★
fc630.5
P1
11

★
fc 630.5
P1
v. 11
0 2007 0540419 8
California State Library

INV. 1898.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, JANUARY 1, 1876. [Number 1.

American Progress.

The beautiful typical picture which we present this week is appropriate to the beginning of the Centennial year. It will lead our readers to stop for a moment and look back upon the way along which our nation has advanced within their own memories, and will suggest also a thought forward to the hights which lie before us. It will bring vividly to mind the lines of our advancement and the obstacles we have overcome. The leading figure has in her right hand the secret of our advancement; the book being a fitting symbol of intelligence, civilization and education. From her left hand fall the wires over which thought flashes from ocean to ocean. Beneath her is spread the material struggles in which we have triumphed, and the foes of civilization which have been put to flight. Upon the right of the picture the light of a good day of enlightment shines upon our favored coast. It is the light which we now enjoy.

To us in this day the glorious facts which are suggested by this engraving seem grand accomplishments. But there is a fnture still beyond, and those who, in that day of even greater things, shall look upon these marks of progress which so delight our thought, may think them small indeed. But thus it is ever-onward.

They think now that Boss Tweed is in Canada.

Meat for England.

It is of interest to agriculturists everywhere in this country to know that meat has been successfully shipped from Philadelphia to the English markets. We noted in our market review two weeks ago that an experimental cargo had been shipped. We are now informed by the cable that the meat arrived in good condition. The shipment from Philadelphia will now continue. This new trade bids fair to open up a new and profitable industry to this country. Meat is a concentrated product and will bear the expense of transportation. It does not yet appear from how great distances supplies of meat for this trade can be drawn, but the inception of the enterprise is of interest to note.

George F. Seward, Nephew of the late Wm. H. Seward, and for some years Consul General for the United States at Shanghae, has been nominated by the President to succeed the late Benjamin P. Avery, as Minister at Peking.

Lewis B. Harris, Jr., son of the senior member of the firm of Harris, Dell & Co., of this city, has been appointed by the Secretary of War to the West Point cadetship from this congressional district, on the recommendation of Hon. William A. Piper.

Mrs. Moulton is still battling with Plymouth church.

Farmers, Support Your Paper.

We strive to make the Rural Press emphatically "The Farmers' Own Paper." We need your assistance—all of you. Write for it. Ask questions on farming topics if you cannot answer those of other writers. Send us timely hints and suggestions for our entire agricultural community. We try to make a fresh, live paper, and to print it on excellent paper and in such good taste that you may feel a pride in sending your own class journal to your old Eastern homes—to any part of the world, in fact. Will you encourage such painstaking on our part by paying in advance for the Rural Press for 1876? We need the help of every intelligent farmer on this coast—now!

The Sacramento *Record* classifies the land of this State as follows: About 60,000,000 acres are adapted to grazing and agricultural purposes, and 23,000,000 consists of mountains, covered to a great extent with heavy timber; about 10,000,000 is covered with arid plains or deserts of but little present value for any purpose; about 3,000,000 acres consists of swamp and overflowed lands unreclaimed, and of but little present value, and the balance, 4,000,000 acres, is covered with lakes, bays, rivers and other permanent water.

There is a probability of war between Japan and Corea.

Duty on Sacking.

We have received a copy of a bill introduced into the House of Representatives December 14th by Mr. Luttrell, with a view to "Repealing the duty on grain sacks and the bagging used for grain, cotton and wool, and all burlaps and gunny cloth." The text of the bill is as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that on and after the first day of May next, all grain sacks, or bagging used for sacking grain, cotton or wool, and all burlaps and gunny cloth, shall be placed on the free list, and no further import-duties shall be collected upon the same; and all grain sacks, or bagging used for grain, cotton or wool, and all burlaps and gunny cloth which may be in the public stores or bonded warehouses on said first day of May, shall be subject to no duty upon the entry thereof for consumption; and all grain sacks, or bagging used for grain, cotton or wool, and all burlaps or gunny cloth remaining in the bonded warehouses on said first day of May, upon which the duties shall have been paid, shall be entitled to a refund of the duties paid.

The bill is in the hands of the Committee on Ways and Means.

The rainfall of the season is slightly over ten inches,

AMERICAN PROGRESS.

CORRESPONDENCE.

The Alameda Avenue, Past and Present.

MESSRS. EDITORS:—Who has not seen or heard of the celebrated Alameda avenue, extending from San Jose to Santa Clara, a distance of three miles, built by the early Franciscan mission fathers about one hundred years ago? Perhaps some readers of the RURAL PRESS, who may not have seen it, or enjoyed the pleasure of a drive under its grand old trees, would, nevertheless, like to learn something of its past history, as well as its present appearance and conditions—especially in these Centennial times, when everything that dates back for a hundred years seems to be regarded with special interest.

Alas! the old landmarks—these relics of past generations—are rapidly passing away before the march of our modern improvements. The old adobe tile-covered houses, with their venerable pear orchards and cactus plants, are passing away with the hands who built and planted them, and in a few more years they will all be numbered among the things of the past. An old Indian named Marcello died a few months ago near Alviso, who, I am informed by the principal of the Santa Clara college, helped to plant the avenue trees in the year 1777. It is said he was a chief, the last one of his tribe. His age could not be ascertained, but it must have been several years over one hundred when he died.

These thoughts were suggested to my mind the other day, while driving along the avenue, by seeing a number of men engaged in trimming up the trees and cutting down those that had been condemned as decaying and dangerous.

Long years ago, when California gloried in her wide stock ranches, covered with wild oats and wild cattle, her low-topped spreading oaks scattered over her valleys, and everybody had leisure enough to enjoy their cooling shades, these old willow trees were permitted to grow free and easy just as they pleased, leaning and sprouting in every direction, as free and regardless of all rules of order and taste as the people who planted them were from the cumbering conventionalities of fashionable life. But these good old quiet, dreamy days are past and gone, and a great change has come. Where the patient mission fathers trudged quietly along the dusty trail from mission to mission under the shade of trees they had planted, the rumbling street cars now pass and re-pass every few minutes, and the numerous fine houses and grounds on every hand, the rattle of passing vehicles, and the hurry and stir of people in pursuit of business or pleasure, all proclaim beyond peradventure that the once lonesome avenue is fast becoming a busy street.

Now, of late years, a gang of men are employed every winter to go along the rows, trimming up the trees and cutting them back, trying to torture them into some kind of decent shape, as I suppose. And every year many of them are condemned to be cut for poor fire wood—"an axe is laid at the root of the tree." Thus they are rapidly passing away, giving place to others of varieties better suited to modern tastes.

As I drove along I had the curiosity to count all of the original avenue trees that remain standing. In the east-side row there are 271, and in the west-side row 330, making 601 trees—only about the one-seventh part of the original number. This calculation is based upon the way the trees stand, in the best preserved portion of the avenue. Most of the trees are the common black willow of the country, but there are a few sycamore and cottonwood. I had also the curiosity to measure one each of the three different kinds, selecting those of about the largest size. The willow measured ten feet in diameter, four feet from the ground, the sycamore eleven feet and the cottonwood twelve and a half feet; though perhaps not one half of the 601 trees would measure half as much. All of the willows are low topped, rough, bushy and crooked, and most of them look old and decaying; while the sycamore and cottonwood are upright and well shaped, and look healthy and vigorous. This may give an idea to what size trees of these kinds will grow in 100 years.

While in the tree measuring notion I drove over to Delmas avenue, San Jose, to interview a fine specimen of the Australian eucalyptus tree, planted only seventeen years ago. It measures six feet in circumference, four feet from the ground, and I estimated its hight at 115 feet. It stands straight as an arrow—a perfect model of beauty, its dark green top towering up far above large Lombardy poplar and willow trees around it. There are thousands of these fine trees about San Jose, over-topping all trees and houses, and there may even be some larger than the one measured; but this will give your more distant readers an idea how rapidly these beautiful trees grow here. Suppose the Alameda avenue had been planted with eucalyptus trees, instead of the low-topped, short-lived willows, one hundred years ago; what kind of avenue trees would they have now made? They would rival the redwoods of the mountains in beauty and size. Or, suppose some one had planted fifty acres of blue gum trees seventeen years ago on land as well as adapted to their growth as that on Delmas avenue—and there is plenty just as good in the valley—what kind of a fortune would he have to-day? Some one, perhaps, may imagine that this tree has been peculiarly favored by an isolated situation, separate from all other trees and shrubs, having a large space of ground to draw its nourishment from. But this is not the case. It has grown in the deep rich soil, near the Gandalupe river, surrounded on all sides by large Lombardy poplars, willow and other trees.

G. W. M.

Santa Clara, Cal., Dec. 21st, 1875.

A Rabbit-Tight Fence.

MESSRS. EDITORS:—If you think it of interest to any of your readers, I would like to give you my experience in building a very cheap and effective rabbit-tight fence. I built one in the spring for that purpose, but it does not quite fulfil all requirements; and as experience is the best teacher, I think I have it now. Of course it may not answer in every case and for all situations, but a proper allowance should be made for that.

For posts, take clear redwood scantlings without sap, 2x4 or 2x3 inches will even do, four and a half to five feet long, and to prevent them from rotting, soak them in hot coal tar, or paint with boiled linseed oil and powdered charcoal, or any other preparation for that purpose. Put them, as you like, from one and a half to two feet (although the former is in most cases sufficient) into the ground, and eight feet apart; then put on a redwood base-board from ten to fourteen inches wide, at least four inches into the ground, (unless you have a hard road to build upon,) and a pine board four to six inches wide, twenty inches above the base board. Take the strongest plaster laths which you can get and saw in two, and put them on with light four-penny nails; if green one inch apart, and if dry one and a quarter inches.

This will give you a fence high enough to keep rabbits and hare out, and should they get in through a gate or otherwise you can easily catch them, unless you get with dogs after the hare, when they sometimes jump over. In building my fence I did not put the lower board into the ground, but sometimes in low places it would be from four to six inches above, and although I put the laths on full length and from two to three inches into the ground, the rabbits would dig through under, or gnaw them off in such places. One hare jumped over when I got after him with the dog, while I caught about twenty-five or thirty hare in the corners, before the whole fence was finished.

Los Angeles, Dec. 21st. DAVID RAAB.

SHEEP AND WOOL.

Combing Wool.

The kind of wool required for worsted is that which will make the smallest and strongest thread with the least nap and the smallest amount of stock; this can only be accomplished by combing the long staple, wool. Combing has two objects to accomplish—the removal of the noils, which is the short fibers at the bottom, and the hard ends at the top of the staple. It also lays the fiber straight by taking out the curl to a great extent. This is done by the warm comb while the wool is moist—wool is the same in character as horn or hoof—warm them and they are easily worked. The wool is worked with a warm comb, and by repeatedly passing through the wool, while warm, it is straightened its entire length and parallel, and thus spun, and the yarn is then called worsted. The ends of the fibers being covered by the process of spinning, the yarns are smooth and lustrous. In worsted, where the strength of the thread depends in some measure upon the length of the splice, the longer the fiber the stronger the thread; yet the strength is increased, if, in proportion to the length of the fiber, we have a proportionate number of serrations, and the scales being shortest in young sheep's wool, the serrations will be most numerous and finest pointed, and will produce the strongest thread.

Older the sheep the longer and more blunted the points of the scales and fewer the serrations, and these, less capable of cohering to each other, cannot produce as strong a thread as young wool. On this account old sheep's wool is frequently styled "slippery-haired;" it will not hang together well in worsted; a firm piece of cloth (stuff) cannot be made from it. Hence the first clip from long combing, or worsted, wool is always the most desirable clip of any produced, to the manufacturer.

Card, or cloth wool, is wool fitted for being carded. By this process the fibers are placed in every possible direction in regard to each other, adhering by the serrations of the fiber, which are more numerous in the wool adapted to carding. They are thus adapted or fitted for felting, and the ends of the fiber are free to be drawn out into the nap, and conceal the thread and produce a beautiful smooth face to the cloth. While card wools are required to be fine, or comparatively so, short in staple, and for the highest fabrics full of evenly developed spiral curls and serrations, qualities possessed by the wool of which the Merino and Saxony fleeces are types. The combing wools, on the contrary, must be long in staple, from four to seven inches, comparatively coarse, few spiral curls and serrations and possessing a distinct luster. These qualities are possessed in perfection by the English sheep of the Lincolnshire, Leicester and Cotswold races, and a less degree by the Cordova wools of the Argentine Republic, and the Donskoi wool of Russia.

Comparatively long fine wools of the Merino race, from two and a half to three inches or more in length, are combed for making coburgs, merinoes, and similar fabrics, but they are not generally classed in the trade as combing or worsted wools, but frequently called fine delaine wool. An unprecedented demand for these wools has arisen in all manufacturing nations within the past ten or fifteen years. This is due, first, to the vast improvement in machinery for combing made within that period, and secondly, to the late scarcity of cotton, and to the discovery that by the use of these wools with cotton wraps, an admirable substitute is found for fabrics formerly made from the fiber of the alpaca.

THE WOOL MARKET.—In New York the market has remained quiet for several weeks, and there is nothing new to add. In California grades, the low price of fall has induced considerable trade from those manufacturers whose mills are employed in making flannel; but beside this consideration, there has been but little business. Sales amounted to 26,000 pounds and 40 bales fall at 18@23½c; 60 bags and 12,000 pounds Scoured fall at 59c; 15 bales spring at 30c; 2,500 pounds Burry spring at 23@23½c; 8 bales Burry spring, private.

At Boston the wool market continues as for the past month. In California wool of good condition there is a ready market. However, the market does not harden; still, an occasional advance on last month's quotation is secured, especially in choice lots of fall and spring, which are scarce; sales 214,000 pounds fall at 15@24c; 95,000 pounds spring at 21@36c; 41,000 pounds Pulled at 41@41½c, but chiefly on private terms; 10,000 pounds Scoured at 65c.

HOW TO KILL SHEEP.—A correspondent of the Indiana *Farmer* says: "If you want good, sweet mutton, kill your sheep without worrying and fatigue; the less exercise the better. Hang up at once; now change ends; hang him by the head, and skin down to the tail; the job is done in half the time, and neatly. It is not the wool that gives mutton the sheep taste and smell; it is the food during exercise, and after being killed, hence the necessity of speedy work until cleaned."

Rainfall.

A London paper says: "In the Paris *Bulletin International* for June 30th last, Professor Raulin, of Bordeaux, gives the results of an examination of a comparison of the gross amount of the rainfall for the ten years, 1851-60, with that for the ten years, 1861-70, from which it is shown that, as regards the southern half of France, the rainfall during the former of these decennial periods exceeded that of the latter at forty-six out the fifty-three stations at which observations were made for twenty years. A similar distribution of the rainfall during these two decennial periods appears to have taken place, with few exceptions, over a large area, embracing the British Isles, France, Germany, Italy, Spain, the basin of the Mediterranean, and Algiers. The point is an interesting one, and we hope that meteorologists will inquire how far the rainfall observations of their respective countries agree with the result obtained by Professor Raulin for the southern half of France."

Such facts as these go to show how little is known of meteorology and its laws. Most of our newspapers have had much to say of late years about the connection of forests with rainfall. That there may be some trifling influence in favor of more rain with more trees in some cases is possible, but here we have an average increase of rain in a decade from a part of the world which in the same time would show a decrease of woodland. Woodland naturally exists to the greatest extent in those countries where the precipitation of moisture is favorable to the ripening of seeds and their subsequent germination. The woods are a consequence, not a cause, of the moist climate. But the fact of the rainfall in comparison with wood-clearing being found at one time to favor a denudation theory, and at another time to oppose it, should be evidence that there is little connection between the two.—*Forney's Weekly Press.*

DON'T allow your carriage to rattle like a threshing machine. Washers of sole-leather on the spindles of axle-trees will stop the clatter caused by too much "play." A piece of rubber put in between the thill iron and clip will silence matters there; and a little coal oil on the circle or fifth wheel, will stop squeaking. Where nuts work loose, cut a thread in front of them with a cold chisel after screwing them up tight.

IT is a well known fact that clover has the singular property of being able to extract from the atmosphere, without the aid of manure or stimulants, nitrogen sufficient for its own proper growth and nourishment. The straw and roots of the clover contain a large amount of nitrogen, and these, when ploughed down, are therefore as valuable to the next crop sown as a copious supply of guano.

STOCK BREEDERS.

How to Know a Good Bull.

There is no more important matter coming before the intelligence of the stock grower than the selection of a good bull. We are pleased to find in the reports of the recent Indiana Short Horn Convention some plain, straightforward remarks on this subject by Mr. Chas. Lowder. As will appear from our summary of his positions, Mr. Lowder does not attach importance to name and pedigree unless it be a worthy name and a pedigree valuable in quality rather than quantity. A pedigree, if it be the right one, is a surety that a man who breeds will obtain what he desires. This is what we need for the improvement of our live stock on this coast. We cannot afford to be led by a name alone, but in gaining aid in fine blood from the older districts, we want the true article which will enable us to build up breeds here which will be worthy of the State in all points of value. It is because Mr. Lowder's remarks have this true ring of value and utility that we select from them as follows:

Bulls are valuable only as they are capable of producing uniform good stock. The progressive farmer having come to a correct conclusion as to what constitutes excellence in a good steer, and knowing what kind of cows he has to breed from, would naturally inquire, how should I know a good bull? And what are the characteristics of a good breeding bull? As a law of nature, "like tends to produce like." A bull tends to breed like himself. He transmits to his offspring that only which he has himself. If his ancestors, both male and female, were uniform in all that constitutes excellence, and he is individually good, he may be depended upon for producing good stock. But if part of his ancestors only were good, and the others bad, he may transmit to his offspring bad qualities as well as good. He can transmit only what he has himself. What he has is mainly derived from his ancestors, though he may have gained or lost by a good or bad system of breeding, feeding and training.

Hence, the pedigree of a bull should be good. This is of first importance. That is, as near all the blood in his veins as possible, should be derived from good ancestors. A short pedigree, with only five or six sires, if they were all good, may be worth more than a long pedigree, descended from Favorite, if the last five or six sires were inferior bulls. A long pedigree is not necessarily a good one, nor a short one absolutely a bad one. The value of a pedigree is not only estimated by its length, but also by its quality.

In selecting a bull to breed from, the value of his dam should be taken into consideration as well as that of the sire. Her milking qualities should not be overlooked. A bull from a cow that is a good milker is worth more, other things being equal, than one from a poor milker. As hinted above, the value of a bull depends upon his power to produce uniform good calves. Some bulls of great individual merit lack this power, while other bulls throw calves better than themselves or the cows to which they are bred. This is one of the characteristics of a good bull.

It is impossible for any one to always tell how bulls will breed until they are tested; but the intelligent and careful farmer or herdsman can guess with approximate certainty as to the general character of the get. A good breeding bull must not only be like a bull, but he must look like a bull. He must be masculine in appearance. This holds good as well in the pure Shorthorn as in the scrub or any other breed. A good bull is as much entitled to the peculiar eye, head, horn, neck, shoulder and chest that characterizes him as a male, as a man is entitled to his beard and the peculiar expression of the countenance. A bull with light jaws, narrow face and forehead, slim horns, thin neck and shoulders is seldom an impressive sire of good things. He must be masculine in appearance. This does not imply that he must be coarse; on the contrary, he should be fine. Coarseness may be defined as unevenness, while fineness is the result of uniformity. Each part should be such that it fits smoothly and evenly to those adjoining it.

As has been said above, a bull is only valuable as his breeding is valuable. This depends, of course, to some extent, upon the cows to which he is used. Great extremes between sire and dam seldom match well together. The intelligent breeder, in making selection of his breeding bull, will have regard to the cows with which he is to be coupled. If they are under size, they will select a bull of good size, one that is not too large. Great extremes don't mix well. If his cows are very large and inclined to breed too much bone for the amount of flesh, he will select a bull of rather compact form and good fleshy qualities, but one that is not too much under size. The skillful breeder, before selecting his bull, should determine what he wants, and should be able to give an intelligent reason why he wants him; and after having made his purchase should know how to use him. The ability to answer intelligently the what, why and how, is as indispensable to the successful breeder of neat cattle as it is to the man in any other profession.

The Swine Yard.

Cutting Up and Curing.

It is no coarse art to guide the keen knife blade through the white substance of the slain swine so that each joint shall be smoothly severed and each portion laid off in a most convenient shape. Nothing looks more shiftless than joints of meat haggled and misshapen. Every farmer should be master of the butcher's art. If he do not practice it himself, he should be able to give the hired man such practical instruction as will make him do clean work.

We find in the correspondence of the *Farmer's Home Journal* some directions concerning cutting up and curing pork, which will be of much value to our readers at this time:

Have the hog laid on his back on a stout, clean bench, cut off the head close to the base. If the hog is large, there will come off a considerable collar, between head and shoulders, which pickled or dry is useful for cooking with vegetables. Separate the jowl from the face at the natural joint; open the skull lengthwise, and take out the brains, esteemed a luxury. Then with a sharp knife remove the backbone the whole length, then the long strip of fat underlying it, leaving about one inch of fat covering the spinal column.

The leaf lard, if not before taken out for the housewife's convenience, is removed, as is also the tenderloin—a fishy-shaped piece of flesh—often used for sausage, but which makes delicious steak. The middling or sides are now cut out, leaving the shoulders square-shaped and the hams pointed, or they may be rounded to your taste. The spare ribs are usually wholly removed from the sides, with but little meat adhering. It is the sides of small young hogs cured as hams that bear the name of breakfast bacon. The sausage meat comes chiefly in strips from the backbone, part of which may also be used as steak. The lean trimmings from about the joints are used for sausage, the fat scraps rendered up with the backbone lard.

The thick part of the backbone that lies between the shoulders, called grisken or chine, is separated from the tapering bony part called backbone by way of distinction and used fresh. The chines are smoked with the jowls, and used in late winter or spring.

When your meat is to be pickled, it should be dusted lightly with saltpeter, sprinkled with salt, and allowed to drain twenty-four hours, then plunged into pickle, and kept under with a weight. It is good policy to pickle a portion of the sides. They, after soaking, are sweeter to cook with vegetables, and the grease fried out from them is much more useful than that of smoked meat.

If your meat is to be dry salted, allow one teaspoonful of pulverized saltpeter to one gallon of salt, and keep the mixture warm beside you. Put on a hog's ear as a mitten, and rub each piece of meat thoroughly. Then pack skin side down, ham upon ham, side upon side, strewing on salt abundantly. It is best to put large and small pieces in different boxes for the convenience of getting at them to hang up, at the different times they will come into readiness. The weather has so much to do with the time that meat requires to take salt that no particular time can be specified for leaving it in.

The best test is to try a medium-sized ham; if salt enough, all similar and smaller pieces are surely ready, and it is well to remember that the saltness increases in drying.

Ribs and steaks should be kept in a cold dark place without salting until ready for use. If you have many, or the weather is warm, they keep better in pickle than dry salt. Many persons turn and rub their meat frequently. I have never practiced this and have never lost any.

When the meat is ready for smoking, dip the hocks of the joints in ground black pepper and dust the raw surface thickly with it. Sacks after this treatment may be used for double security, and I think bacon high and dry is sweeter than packed in any substance. For sugar-cured hams I append the best recipe I have ever used, though troublesome:

English recipe for sugar-curing hams—So soon as the meat comes from the butcher's hand, rub it thoroughly with fine salt. Repeat this four days, keeping the meat where it can drain. The fourth day rub it with saltpeter and a handful of common salt, allowing one pound of saltpetre to seventy pounds of meat. Now mix one pound of brown sugar and one of molasses, rub over the ham every day for a fortnight, and then smoke with hickory chips or cobs. Hams should be hung highest in the meat-house, because there they are less liable to the attacks of insects, for insects do not so much infest high places—unlike human pests.

Pickle—Make eight gallons of brine strong enough to float an egg; add two pounds of brown sugar or a quart of molasses, and four ounces of saltpeter; boil and skim clean and pour cold on your meat. Meat intended for smoking should remain in pickle about four weeks. This pickle can be boiled over, and with a fresh cup of sugar and salt used all summer. Some persons use as much soda as saltpeter. It will correct acidity, but I think impairs the flavor of meat.

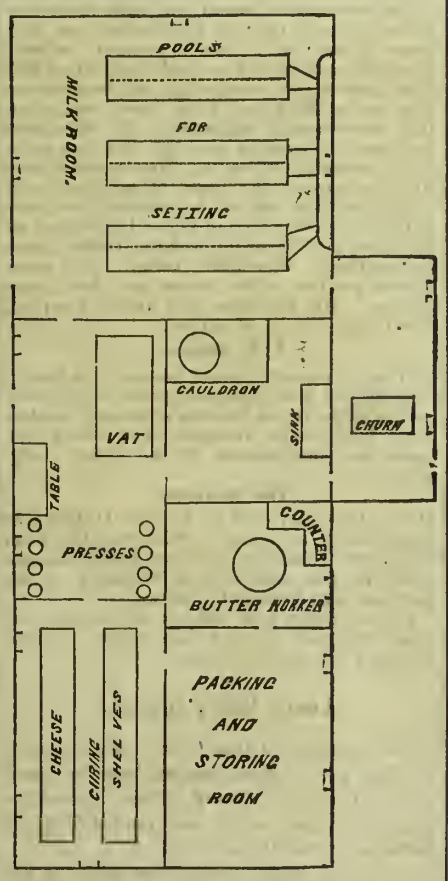
The Dairy.

A California Creamery.

During our recent visit to the dairy ranches on Point Reyes, we had the pleasure of examining the creamery building and apparatus used by Henry Claussen, one of the tenants of Chas. Webb Howard. As there is embodied in this establishment a method of dairying not common in this State, we have prepared for our readers an illustrated description, which we doubt not will be suggestive to many who are considering ways in which the products of milk may be most profitably placed upon the market.

This creamery was designed by the father of the present tenant. He was a Swede by nationality and embodied in his plan some features which are characteristic of Swedish dairying. The money success which the establishment has attained demonstrates the practicability of the imported method, under conditions which prevail in some parts of this State.

The main building is twenty-five feet wide and seventy-five feet long; one story and a half high. It is frame, boarded up and down and the exterior neatly whitened. The windows are furnished with tight outside blinds, which do much to maintain a proper temperature within. The following diagram shows the ground plan:



PLAN OF CREAMERY.

Entering the creamery, the visitor comes first into the milk room. This is an apartment which gives the inspector a favorable impression at the outset. It is neatly painted, floor, walls and ceiling. In the walls there are ventilators on three sides, a row near the ceiling and another row near the floor. In the floor constructed the vats for setting the milk in running water, or "pools," as they are called. These pools are built water tight, and are about eighteen inches wide by two feet deep. Two of these vats are placed side by side, as in the diagram, the dotted line representing a plank along which a man can walk. The water flows into the pools from the spring through an arrangement of iron pipes shown on the right, and the overflow is carried away under the floor, after the water has flowed around the vat. The milk is set in large cans or coolers, about fifteen inches in diameter and two feet deep. These are filled and placed in the pool and the cool water flows around them, until the milk becomes cool as the water. Covers are then placed over the cans and the milk allowed to stand thirty-six hours. Cooling in this way allows the cream to rise completely before the milk sours.

Handling the Milk.

As the word creamery implies, Mr. Claussen uses his milk for both butter and cheese. When the cream has fully risen, at the end of thirty-six hours, the cans are skimmed; the cream from all the cans is mixed in a large oak cask and set aside to sour before churning. These casks are set on wheels, so that the cream can be rolled into the churn room without lifting or carrying. After the cream has been removed, the sweet skim milk is poured from the cans into the cheese vat which stands in the next room. This milk is totally devoid of cream, and no effort is made to enrich it. It is made up into the toughest kind of skim cheese and has almost the durability of India rubber. Mr. Claussen does not make this cheese because he thinks it good, but because the market calls for it and he is able to sell it at a good price. He heats the milk in the cheese vat up to eighty degrees Fabrenheit and adds rennet enough to coagulate in twenty minutes. As soon as the curd is cut, he lets in the cool water and does not "cook his curd" at all. The curd is then salted and ground in a curd mill of home construction and put to press. This process makes a peculiar cheese; it shows no signs of softening or "breaking down" as is common with ripe cheese. We have described Mr. Claussen's method because he finds a good market for cheese of this kind; of course better cheese, according to the common idea of good cheese, can be made from skim milk; by using more rennet, and thus getting quicker coagulation, and varying the process in other ways, as practical cheese makers will understand, he could get a softer and to all appearances a richer cheese. But Mr. Claussen is a good business man and makes what he can sell. He sold during the last year 45,000 pounds of cheese at an average of nine cents a pound. It does not require much figuring to show that he gained more money from the cheese than he could from pork which the same milk would have made.

From the diagram it can be seen that the skim milk is moved in a straight line after it leaves the pools. It goes from the pools to the cheese vat, from the vat to the presses, and from the presses to the shelves in the curing room. This arrangement is convenient and praiseworthy. The curing of the style of cheese described above is of course very slow. We saw a cheese three months old which showed scarcely any signs of softening. Mr. Claussen's customers do not wait for curing; they take the cheese fresh, when it is springy and elastic.

The Butter Making.

It can also be seen from the diagram which way the cream takes after being skimmed from the cooling cans. When it is soured in the cask it is rolled into the churn room, through the door connecting with the milk room. The cream is churned in a large box churn, revolved by a horse power outside the building. The churn is rectangular and oblong, about two and a half by five feet. It turns on gudgeons fastened at the center of the ends. It is an exceedingly simple arrangement, and churns the cream by its falling from side to side, as the box revolves. This style of churn is common in the Point Reyes dairies, and is doubtless instrumental in producing the fine butter for which the ranches are noted. The cream is thrown from side to side, and the oil globules are broken by pressure and concussion instead of friction. This is the true principle involved in churning. It preserves the natural grain in which the butter particles congregate. Churning by friction, as is done in some of the modern complicated churns, smashes these particles and gives the butter a salvy form.

From the churn room the butter goes to the butter worker. This is an arrangement invented by Captain Allen, when he was dairying on Point Reyes. It consists of a revolving table, on which the butter is placed, and a lever (catching in a movable socket on one end, with a handle on the other,) is pressed down upon it continuously, until the buttermilk is expelled. As the table revolves the lever strikes every part of the mass, and the working is very complete. This apparatus, as well as the churn, seems well fitted to preserve the granular form of the butter particles, providing the lever is pushed down perpendicularly, and not allowed to slide obliquely over the surface.

On the counter, near the butter worker, the butter is formed in the cylindrical rolls in which it comes to the market. The mold used is of *lignum vitæ*, opening in two parts, like a bullet mold. The handles are of brass. The implement does its work well.

We have not described Mr. Claussen's creamery because we think it perfect, but because it offers a basis for suggestion and improvement. We trust our dairy readers will study the plan and write us the comments their experience may suggest. Let us have a free and full discussion of all topics connected with dairy husbandry, for this is a growing industry on this coast, and one which merits attention.

When to Cut Timber.—A correspondent of the New Jersey *Herald* says: If oak, hickory, or chestnut timber is felled in the eighth month, (August,) in the second running of the sap, and barked, quite a large tree will season perfectly, and even the twigs will remain sound for years; whereas that cut in winter, and remaining until next fall (as thick as your wrist,) will be completely sap-rotten, and be almost unfit for any purpose. The body of the oak split into rails will not last more than ten or twelve years. Chestnuts will last long, but no comparison to that cut in the eighth month. Hickory cut in the eighth month is not subject to be worm-eaten, and will last a longer time for fencing.

Assisting the Germination of Seeds.—According to Bottger, a moderately concentrated solution of caustic soda or potash seems to promote the germination of seeds even more than ammonia, especially of coffee beans, which germinate with difficulty. After soaking a few hours in diluted potash solution, they often put forth snow white radicles.

The Horse.

The Art of Breeding.

One of the most ardent lovers of horses in the country is Rev. W. H. H. Murray, of Boston. At the recent meeting of the Massachusetts State Board of Agriculture, Mr. Murray made an address on the Art of Breeding Horses. As his positions are of universal interest wherever the nobility of the horse is maintained, we quote for our readers the following abstract of the address from the Boston *Cultivator:* "Mr. Murray began by remarking that the propagation of life organisms is one of the most beautiful and divine mysteries of the universe, and the discussion of it should be in a grave, reverential spirit, thus he approached it, and thus had he learned what he knows of the subject. He found the bottom fact of his subject in the bible—that "everything shall produce of its kind, according to its seed." Find your typical horse of each sex, and then you may realize the idea of the "perfect horse."

No business can succeed until its laws are so well understood that results can be known before they appear. From whatever cause, New England has hitherto made a failure of breeding fine stock. His idea of the cause was that it was ignorance. He thought ignorance at the bottom of nearly all failures. Breeding is generally done by men who have neither time nor capacity to study the subject with the careful studentship which it demands.

As a rule, extraordinary offspring were the results of extraordinary parents. Yet it often happens that a good sire and dam produce a poor colt. So another step must be taken, and we must decide that parents must complement each other in temperament. A sire to be desirable must be a good horse. He must not be chosen simply on account of his special beauty in any one direction, but of his perfection as a whole. Then, after that, he must have the particular point you wish in your colt in prominence. Thirdly, the sire being good as a whole, and specially good in certain points, he must have that mystic power of reproducing himself which is the rarest among horses. He did not know of over twenty or twenty-three in America and eleven in New England that had this power. The highest type in this direction, he had no hesitation in saying, was Justin Morgan, a little horse which stamped its image on all its descendants, and not only that, but also gave to its desceudants the power to transmit the same image.

The question is often asked, which influences the colt more, the sire or dam? The Arabs have it that the foal follows the sire. They have kept their breed of horses for 3,000 years in perfection unchanged, and that is proof that they have known and obeyed the laws of breeding for that time. He was inclined to believe that they were right. Probably it was understood in that maxim that such dams only should be chosen as would not interfere with the sire's transmitting himself. Then they chose only the very best stock horses, and treated them like kings, as they deserved to be.

A principle that should always be followed is never to breed to an ugly sire or dam. The offspring will always reflect the character of the parents, and it is a crime to breed an ugly-tempered colt. Again, breeding should never be allowed except in proper nervous condition. Never when the sire is kept fat like a hog; never when he is drawn out fine for some great nervous feat. Size, color, health, temperament and speed are the great essentials of a good stock horse. The speaker sought for beauty first in his colts. The time was when a horse was considered valuable if he could "go," no matter how he looked. But now beauty is considered of more importance. So he bred first for beauty, secondly for docility, and thirdly for speed.

He had been asked to tell what it was that made a horse trot. He would say what it was not; it was not the whip, nor was it the way the horse was driven. The best way to drive a horse is to let him alone. He wished it was the custom to drive without reins. There were a few gifted, propbetic men, like Charlie Green, Budd Doble, Woodruff, who knew more than both of them, who know exactly what to do, but for common drivers the best way was to let the horse alone. If a horse be a trotter he didn't need be made one; he would show it. If he wasn't a trotter, he, Mr. Murray, didn't want to have anything to do with any attempt to make him one.

The Germination of Seeds in Ice.—Some interesting experiments on the growth of seeds have been conducted by M. Uloth. These were undertaken with a view to determine whether seeds could be made to germinate in ice, and the process may be described as follows: Seeds of various species were placed in grooves made in ice cakes, and over the grooved surface other plates of ice were laid, and the whole removed to a cool cellar in January, and there they remained till the following May. An examination then made disclosed the fact that many of the seeds had actually germinated, the roots penetrating into the ice. It is but natural, says *Appleton's Journal,* that facts of this startling character should give rise to controversy, and so we are not surprised to learn that opposite views are entertained as to whence the heat needed for the process of growth was obtained. In the opinion of the experimenter, it was obtained, or rather liberated, in the growth of the roots while forcing themselves into the ice.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are at No. 6 Liedesdorff street, in rear of the Grangers' Bank of California, No. 415 California street San Francisco.

The Grangers' Business Association of California is at No. 351 Market St.

To Secretaries and Treasurers of Subordinate Granges.

Hereafter you will please make your reports, and pay the quarterly dues to the Secretary of the State Grange.

Both reports will be made on one blank, which will be forwarded to the Secretary of your Grange, from this office.

Treasurers who remit by express will please have the report accompanying the money made up in the same package with their quarterly dues.

Be sure to put the name of your Grange and post office address on all packages and communications to this office; it prevents mistakes.

AMOS ADAMS,
Secretary of the State Grange,
San Francisco, California.

San Francisco, Oct. 26th, 1875.

GRANGERS' BANK OF CALIFORNIA.

SAN FRANCISCO, December 1st, 1875.

To the Stockholders of the Grangers' Bank of California:

(THIRD INSTALLMENT,)

You are hereby notified that, at a meeting of the Directors of the Grangers' Bank of California, which was held on the 30th of November, an installment of 10 per cent. was levied on the capital stock of said Bank, made due and payable on the 1st day of January, 1876, to the Cashier, at the office of the Bank, No. 415 California street. Respectfully,

G. W. COLBY, President,
C. J. CRESSEY, Vice-President.

New Constitution and By-Laws.

We have the amended form of the Constitution and By-Laws and Rules of Order of the State Grange; the Declaration of Purposes, Constitution and By-Laws of the National Grange, and blank form of Subordinate Grange. Constitution and By-Laws now printed in one pamphlet. Granges supplied at five cents per copy, post paid, from the RURAL PRESS office, San Francisco.

GRANGE DIRECTORY.—We have concluded to postpone the printing of our Grange Directory until the first week in February, in order that it may embrace the records of elections in the several Granges which are now coming in each week. At that time we shall give a full list of the officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries.

ELECTION RETURNS.—Secretaries will please send us, as early as possible, the result of their election of officers. Write plainly (on one side only) in the following form:—"Napa Grange, No. 1, Napa City. Election, Dec. 4.—J. B. Saul, M.; J. W. Ward, Jr., O.; Harry Haskell, Sec.;" and so on, giving a full list and also the names of trustees and business agent. We should like to receive further correspondence from Secretaries

Christmas with the Elk Grove Grangers.

MESSRS. EDITORS:—It would be a pity if so beautiful an illustration of the uses of the Order to which we are pledged by so many delightful associations should pass unnoticed. Our Elk Grove friends bade us to their Christmas feast, and though we feared our hearts would be in Live Oak hall, we, that is I, promised to go some days in advance of the notice of the intended feast at home. Where the people came from that Christmas morning I cannot guess. The outlook from the hall windows is over a wide, sparsely settled prairie, but they came in numbers, the Patrons and their invited guests, until the building was full of happy families, and full to overflowing of good things for the waiting tables. If there is any especially delicious eatable which farmers raise that was not brought forth that day I cannot imagine what it was. This is a poor year for potatoes, but the whitest, mealiest, most appetizing potatoes were served smoking hot, with warm chicken pies, mince pies, Indian puddings, until everybody shook their heads even at the splendid bunches of raisins, the apples and nuts. Then came the feast of reason and flow of soul, the latter expressed in the gifts lavishly displayed on the Christmas trees. It took three good sized trees to hold the presents. I noticed that many of them were substantially useful things, but there was no lack of toys and goodies. A dear little Patroness near me opened her eyes so wide and looked such a picture of pure content when a miniature cooking stove with its tin kettles and boiler was put into her hands, that I knew some good Granger would one day find in her his "household treasure." When so much was good and pleasant, how can I particularize? The officers of the Grange were unsparing in their efforts to make us all happy, and I am sure they succeeded. No one was overlooked or forgotten. The elders had a Christmas offering from the late Lecturer of Temescal Grange, the young folks had a dance in the evening, the little ones the never failing expectations and delights of the Christmas trees.

Among other guests I met Mr. Williamson, of Sacramento, whose fine nursery will be the objective point of my morning walks, if ever the fog lightens and the mud dries. We should have brought photographs of the sun and moon, for, excepting on Christmas day, we have not seen their faces since we came here, after a lengthened rainy spell in Oakland.

Our Elk Grove Patrons have a very pleasant hall, and though they, with many other Granges, talk about needing a revival, a proposal to close the Grange would bring out an expression of feeling which would prove how well its social features are appreciated. The churches have their chills and fevers, and we need not expect a uniform temperature to be maintained in so new an organization as ours. But if any one feels a coldness, let him bestir himself for the good of the Order, and I am sure it will pass away. JEANNE C. CARR.

December 26th, 1875.

Christmas at Nord Grange.

An hour ago I wouldn't have believed that anything could cajole me from my surreptitious doll dressing and handkerchief-box making, which assumes increased importance as Christmas day approaches; but a few moments spent with my favorite contributors to the RURAL PRESS, have inspired me with a desire to report our election of officers at Nord Grange, and chat a little on matters in general, on the golden rule principle—If that is sanction enough for attempting a hasty letter.

First of all, then, I rejoice to say that after an absence of six months, we found Nord Grange alive and ready for a busy winter campaign, as denoted by a full attendance on election day, Saturday, Dec. 11th, the sisters being all present excepting three. After a little harmless electioneering, which seemed to lend sociability and spice to the occasion, our officers for the ensuing year were declared duly elected. The result seemed to be especially harmonizing, so that when the matter of a Christmas tree was named, with one consent it was agreed that nothing but storms and floods should prevent our enjoying a repetition of last year's festivities on the coming holiday. It being rather a late day to consider the subject, we resolved ourselves into a committee of the whole, with an especial committee on decoration; and, at present, the prospect is most favorable for a grand success.

Bachelors and all persons generously disposed, were invited to put their hands in their pockets for the small sum required to furnish the candy bags, tapers and presents for any children who would otherwise be neglected; and for the rest, each family supplies its members with gifts suited to the occasion, so that we anticipate a good time at very little labor or expense to individuals.

At the risk of the aforesaid dolls remaining unclothed, I will add, that Butte county rejoices in just the kind of weather that brings gladness to the heart of the farmer—the whole country presenting an appearance of a beautiful lawn, such is the growth of volunteer and summer fallowed crops of wheat and barley. We have had no frosts, and in the garden our orange trees and vines are as green as on the 4th of July.

Something Interesting for the Little Folks.

We were rather dreading the long storms of winter for the little ones, but since our return to rural life, about a month ago, our little six year old has hit upon a plan of amusing herself so novel, that I will describe it for the benefit of mothers who have children endowed with an imagination.

Having a natural love of animals she has searched the library for pictures of them, but this winter, not being content with tamely viewing them in books, she conceived the notion of carefully cutting them out, pasting upon thick paper, and thus has stocked an imaginary ranch with blooded animals of all sorts. I must hasten to explain that the only books thus mutilated are public documents, of which we are the happy possessors, and I hereby tender my thanks to all who have from time to time kindly remembered us in this way. The reading still remains intact for the benefit of future generations.

All illustrated agricultural pamphlets are eminently useful in adding to the collection, although it may be discouraging to publishers to know that they are used in this way. The cows constitute a specialty, all being provided with fancy names and a pedigree, thus making them extremely real, the only fine point, however, which their mistress recognizes being a "good bag," which was for some time faithfully milked night and morning, producing unlimited quantities of imperceptible milk in invisible milk pails. To be sure, the little one announced at one time that she had "turned them all out to run with their calves," (following the too common practice among shiftless farmers,) but they are still ready for a rainy day, and it has occurred to us that a dairy may some day be as fitting business for our daughter as bee keeping has come to be for other girls. So we humor the conceit that the flowers on our carpets are pastures for these harmless animals, and even tolerate the "really grass" which is sometimes brought into the play room to appease their supposed hunger. And now, to you, and all who enliven the columns of our cherished RURAL with their thoughts, we wish a merry Christmas and happy New Year. "May your shadow never grow less," but always greater, is the hope of your constant reader,

CARRIE A. COLBY.

Nord, Butte county, Cal., Dec. 18th, 1875.

The New Officers.

Our readers will no doubt be pleased to learn something of the newly elected officers of the National Grange. A late number of the Louisville *Courier-Journal* gives the following brief biographical notices of the principal ones:

The Master.

Judge John Thompson Jones is a native of Essex county, Virginia, having been born in that county in the year 1813; was educated at the University of Virginia, graduating in the year 1833, having taken the law course. He removed to within ten miles of Helena, Philips county, Arkansas, where he settled on a plantation, and has lived there since that time. Was elected judge of the First Judicial Circuit of Arkansas in 1842, and again in 1846, serving two terms of four years each. He was elected to the Senate of the United States in 1866, before the State was reconstructed, and was not admitted to a seat, this being the only political office for which he ever offered.

He retired from the bench in 1850, and has been devoted to planting ever since, as well as having carried on a large planting interest while on the bench.

Judge Jones has two large plantations in Philips county, Arkansas, cultivating yearly about 1,000 acres, and one on Red river having about 400 acres in cultivation. His first care was to have an abundant provision crop, in which he never failed, in addition to making about 800 bales of cotton annually, and other crops in proportion. His election gives great satisfaction, and it is felt that the Grange will prosper under his leadership.

The Overseer.

Mr. J. J. Woodman, the newly-elected Overseer, is a native of Vermont, having been born in the township of Sutton, in Caledonia county of that State, in the year 1825, being now fifty years of age, but is much younger looking. His father moved to New York State when Mr. Woodman was six years of age, and from thence removed to Michigan, forty years ago, when that State was a wilderness. Mr. Woodman has spent ten years in teaching, and two years in the mines of California. Has owned a farm since arriving at the years of manhood, and most all of that time has been actively engaged in farming. Was elected to the Legislature of Michigan in 1860, and served for twelve years consecutively thereafter, being two years speaker *pro tem.* of the House, and four years speaker. Mr. Woodman now lives at Pawpaw, Van Buren county, Michigan.

A. B. Smedley,

Of Iowa, the newly-elected lecturer, is a bright, clear-headed man, who has gained high prominence in the Order from an admirably written work on Grange Jurisprudence, which has made his name familiar to the Order everywhere.

The Secretary,

Mr. O. H. Kelley, was re-elected. Of him it is unnecessary to speak. Wherever the term "Granger" is known, there is Kelley known also. He has made a good Secretary in the past, and will do so in the future.

Of the other new officers we are, as yet, unable to speak biographically, from a failure to obtain the necessary data.

Linn's Valley Grange.

The Secretary of this Grange, Bro. Samuel E Reed, writes an encouraging letter in regard to it, and sends us a list of officers elected for the ensuing year, which was published in our last issue. Bro. R. says:

"You may think strange that none of the former incumbents were re-elected to the same office, not because they were not efficient or well beloved, but because there was plenty of material equally good and willing to labor on this 'mystic form of ours,' and give a season of rest to those who have borne the burdens of establishing the Order here, and in building a house in which we may meet in future, and call it our house. All this has been accomplished by the people of Linn's valley, within a year and a half, and the house is almost paid for, perhaps $400, a little more or less, of debt; but that is pretty good for a community so isolated, and individually so impecunious as we have been during the past dry season, with a failure of crops, and many of us no credit, even among our friends.

"The festival, which will take place on the last Friday of this month, at the Grange hall in Glennville, is to be a grand affair, and I hope will reduce our indebtedness much. We are on the water and bound to swim or drown; let us go clear; don't weight us down with compounds; quarterly, gentlemen, if you please."

In regard to the matter of bank accommodations referred to by our correspondent, everything will be fully explained and all information given on application to the bank itself. Our Linn valley brothers and all others may rely upon it that every accommodation, within reason, is rendered by the bank to Patrons.

A LIVE ORDER.—No better evidence of the active condition of the Grange body in this State could be desired than the testimony borne by our columns in our last issue. The "Election of Officers" space extended itself into more than two columns and contained reports from thirty-three Granges. This is more than ever appeared in a single issue before.

Election of Officers.

ALLIANCE GRANGE, No. 75, AZUSA.—Jas. D. Durfee, M.; C. Vaughn, O.; J. W. Marshall, L.; C. H. Shorey, S; H. Cleveland, A. S.; Wm. Gwinn, C.; Mrs. D. B. Durfee, T.; E. M. Haskell, Sec'y; H. Smoot, G. K.; Mrs. R. J. Dougherty, Ceres; Miss E. V. Reeves, Pomona; Mrs. M. Vaughn, Flora; Miss M. J. Reeves, L. A. S.

ANTIOCH GRANGE, No. 145, ANTIOCH, CAL.—Election, December 4th and 18th: Josiah Wills, M.; F. J. Quant, O.; R. G. Dean, L.; Seth Davison, S.; S. Abbott Sellers, A. S.; H. B. Juett, C.; G. W. Kimball, T.; Mrs. S. A. Sellers, Sec'y; D. S. Hawkins, G. K.; Mrs. J. A. Dean, Ceres; Mrs. M. L. Phelps, Pomona; Mrs. Adelia Schott, Flora; Mrs. Olive Vesl, L. A. S.; R. G. Dean, Trustee.

BALLENA GRANGE, No. 237, BALLENA, CAL.—Election, Dec. 18th: C. O. Tucker, M.; W. C. Billingsly, O.; A. W. Luckett, L.; D. Halstead, S.; J. J. Sandeman, A. S.; M. C. Casner, C.; Mrs. W. C. Billingsly, T.; Mrs. C. O. Tucker, Sec'y.; A. Green, G. K.; Mrs. M. C. Casner, Ceres; Mrs. J. Halstead, Pomona; Mrs. M. D. Putman, Flora; C. O. Tucker, J. J. Sandeman, W. C. Billingsly, Trustees.

BENNETT VALLEY GRANGE, No. 16, SONOMA Co.—Election, Dec. 25th: A. Burnham, M.; S. C. Story, O.; I. DeTurk, L.; John Burnham, S.; R. Allen, A. S.; N. Carr, C.; B. Lacque, T.; G. N. Whitaker, Sec'y.; A. Lacque, G. K.; Mrs. A. Lacque, Ceres; Mrs. E. E. Whitaker, Pomona; Miss B. Burnham, Flora; B. Lacque, N. Carr, W. Phillips, Trustees.

BERRYESSA GRANGE, No. 206, MONTICELLO.—Election, Dec. 18th: J. W. Smith, M.; C. Gosling, O.; Mrs. M. Stafford, Sec'y; A. M. Jackson, T.; J. C. Owen, L.; L. H. Sweitzer, S.; A. Weston, A. S.; Miss Nellie Gillespy, L. A. S.; Mrs. L. H. Sweitzer, Pomona; Miss May Stafford, Ceres; Mrs. A. M. Jackson, Flora; P. Laflech, G. K.

CACHE CREEK GRANGE, No. 82, CACHE CREEK, YOLO COUNTY.—Election, December 4th: S. B. Holton, M.; Godfrey Rudolph, O.; S. J. Tutt, L.; J. C. Tadlock, S; H. C. Thompson, A. S.; G. M. Dameron, C.; D. Q. Adams, T.; E. R. Holton, Sec'y; E. R. Howard, G. K.; Miss Ellen Holton, Ceres; Miss Anna Rudolph, Pomona; Mrs. Laura Dole, Flora; Mrs. M. Keller, L. A. S.

CAHTO GRANGE, No. 202, CAHTO, CAL.—Election, Dec. 18th: J. J. Thomas, M.; O. R. Bennett, O.; Jas. H. Braden, L.; G. N. Grubbs, S.; William Burns, A. S.; J. G. Burns, C.; J. G. Wilson, T.; J. H. Clarke, Sec'y; D. E. Wilson, G. K.; Mrs. Paulina Wilson, Ceres; Mrs. M. Burns, Pomona; Mrs. Mary Burns, Flora; Miss A. Wilson, L. A. S.

CARPINTERIA GRANGE, No. 51, CARPINTERIA, SANTA BARBARA Co., CAL.—Election, Dec. 17th: O. N. Cadwell, M.; D. M. Whitford, O. (re-elected); S. H. Olmstead, L.; John Pettenger, S.; Henry Fish, A. S.; Mrs. S. A. Olmstead, C.; A. Martin, T. (re-elected); Marcius Whitford, Sec'y.; R. H. Nurse, G. K. (re-elected); Mrs. J. Pettenger, Ceres; Miss Mina Whitford, Pomona; Mrs. Barnard, Flora; Mrs. Carrie Paice, L. A. S.

CERES GRANGE, No. 64, CERES, STANISLAUS COUNTY.—Election, Dec. 25th: H. W. Bronse, M. (re-elected); John Service, O. (re-elected); M. B. Kitterell, L.; E. Hatch, S. (re-elected); J. M. Henderson, A. S.; S. A. Hawkins, C.; Geo. Reich, T; R. K. Whitmore, Sec'y; W. B. Harp, G. K.; Mrs. R. Whitemore, Ceres, (re-elected); Mrs. P. H. Schafer, Pomona; Mrs. Julia Service, Flora; Mrs. E. Hatch, L. A. S.

GEYSERVILLE GRANGE, No. 67, GEYSERVILLE, CAL.—Election, December 18th: Alex. Stites, M.; C. M. Bosworth, O.; John Patrick, L.; E. Hamilton, T.; G. Jacobs, S.; G. W. Benjamin, A. S.; W. S. Beeson, C.; W. H. Adamson, Sec'y; C. P. Moore, G. K.; Mrs. M. Stites, Ceres; Mrs. E. Moore, Pomona; Miss L. Wolcott, Flora; Mrs. C. Beeson, L. A. S.

GALT GRANGE, No. 180, GALT, SACRAMENTO COUNTY.—Election, December 4th: A. B. Bryant, M.; S. Carr, O; G. W. Gray, L.; S. E. Wriaton, S.; O. V. Harvey, A. S.; L. H. Frank, C.; E. Ray, T.; J. L. Fifield, Sec'y; Wm. Brewster, G. K.; Miss J. L. Fifield, Ceres; Mrs. A. B. Bryant, Pomona; Mrs. J. B. Gates, Flora; Miss Alice Brewster, L. A. S.

HEALDSBURG GRANGE, No. 18, HEALDSBURG, SONOMA COUNTY.—Eleotion, Dec. 4th: B. B. Capell, M. (re-elected); Charles Alexander, O.; E. H. Kraft, L.; Geo. Allison, S.; F. M. Laymance, A. S.; W. T. Allen, C.; A. Hassett, T. (re-elected); W. N. Gladden, Sec'y, (re-elected); J. B. Farley, G. K.; Mrs. Lizzie Hassett, Ceres; Miss Lizzie Allen, Pomona; Miss M. A. McClish, Flora; Miss Lizzie Gordon, L. A. S.

HOLLISTER GRANGE, No. 11, HOLLISTER, SAN BENITO COUNTY.—Mark Pomeroy, M.; Edward Nason, O.; Mrs. C. W. Pomeroy, L.; S. W. Stockton, S.; Jacob Parmer, A. S.; A. Martin, C.; Miss Mary A. Flint, T.; J. D. Fowler, Sec'y.; J. B. Swan, G. K.; Mrs. Celia Butts, Ceres; Mrs. N. G. Stockton, Pomona; Mrs. R. S. Harrison, Flora; Mrs. P. H. Haver, L. A. S.; Uriah Wood, Trustee.

JACKSON VALLEY GRANGE, No. 234, IONE VALLEY.—Elcotion, December 18th: W. H. Pronty, M.; Jas. Richey, O.; Chas. S. Black, L.; Jas. Violet, C.; John Ringer, S.; J. P. Martin, A. S.; C. C. Pronty, T.; J. C. Hamrick, Sec'y.; A. J. Hamrick, G. K.; Mrs. C. S. Black, Ceres; Mrs. W. H. Prouty, Pomona; Mrs. C. C. Prouty, Flora; Mrs. A. K. Crawford, L. A. S.

La Honda Grange, No. 222, La Honda.—Election, Dec. 4th. Maurice Woodhams, M.; J. L. Edwards, O.; Miss Sadie Sears, L.; C. B. Sears, S.; Henry Wilhnr, A. S.; Miss Emma John, C.; James Menotti, T.; Mrs. J E. Woodhams, Sec'y; O. J. John, G. K.; Mrs. C. B. Sears, Ceres; Mrs. M. Ray, Pomona; Mrs. Ella Merrell, Flora; Mrs. Henry Wilbur, L. A. S.; J. L. Edwards, Trnstee.

Manchester Grange, No. 150, Point Arena, Cal.—Election, Dec. 18th: William H. Cureton, M.; C. B. Pease, O.; John Lane, Sec'y; W. Antrim, L.; William Munro, S ; Clark Huntley, A. S.; D F. Cain, T.; William R. Lane, C.; H. V. Holtz, G. K.; Mrs. C. B. Pease, Ceres; Mrs. P. Hnntlev, L. A. S.; Mrs. Bettie Cain, Flora; Mrs. A. Haggreen, Pomona; Miss Ella Cain, organist.

Mt. Whitney Grange, No. 231, Porterville, Tulare County.—Election, December 18th: A. F. Thompson, M.; O. H. P. Duncan, O ; O. W. Catlin, L.; H. S. Witt, S.; T. J. Snyder, A. S.; J. W. Moore, C.; G. W. Duncan, Sec'y; Mrs. M. Duncan, T.; J. R. Graham, G. K.; Mrs. E. Vincent, Ceres; Mrs. A. M. Hotchkiss, Pomona; Mrs. N. Crabtree, Flora; Mrs. A. Catlin, L. A. S.

Napa Grange, No. 2, Napa City.—D. Gridley, M.; S. Eaton, O.; J. T. Ward, L.; H. Kneif, S.; C. Dell, A. S.; E. W. Robbinson, C.; Jos. Henry, T.; H. W. Haskell, Sec'y, (re-elected); J. Kneif, G. K.; Ida Goodrich, Ceres; Mary Eaton, Pomona; Rosa Saul, Flora; Miss Martha Amos, L. A. S.

Paradise Grange No. 5, Paradise Valley, Nevada.—Election. Decemher 4th: Joel Bradshaw, M.; C. W. Winkey, O.; J. B. Case, L.; W. A. Sperry, S.; R. Burge, T.; W. H. Holt, A. S.; J. P. Mullinix, Seo'y; James Byrnes, G. K.; Mrs. E. Sperry, C.; Mrs. H. M. Burge, Ceres; Mrs. Mary Byrnes, Pomona; Mrs. E. Mullinix, Flora; Miss L. E. H. Ward, L. A. S.; S. B. P. Pierce, Trustee.

Pesoadero Grange, No. 32. Pescadero, San Mateo County.—J. C. Steel, M.; J. H. Osgood, O.; E. C. Burch. L.; Alex. Moore, S.; J. C. Fritch, A. S.; N. Corey, C.; A. Helms, G. K.; J. Goulson, T.; E. Leighton, Sec'y; Mrs. J. T Reed, Ceres: Mrs. B. V. Weeks, Pomona; Mrs. E. Burch, Flora; Mrs. M. J. Leighton, L. A. S.

San Luis Obispo Grange, No. 28, San Luis Obispo. — Election, Decemher 20th: George Steele, M.; L. M. Warden, O.; R. Davis, L.; John Dunbar, S.; J. C. Cloud, A. S.; R. E. Jack, C.; O. F. Thornton, T.; A. T. Mason, Sec'y.; Jas. Lee, G. K.; Miss M. E. Barnett, Ceres; Mrs. Bell Bither. Pomona; Mrs. M. Burrett, Flora; Miss H. Calaway, L. A. S.

St. Helena Grange, No. 30.—Election, Deo. 3d: John Lowelling, M.; J. W. Sayward, O.; G. B. Crane, L.; J. C. Wienberger, S.; Erank W. Hewes, A. S.; D. Edwards, C.; Charles A. Storey, Sec'y; William Peterson, T.; Harvy J. Lewelling, G. K.; Mrs. J. F. Crane, Ceres; Mrs. H. E. Wienberger, Pomona; Miss Bell Simmons, Flora; Miss Aurelia Decker, L. A. S.

Suisun Valley Grange, No. 9, Suisun, Solano Co.—Election, December 4th: R. C. Haile, M.; James L. Miles, O.; Mrs. R. B. Cannon, L.; Henry Martin, S.; Chas. Turner, A. S.; Joseph Cunningham, C. (re-elected); Frank McMullin, Seo'y; J. B. Lemon, T. (re-elected); L. B. Ahernathie, G. K.; Miss Annie Morris, Ceres; Miss Amelia Barhour, Pomona; Miss Ella Kittridge, Flora; Mrs. Nannie Berry, L. A. S.; Wm. H. Turner, Trustee; J. B. Lemon, Agent, (re-elected); Miss Annie Morris, Organist.

Table Bluff Grange, No. 101, Table Bluff, Cal.—B. W. C. Pollard, M.; H. Foss, O.; L. Y. Clyde, L.; E. B. Long, S.; J. H. Still, A. S.; W. R. Worthington, C.; Jackson Sawyer, T.; M. Ferrier, Sec'y; E. Clark, G. K.; Mrs. S. J. Perrott, Ceres; Mrs. T. Y. Clyde, Pomona; Miss Emma Knight, Flora; Mrs. M. Knight, L. A. S.

Ukiah Grange, No. 114, Ukiah City, Mendocino Co.—Election, Dec. 25th: A. O. Carpenter, M.; Geo. McCowen, O.; Mrs. M. E. McCowen, L.; D. P. Cowsert, S.; T. R. Lucas, A. S.; E. Weller, C.; S. Orr, T.; W. D. White, Sec'y; G. W. Jackson, G. K.; Mrs. H. M. Carpenter, Ceres; Mrs. L. White, Pomona; Flora Purdy, Flora; Mrs. C. S. Wayonseller, L. A. S.

Washington Grange, No. 228, San Joaquin County; P. O. Camanche, Calaveras Co.—Election, Deo. 18th:—A. A. Vansandt, M.; Jas. D. Cook, O.; Mrs. A. E. Blyther, L.; W. W. Cook, S.; H. B. Stamper, A. S.; W. B. Stamper, C.; C. H. Little, T.; C. Bamert, Sec'y; W. Holman, G. K.; Miss T. Cook, Ceres ; Mrs. E. Dill, Pomona; Miss L. Bacon, Flora; Miss L. Little, L. A. S.; A. W. Soltars, Trustee.

Good Words for the Rural.

Messrs. Editors:—I send you the names of the officers elected by Table Bluff Grange, No. 101. I am satisfied that all wish their subscriptions to your valuable paper continned. As for myself, I would be completely lost without it, and will atteud to renewing and getting new snbscribers as soon as possible. The weather has been beautiful for the last two weeks, and the farmers in this neighborhood have made nse of it in the way of doing their first ptowing on the bottom lands, and sowing on the hill lands. The pastures are looking fine.

B. W. C. Pollard.

In Memoriam.

Clara Westlake, Secretary of Salinas Grange, Salinas City, informs us that the following resolutions were adopted at a meeting held October 30th:

Whereas, It has pleased our Divine Master to remove from our midst our worthy sister, Mrs. Donna M. Chamberlain, therefore it is

Resolved, That in the death of Sister Chamberlain Salinas Grange has lost an esteemed and worthy member, her husband a devoted wife, her family a beloved daughter and sister, and the community a kind-hearted, amiable woman.

Resolved, That we extend our heartfelt sympathy to the family and friends of our deceased sister.

Resolved, That a copy of these resolntions be spread upon the minutes of this Grange, a copy sent to her relatives and to the Rural Press for publication.

J. R. Hebbron, Wm. Ramsay, Wm. Robson, } Com.

Agricultural Notes.

California.

ALAMEDA.

The Outlook.—*Independent*, Dec. 25: We have had most beautiful weather this week up to the time of writing this. The farmers are busy on all sides tnrning up the furrows with their plows. We just now looked out of the window and saw ten gang plows at work in the same field. The little rain that fell last Sunday morning only served to moisten the ground and make it more pliable to the tools of the agriculturist. Thousands of acres not ordinarily cultivated will be put to use this year. The heart of the farmer is full of rejoicing at the prospects of a most bounteous harvost now opened to his charmed eye.

BUTTE.

Crops.—*Record*, Dec. 25: The farmers have had the best kind of a time for planting, and are and have been profiting by it. The grass and grain are growing finely, and if there is any fear it is that the grain is growing too fast. The early mornings are quite cold, hut the days are not unpleasantly so, and the season has heen an excellent one thus far, so far as agricultural interests are concerned, and the general prospect is much better than for several years past.

KERN.

Alfalfa.—*Courier*, Dec 25: There will be a large area of land put in alfalfa this season in this section—we have heard it estimated as high as 10,000 acres. One party alone, Mr. Souther, has received enough seed for planting upwards of a thousand acres, and Mr. Thornton of the Carr & Haggin ranch, enough to sow six or seven hundred acres. On every part of the island gang plows are husily turning up the soil, preparatory to sowing alfalfa.

LAKE.

A Big Lot of Bacon.—*Democrat*, Dec. 18: Mr. Stonebreaker last Sunday finished killing 445 hogs, which, when dressed, averaged 225 pounds apiece. So that he now has on tables in salt 890 sides of baoon, and the same number of hams and shoulders. A firm in Cloverdale has offered him fourteen cents per pound tor the lard, of which he has rendered down 4,000 pounds.

Sick Goats.—Last week, Mr. E. C. Riggs, of Soott's valley, informs us that all his goats were taken sick from an overdose of huckeye hark and buckeyes. They soon recovered, however, under Mr. Riggs' treatment, and no mortality eusued.

[Will Mr. Riggs tell us what his treatment oonsisted in.—Eds. Press.]

LOS ANGELES.

Pomegranates.—*Herald*, Deo. 25: Tho pomegranate is one of the most profitable truits grown in this valley. The trees bear fruit in three years from the cuttings, and will grow on the most ordinary soil without irrigation. The pomegranate is a delicious fruit and possesses medicinal quatities of great value. It will bear shipment better than any other fruit. It may be barreled up and sent round the glohe in good order. The retail prioe of pomegranates on the street is ten cents a piece, and General Stoneman informs us that he has a standing offer from a San Francisoo firm to take all the pomegranates he can produce at five cents a piece.

MENDOCINO.

The Outlook.—*Democrat*, Dec. 18: The farmers have had the best kind of a time for plowing, and are and have heen profiting hy it. The grass has been growing finely, bnt is receiving a little cheok now because of the recent cold and frosty nights. The early mornings are quite cold, the middle of the day warm. Take it all in all the season thus far, so far as agricultural interests are concerned, has not heen surpassed in this section of country for years.

NAPA.

Tobacco.—*Register*, Dec. 18: Capt. S. D. Goodrich this morning showed us a sample of the third cutting of tobacco grown on his place this season. The stalk was about two feet high and covered with large leaves. This is pretty good considering the time of planting, which was last July. Capt. Goodrich intends in another year to plant five acres in tohacoo.

Chiles Valley.—The ranoh in Chiles valley has thriven and populated till from one family it has grown to twenty, and all along its nine miles of extent neat dwellings and well tilled fields greet the eye of the traveler. The mill has been carefnlly improved, and is now in excellent condition and its flour of the best in the country. It is run by hoth steam and water, having a locomotive engine for dry weather, and Col. Chiles believing that water power makes hetter flour, has heen at the expense of putting in, at a cost of eleven hundred dollars, a wheel of the most improved modern pattern, and thought to be one of the best on the coast. It uses up most of the wheat of Chiles and Pope valleys, and several hundred tons of cereal are now stored in adjacent warehouses to keep up the steady grinding that goes on all the year ronnd.

NEVADA.

Alfalfa Killed.—*Transcript*, Dec. 20: Ned Burroughs is at present engaged in digging up the alfalfa with which the court house yard is seeded. Some of the roots are an inch in diameter and they are as hard and fine grained as most kinds of wood. There was a good crop until last year, when a parasite peculiar to the plant appeared and killed the top most effectually. If other fields are similarly affected there will be no use in planting that kind of grass seed, for it will prove a failure every time.

Sierra Valley.—*Republican*, Dec. 22: Mr. David Russell favored us with a brief call yesterday. He says the abundant rains have placed the ground in excellent condition for plowing, and that farmers are jubilant over the prospect of abundant crops.

PLACER.

Oranges.—*Herald*, Dec. 25: In this section of country are quite a numher of bearing orange trees, on which the fruit is just now getting ripe. In Auburn, Mr. Andrews has a tree which is well loaded; in Ophir there are a number of trees, owned hy different ones, that are hearing well, also at Newcastle are there several trees well laden with the lnscious golden fruit. But perhaps the finest orange tree in the county is owned by H. Barkhaus, whose place is on Dutch ravine, between Newcastle and Gold Hill. He has several bearing orange trees besides a large number of younger ones, hut that of which we speak in particular is now eighteen years old, and bears this year fully 500 oranges, equal in size and superior in quality to the best imported fruit.

SAN BERNARDINO.

Farmers Busy.—*Argus*, Dec. 17: We had a call yesterday from Dr. St. Clair, of San Jacinto. He informs us that the farmers in San Jacinto are all busy putting in grain, aud the grass is growing finely. Messrs. Frink, Hamner and Horton are putting in a heavy crop of grain.

SANTA CLARA.

Thoroughbreds.—*Mercury*, Deo. 23: Mr. A. C. Wright has just arrived in San Jose with 10 head of thoroughhred horses, 7 of whioh are mares; also a dozen head of Jersey cows. All of these animals are thoroughbreds, the pedigrees whereof are duly recorded. If they are permitted to remain in this valley thoy will be a valuable accession to our array of fine stock.

SAN BENITO.

Society.—*Enterprise*, Dec. 25: The San Benito agricultural society, formed for the promotion and encouragement of stock raising, agriculture, horticulture, etc., filed this week in the office of the Secretary of State articles of incorporation. Capital, $25,000, in shares of $100 each. The principal place of business will be in Hollister. The directors are R. M. Shackelford, Sam. Dunoan, Wm. Eastman and O. D. Peck.

Wool Clip. — A copious and refreshing shower on Saturday night last, remoistened the soil aud gave new vigor to vegetation. Pasturage is good for both cattle and sheep, giving us the promise of a good wool clip in 1876, greater than ever before—it is even estimated as high as 60,000,000 pounds.

SAN DIEGO.

Wool Growers' Association.—The wool growers of San Diego county met last Friday in San Diego, appointed a Committee on Constitution and By-Laws, and adjonrned to January 10th. It was stated that there are 337,000 sheep in this county at the present time.

SANTA BARBARA.

A Santa Barbara Scene.—*Press*, Dec. 18: I have brought my writing table out, this Decemher morning, on the verandah. The thermometer hanging by the door marks 69° in the shade. Italian skies were uever more clear. Italian airs were never more soft. At one end of the verandah climbs a Baltimore helle, which grew 23 feet in as many weeks. At the other end a La Marque of equal vigor is lifting its great clnsters of white buds and blossoms. Just beyond the old-fashioned nasturtium intertwines its crimson flowers with those of the Australian pea. Garden pinks nestle at the foot of a eucalyptus tree, four years old from the seed, twelve inches through at the base and forty feet high. The fence beyond is scarlet with the geraniums that have overgrown it. There the callas are lifting their stately cups of blossoms, and there are the lemon trees and the palm, the English walnut and the Japanese loquat, which mine own hands have raised. My young potato vines are a foot high, and the field across the way is carpeted with young barley six inches tall. The hills are emerald, and a flood of molten sunshine is pouring down from a cloudless sky.—*J. W. Hough.*

SAN JOAQUIN.

Prosperity in San Joaquin Valley.—*Independent*, Dec. 21: The present season has thus far heen one of the most auspicious for the agricultural interests ever experienced in California. The encouraging farming prospect is not confined to any particular locality or section of the State, hut it is of the most cheering character everywhere. From all parts of the great valley of the San Joaquin comes the tidings that the rains have thoroughly soaked the ground and that the young grass has grown with a rapidity rarely if ever before known, and that not only on the valley lands but throughout the vast extent of foothills, pasture is hecoming ahundant. The early sown grain is in the most promising condition, and land not yet wholly tilled could not he in a hetter state for the plow. All depends, however, npon later months, and should the promise then be even half as good as at present, the California harvest of 1876 will far surpass anything in our past farming history.

SOLANO.

The Coldest of the Season.—*Chronicle:* This morning was the coldest of the season; the thermometer marking forty degrees.

Mushrooms.—E. R. Thurber has heen shipping mushrooms from his place to San Francisco by Roney's express in large quantities. Some mornings as much as 300 pounds are shipped, and every day at least a hundred pounds.

SONOMA.

Strawberries.—*Flag*, Dec 17: Last Saturday, J. R. Williamson brought to the office some ripe strawberries, raised in the open air in his garden—in the berry line hard to beat. One of them was five and one-fourth inches around one way and four inches the other.

Tomatoes.—Mr. Corbaley's tomato vines are producing a winter crop, presenting at this time all stages from blossoms to the ripe frnit.

New Potatoes.—*Argus*, Dec. 19: We were shown on Wednesday some potato vines and young potatoes of the Goodrich and Early Rose varieties that have grown since the first rains this season, and were as healthy and vigorous in appearance as any that could be fonnd in July and August last. The vines were over fifteen inches in length, and some of the potatoes nearly an inch in diameter. Mr. Burns, of East Napa, has an acre and a half of volunteer potatoes growing, the tops of which are eighteen inches high. The chances are that he will get a orop of potatoes in mid-winter.

Large Potatoes.—*Democrat*, Dec. 25: Mr. W. B. Griggs has just bronght into our office five potatoes of the common Red Bodega variety, weighing sixteen pounds. All these were raised in one hill, and besides these five there were others in the same hill, all good eating potatoes, from the size of a hen's egg up to the size of the five brought us, aggregating thirty-one pounds. Just think of it; thirty-one pounds of good eating potatoes raised in one hill, and five weighing sixteen pounds.

New Road.—Articles of incorporation of the Middletown and Geyser toll road have heen filed in the office of the Secretary of State. The object of the incorporation is to construct and maintain a wagon road from Anderson springs, Lake county, to the Little Geysers, Sonoma county, a distance of 5¼ miles. Capital stock, $1,500. Directors, Alex. Anderson, Seth Dunham, L. S. Patriquin, T. H. Soper, E. J. Cassidy. This road will cross the summit of Cobb mountain, from whence one of the grandest views in Northern California can be obtained.

Blackberries.—Mr. W. C. Andrews brought into our office on Monday a large bunch of Lawtou blackberries, gathered on his ranch in Blucher valley, Sonoma county, this morning. On this bunch are blooms, and green and ripe herries. Mr. Andrews informs us that he could have gathered a dozen hnnches like the one brought us. He also informs us that on his patch of blackberries, which is a fraction less thau one-eighth of au acre, he gathered year before last 1,400 pounds.

A Favorable Outlook.—We learn from our country friends that work on farms is being pushed forward rapidly. The ground generally has been in good condition for the plow, and during the past two weeks everybody has heen active in preparing it for the grain. We have heard that in a few localities, where the soil was adohe, owing to daily moisture from the fogs aud the want of any sunshine for two weeks to dry the surface, the work has heen somewhat heavy, but as a general rule the earth has been sufficiently dry to work splendidly. Up to this date the indications for a full harvest next summer are very favorable.

STANISLAUS.

Grain.—*News*, Dec. 25: Tho acreage sown to grain will not vary materially from last year. The plowing is improving somewhat, the soil heing broke deeper than usual. More sulkey and less number of gang plows in use. The "Proper" seed wheat is gaining in use, still the heavy bulk remains as mixed Chile and Australian. The early and unusually heavy rains have somewhat retarded farming operations in that division of onr county north of the Stanislaus. In that locality the soil is heavy and cannot he handled when wet, and as winter plowing is practiced quite extensively, the area sown, for that reason, is less than usual. In the adobe lands of the upper Dry creek the farmers rely mostly on summer fallowing, consequently their crops are, as a general thing, already well advanced. In the central or sandy sections, as well as west of the Joaquin, plowing and seeding has not been retarded to any great extent.

(Continued on Page 12.)

The Reapers.

The reapers bend their dusty backs;
The sounding sickles sway;
At every stroke the golden sea
Recedes to give them way;
The heavy ears fall bowing down,
And nestle at their feet.
Such will, such work as theirs perforce,
Must win—must homage meet.

So careless of fatigue they go,
So true, so steadily,
The admiring traveler on the road
Leans o'er the gate to see:
With marvel of the soon-fallen breadth,
The lounging gossips tell;
But the reapers labor for us all;
'Tis need they should work well.

Ere the great sun that burns above
Shall crimson in the West,
And the children's poppy nosegays fade,
And they lie down to rest,
Each golden spear that upward points
Shall fall upon the field,
And the farmer drain a sparkling glass,
Rejoicing o'er the yield.

Ply, bonny men, your sickles bright,
And give the people bread!
At every conquering stride you take,
On want and woe you tread.
Drop, heavy ears, and give the strength
You gathered from this plain,
That man may rise refreshed and firm,
And do great things again.

God bless the hands, all hard and brown,
That guide the cleaving plow;
That cast abroad the shining seed,
And build the wealthy mow;
They rear the bread our children eat;
'Tis by their toil we live;
Hurrah! give them the loudest cheer
That grateful hearts can give!

Deacon Gorum's Temptation.

[Written for the PRESS by JEANNE C. CARR—Concluded.]

While Deacon Gorum was undergoing the ordeal of the probate office, Achsy Hemingway had been confiding her fears of further changes to the Widow Higgins.

"You see a widower's a widower, no matter how he's darned and mended," she said.

"Don't be down-hearted, Achsy," returned the Widow, "I know a person who would be glad to have you for a housekeeper, or to make a real pardner of you."

"No," said Achsy, rocking nervously in her chair and shaking her head—"I never shall be any man's pardner; I gave my promise once, expectin' to have a home of my own sometime, but mother died and father was poorly; there was four little ones to bring up, an' no money to hire help with; somebody got tired waitin', and now they're all in heaven," and the old maid wiped away a few unbidden tears.

"Well," said the Widow, cheerily, "bein' a woman, Achsy, I can't marry ye, though I would in a minnit if I could, but I want you to be my pardner all the same, and to live here with me."

"Do you mean it?" said Achsy, "cos if you don't, it's cruel to speak so. I think I could earn enough to keep me out of the poor house if I ever worked for wages, but to feel as independent as you do, is more than I have reason to expect at my age."

"Then," said the Widow, laughing, "I take thee, Achsy Hemingway, for richer, for poorer, for better, for worse, and with the half of my savings and earnings do thee endow, but you must let me go to the West and stay a year with my son, and you must keep this place, sell the honey, butter and eggs, and take care of the heifer and the fruit trees. Besides," she added more seriously, "in case of accident to me I want to leave it in trust for my grandchild, and I mean that you shall be my trustee. Will you? You are a single woman and can legally transact business."

Achsy had ceased rocking, and was looking straight into the Widow's eyes, as she put the question.

"*Will* I?" Achsa repeated; then she rose up, took the Widow's face between her hands, kissed her without saying a word, and then put on her sun bonnet and went home. The compact was sealed.

As Deacon Gorum rode homeward, his anger at the parties who had ministered to his embarrassment had somewhat cooled, and the usual mixture of cunning and good judgment came to his aid in meeting the new condition of things. Although the testimony of the dead exonerated Achsy from any designs upon his substance, none the less did his habitual coldness towards her deepen into aversion. His wife's will imposed no legal obligation, but he dreaded publicity concerning it; he must manage somehow to escape blame. He might give Achsy a sum equal to the interest on one-third of his property and say nothing of the will. Would not a conference with the Widow Higgins about this open the way for him to speak of another subject yet nearer to his heart? He calculated that it would pay to exchange Achsy and a few hundreds, for the capable mistress of those coveted acres.

With Deacon Gorum, to resolve was to act. The evening of the day in which the Widow had taken her partner found him at the door intent upon his mission. His professions of interest in his sister-in-law's comfort, and the generous provisions he proposed to make took Mistress Higgins completely by surprise, and for the moment she was quite conscience stricken. Had she not for years held this brother in the church, this "neighbor" whom the gospel bade her love as herself, in secret aversion and contempt? Had she not in an unguarded moment once said at a quilting, that "Deacon Gorum's soul would rattle in a mustard seed?" Possibly some trace of these softened emotions stole into her face and emboldened the Deacon to ask her to ride out with him on the following afternoon. At any rate he asked, and she gave a hesitating consent, and now had seriously to consider the consequences which were involved in this act.

The truth was, the Deacon's visit came so soon after Miss Hemingway departed, that Widow Higgins had been confused by a feeling of guilt, as if she had been caught in a conspiracy against the Deacon's household peace, and while receiving his confidence she had not the courage to refuse him her company. She was no coquette, and she knew that a proposal of marriage was coming which she was honorably bound to consider favorably. She accused herself of weakness and meaness, for she never would marry the Deacon if he were the last man in the world, said her heart. Yet, *if* the Deacon was really such a good man as he now seemed, and was he not honored by the community who had chosen him as their representative? She might do a more foolish thing, said worldly wisdom. The Widow lost a good night's rest pondering over the use she would make of her opportunities.

The Deacon was promptly in attendance the next day, and poor Achsy, seeing him stop for his companion and drive away, both dressed in their best, was seized with a cruel suspicion. Was this the solution of Mistress Higgins' unexpected generosity to herself; was there a contrived plan to get her out of the way to make room for the new mistress?

It was late in the evening when the Deacon returned to his house, finding Achsy sitting with folded hands by the kitchen table, as much like a visitor as possible. Under ordinary circumstances she would have been knitting, and would have inquired if he had supped. He hung his hat on its accustomed peg and sat down, while the clock ticked an encouragement for them to break silence. The Deacon cleared his throat.

"Miss Hemingway," he said, rather stiffly, "I've been a thinkin' its my duty to change my situation." Achsy made no reply. "Yes," he continued, ignoring her silence, "a man in the prime of life had oughter have a companion—I allus calculated you'd have a home with your sister, but she's gone. She left you her clothes and the beddin' an' furniter she had when she was married, an' I've concluded to pay you well for your time, and for nussin my wife."

He stopped short, for an ashy look came over Achsy's face. He took out his leather pocket book and slowly counted ten fifty dollar notes and laid them on the table before her; and still the old maid never spoke a word. She took up the new crisp papers and laid them down side by side, putting the edges together as if she were matching her patchwork, then she lighted a fresh candle and turned away. As she passed into her own room, she looked back at the Deacon and said, "I worked for love for her and her's, I don't want your money." * * * * * * * * * * * *

"Beats all," said Deacon Gorum, to himself, "the natur o' women folks! Achsy 'll clear out, and the Widder mighty onsartin," and he put up the rejected riches in his wallet again.

The next few days were eventful ones. The widow managed to reinstate herself in Achsy's good graces, and the latter was transferred with her chests of linen, and other belongings, to the gambrel-roofed cottage. The widow left home in the Hartford stage, ostensibly to visit a relative, who was carrying on the dress making business in that city. Deacon Gorum went over to the cooper's again, and this time brought Rilly's sister Cynthia back with him, no amount of persuasion being able to induce Rilly to stay after Miss Achsy's departure.

It was June when the wife of Deacon Gorum was laid to rest in the churchyard, and now the October winds were blowing drifts of yellow leaves against her white headstone. Golden pumpkins lay piled against the door yard fences, the Indian summer haze was in the air. It was the hour of social cheer and neighborhood festivity, and one topic furnished material for animated discussion at quiltings and husking bees, viz., the approaching marriage of Deacon Gorum and Widow Higgins. The banns had been read once in the meeting house, and it was a little wonder why this was not followed by two succeeding proclamations, in accordance with the law. Some surmised that Deacon Gorum was going to the city for his bride, and would be married there on his way to the Assembly; even Mistress Wilkins was at a loss to explain matters, while Achsy and the Deacon were very close mouthed.

The first Sunday in November came, and the mystery seemed about to clear, for Mistress Higgins walked deliberately into her pew in church, so unlike her former self, that a change of situation seemed imminent, if it had not already taken place. Widow Higgins had been away for a month, and there she sat, hymn book in hand, and no Beacon Hill matron could have been more elegantly or becomingly attired. Her brown pelisse fitted to a nicety, the satin lining of her velvet bonnet gave a delicate color to the comely face, shaded by a thread lace veil. A handsome "boa" of fine dark fur was wound around her neck, and hung in a graceful loop below her waist. The partridges of the woods were not more becomingly clothed in their pretty browns than our Widow in hers. All eyes turned from her to Deacon Gorum's empty seat, and when at last he came, late, as was his wont, he took his accustomed place under a battery of curious eyes. He looked defiantly around until his glance fell upon the Widow, when he colored, but the keenest observer saw no other sign. The two came to meeting, worshipped (?) and went their ways, alone. Two or three days passed in suspense, and finally the minister concluded that it was his duty to call and make enquiries. First he dropped in at the Widow's; there was no one at home but Achsy Hemingway.

"Is Mrs. Higgins about?" he asked.

"She's about—well, I guess she's about as far as Buffalo, by this time," replied the old maid.

"*What?*" said the parson, "have they given me the slip?"

"I don't know what you mean by *they*," said Achsy. "Miss Higgins has gone to stay a year with Joel, and left me to take care of her place. She had some company from Harford that she was goin' to jine at Albany."

"Miss Hemingway," said the Parson, quite severely, "don't you know that Mrs. Higgins and Deacon Gorum were published in due form from my pulpit? Levity on these subjects is not becoming in professing Christians."

"Professin' Christians and practicin' Christians don't allus pull together," remarked Miss Achsy.

The minister was not more fortunate in investigating at Deacon Gorum's. No opening remark elicited confidence; the Deacon was in ill humor, and forbore to offer his usual hospitalities. Yet something was due to the minister and to the church. The broken match was solemnly discussed in the Friday meeting, and a committee of brethren, according to the Congregational discipline, formally waited on the recusant member, to talk and pray with him. "We are told to bear one another's burdens, Brother Gorum," remarked Deacon Wilkins.

"Did ye ever hear of the man who got a good livin' mindin' his own bizness," retorted Deacon Gorum, in a tone which discouraged the committee from their spiritual efforts. But the matter was not allowed to rest there. The curious student of Milford history will find a thick volume in which the records of the ecclesiastical council, consisting of ministers and laymen from adjoining parishes appointed to try Deacon Gorum's case, was duly recorded "For conduct unbecoming a Christian," was the wording of the general charge. One of the specifications named the day on which Deacon Gorum's intended marriage with Mistress Higgins had been published; another, that four weeks thereafter he had married, without the notices required by law, Cynthia Martin, spinster, and that he had defied and otherwise brought discredit upon the church. There is a curious affidavit among these papers from the Widow herself, taken in due legal form, in which she further deposes and says, she "harbors no ill will, and brings no accusation against the aforesaid brother, inasmuch as the said property, held in her own right, had been devised and entrusted to Achsy Hemingway for the benefit of Joab Higgins, Junior, a minor, without the said brother's knowledge, when the said brother made the promise of marriage aforesaid, which promise she fulfilled on her own part by appearing at the time and place specified."

It is said that the reading of this affidavit, received while the trial was progressing, was the turning point in the case. If the Widow declined to accuse, who would condemn! It was not the business of the council to say whether the Deacon's sudden marriage with Cynthia was one of pique or affection.

* * * * * * * * * * * * *

The Deacon was never the same man afterwards. Year by year he lost influence, and when "she that was Widow Higgins" came back from Ohio to spend money in fixing up the old place, when the kind lawyer who had defended her son took her to brood his motherless little ones, and by and by found his rightful place in Congress, making a summer home in the Milford meadows, it was hard for Deacon Gorum to recognize the gentlewoman who presided there as the cause of his temptation and trial. But she made him neighborly in spite of himself, and one day said, half jestingly, "You are a young man yet, Deacon Gorum, and have a young family coming on in the world; why not sell out to us, and go West?"

"It's a bargain," said the Deacon, "you can set your own price."

WHAT DID TWEED RUN AWAY FROM?—The conundrum at first seems a perplexing one. He was living very comfortably; and his lawyers seemed as industrious and as shifty as ever. But that was the very rub. Under their hands his vast possessions were absolutely melting away in the shape of enormous fees. He did not run away from the jailers at all. He ran away from the lawyers. They are entitled to the sincere sympathy of the public in their bereavement.

The Good Wife.

There is no combination of letters in the English language which excites more pleasing and interesting associations to the mind of man than the word "wife." There is magic in this little word. It presents in the mind's eye a cheerful companion, a disinterested adviser, a nurse in sickness, a comforter in misfortune, and an ever faithful, devoted, and affectionate friend. It conjures up the image of a lovely, tender, confiding woman, who cheerfully undertakes to contribute to our happiness—to partake with us the cup, whether of weal or woe, which destiny may offer. The sweet word "wife" is synonymous with the greatest earthly blessings; and well should be cherished in the "heart of hearts" that being whom the Infinite and Allwise Creator designed should smooth the rugged inequalities of life, plant the wayside with fairest flowers, double our joys, and divide our sorrows. Such is the good helpmeet.

A valued friend, when in the city a short time since, in referring to the hallowed and purifying associations of home, "the most precious of human possessions," alluded to the unbounded influence exerted by a good wife and mother upon those nearest her heart; and although her loved ones may journey to the utmost parts of the earth, yet will her gentle voice annihilate space, still will her counsels of truth and virtue haunt, as the sweetest music, memory's reverberating chambers, guarding against the wiles of the adversary, preserving in the heart high regard for all that is good, and keeping the feet in the way of rectitude. And how will the absent ones yearn for the sacred joys and privileges of "the dearest spot on earth!" How like a lode-star will home's devoted inmates attract the wanderer to its familiar shrine, where dwells his embodied reality of happiness. When the long absent one turns his weary footsteps toward the dear old homestead, it rises before him, transfigured into paradise, and as it dawns upon his sight, he will gratefully adopt the glowing language of Burns:

"At length his lonely cot appears in view,
Beneath the shelter of an aged tree;
Th' expectant wee things, toddlin, stacher through
To meet their dad, wi' flichterin noise an' glee.
His wee-bit-ingle, blinkin bonnily,
His clean hearth-stane, his thrifty wife's smile,
The lisping infant prattling on his knee,
Does a' his weary, carking cares beguile,
An' makes him quite forget his labor an' his toil."

Will the Farmers Support their Press?

This question has often been asked us by persons opposed to the "great farmers' movement." We have as often answered, we believe they will; for it should not only be their pleasure but their interest to do so. But he who strives to be a reformer and lead public opinion in any cause, however just, and aims to discharge his trust with strict and single reference to the responsibilities of his vocation, will often be sadly admonished by his dwindled receipts and accruing debts, that he has not chosen the path of profit, however much he may be consoled by knowing that it is that of right and honor.

The journals that have notoriously the largest and most profitable support are not those conducted in the interests of agriculture, but those in the interests of nearly every other business or profession.

It is the wise fostering of their own papers, that advocate and disseminate all the knowledge of their peculiar branches of business, that makes the merchants and business men of our cities and towns so wide awake and well informed. If the farmers ever expect to compete in the race of progress with the other professions, they must foster, support, read their own papers.

We have plenty of men to praise our paper, admire our pluck, and say our editors and publishers are worthy fellows, but this does not put bread in our mouths or clothes upon our backs. We may well say as in Juvenal:

"Modest worth is praised and starves:
While vice, with gardens, villas, costly boards,
Rare plate, and cups embossed, the world rewards."

—*Hoosier Patriot and Granger*

EXPERIMENT IN VIBRATION.—Place a glass tumbler, filled with water to about a half inch from the top, on a table, holding the glass to the table with the left hand, and, using a common fine-grained tobacco pipe for a bow (taking the bowl of the pipe between the finger and thumb), draw the stem briskly and evenly with only downward strokes on the edge of the glass, causing the water to vibrate. This continuous vibration elevates the water in the center of the glass into the shape of an inverted cone (like a convolvulus flower), diffusing it by centrifugal force for some distance round the glass, where it falls in a circular shower of dew and mist.—*Journal of Chemistry.*

A CONUNDRUM ANSWERED.—You inquire, "How can I prevent my little boy from wearing out the knees of his pants?" That problem has been in the market ever since Eve asked Adam the same thing about young Cain. We only know three sure ways: You can kill the boy, or you can make his pants without any knees; but perhaps the best way would be to get some other little boy about the same size to wear the knees out, if you have such objections to your own boy's doing it.

No other occupation is so pleasant as farming, and if rightly managed no other is so profitable.

Some One to Love.

Perhaps one of the most positive proofs we have of the soul's independence of the body is our great need of love and of something to love. Were we mere animals—creatures doomed to perish after a few years of life in this world—that which contents the brute would also content us. To eat and sleep well, to have an easy time of it, would be enough. As it is, we may have all these things, and health to enjoy them, and yet be utterly wretched. Neither can mental food satisfy us. "Some one to love" is our heart's cry.

When the atmosphere of tenderness is about us we rejoice; when people are harsh and unkind we suffer. We begin life wishing to love all people, and believing that they love us. Experience hardens us. Our dear ones grow fewer; but, as long as reason lasts, we must have some one—we must at least imagine that some one loves us. The parents, sisters and brothers—that dearest friend whom we promise to love and cherish until death parts us—these come into our lives and fill them up. Afterwards come the little children—frail, helpless babes, who need our care so much, and friends to whom we are not kin, yet who grow dear to us.

Some have many loved ones, and some but one. Heaven help those who have none, though they are generally to blame for their empty heartedness, for kindness wins love. They are always wretched, and they often show their craving for something to love by cherishing some dumb animal—a dog, a kitten, a parrot, perhaps, on which they lavish caresses, which, better spent, would have bound some human heart to theirs. Pride or morbid sensitiveness may have been at the bottom of their loneliness, and these pets of theirs fill the aching void a little.

Some one to love! It is the cry of the human soul, the note to which every human heart responds; the bond which will bind us all together in that other world where mourners shall be comforted and love shall reign forever. —*Ex.*

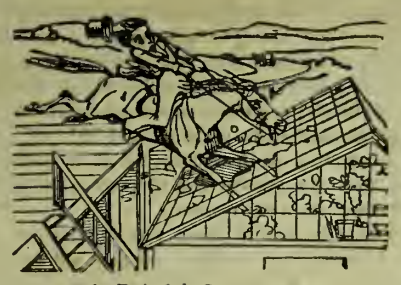
Right Living.—Christ did not come to teach truth primarily, but to communicate life. It was not his light which was to be the life of men, but his life which was to be the light of men. He came to give new faith, hope and love to the human heart, and so to enable it to see more of truth. By the influence of his presence, by the power of his example, by the contagion of his lofty soul, by the magnetism of his love, he awakened the souls of others. He did not give a course of lectures at Jerusalem on a new philosophy; nor did he publish a series of volumes of systematic theology; but "went about doing good." This is what creates life in men's souls, the contact with the life in the souls of others. Do we not know it by our experience? What has made us capable of love? What has made us believe in the possibility of generosity? Is it not that we have known generous souls, that we have come in contact with lives full of devotion? "Let your light so shine before men, that others seeing your good works, may glorify your Father which is in heaven," is what the blessed Master taught.

"We knows the public is down on us," remarked the old milkman, as he dipped out the desired quart from one of his big cans, "but the public is mistaken. In the fust place we put in a leetle water—only a bit, to make up for shrinkage. It goes to the big dealers, and they ain't a bit keerful when they gits to pouring in water. They sell it to the grocers, and they put in chalk with one hand and water with the other, and they are thinking of politics and get in too much. The servant gal goes after milk for the family, drinks a third of it, and she puts in water to make up the measure; and, you see, when the family gets it the taste ain't there, the look ain't there, and they goes for us poor old men who hasn't a dishonest hair in our heads. That's the way, mister—gee up there, Homer!"—*Detroit Free Press.*

Who is Most a Christian?—It is not what man denies or accepts that makes him a Christian. The man whose thought, temper, speech and action show him to be most like the Lord Jesus, is most a Christian. Christianity differs from all other religions precisely in this: that it makes essential, not the rites which a man observes, nor the creed which he believes, nor the mere outward morality which he practices, but what he is. Not to observe the sacraments, not to say, "Lord, Lord, Lord," in creeds, not to make a fair show of correct living, but to be a pure and devout soul, is the essential thing. The observance of sacraments and sabbaths, and the holding of right opinions, are of importance in proportion as they promote the development of character; and good morals are the offspring of a pure heart.—*Beecher.*

That cyclone which killed 1,550 cattle and horses on one Texas ranch, and over 1,000 on another, not to speak of smaller losses, may serve to impress a lesson that even stock-raising on the great plains is not beyond the possibility of serious pull-backs.

The effective length of a sermon is measured by the feelings of the audience, not by their watches. About all the good watches can do is found in their always giving a preacher the chance to see to it that they are not looked at.—*Congregationalist.*



A Painful Occurrence.

Young Folks' Column.

Before School.

"Quarter to nine! Boys and girls, do you hear?"
"One more buckwheat, then—be quick, mother dear!"
"Where is my luncheon-box?" "Under the shelf,
Just in the place you left it yourself!"
"I can't say my table!"—"Oh, find me my cap!"
"One kiss for mamma and sweet Sis in her lap."
"Be good, dear!"—"I'll try.—9 times 9's 81."
"Take your mittens!"—"All right!—Hurry up, Bill; let's run."
With a slam of the door, they are off, girls and boys,
And the mother draws breath in the lull of their noise.

After School.

"Don't wake up the baby! Come gently, my dear."
"O, mother! I've torn my new dress, just look here!
I'm sorry, I only was climbing the wall."
"O, mother! my map was the nicest of all!"
"And Nelly, in spelling, went up to the head!"
"O, say! can I go on the hill with my sled?"
"I've got such a toothache."—"The teacher's unfair."
"Is dinner most ready? I'm just like a bear."
Be patient, worn mother, they're growing up fast,
These nursery whirlwinds, not long do they last;
A still, lonely house would be far worse than noise;
Rejoice and be glad in your brave girls and boys!

A Short Talk With the Boys.

Dear Boys: Sometimes boys think they are more neglected than any other class of human beings, and have to put up with second rate things. I think there is some reason for your thinking so. I have seen families where the boys' chamber was not as well furnished as the girls' and where the boys were not as well dressed. Some one will tell me that girls do these things for themselves. That is true, but it is no proper excuse; for if large enough to do for themselves they can sew for their brothers too; and if they can fashion tasteful things for their own rooms, they can study the boys' tastes as well. To be sure the brothers will not care for the same chamber decorations that will suit their sisters, but they have their own notions of comforts and conveniences, and if any one can tell me one single reason why they should not be gratified by mother and sisters, they will tell me something I have never been able to think out.

Again, we see girls at home with company in the parlor while the brothers of about the same age will shy off to the kitchen, shed, or barn. One reason of this is in their dress; another is they are not enough used to the parlor.

You see, boys, I am not going to excuse the ladies of your home for their part in your discomfort and short-comings; but then, I took my pen to have a talk with you, so after the above hints let me ask you privately, if there is not some blame attaching to yourself? Do you habitually take off your hat when you go in-doors. Boys have come to my house of errands and been asked in; some remove their hats on entering and some stand or sit with them on; but what a difference that one little habit makes in their appearance. Again, are you careful to clean your feet before going in doors? And are you careful to speak gently and not loud and blustering in the house. Just these three things, boys, will make you agreeable, and the lack of them will make you disagreeable and awkward.—*Ex.*

Carlyle's Reverence for Bread.—Most of even our young readers have heard of the celebrated writer, Carlyle. We introduce his name here in connection with an anecdote which should convey an important lesson of economy, and thoughtfulness to every one who reads it. Mr. Carlyle could never bear to see anything eatable wasted, particularly bread, and it is related of him that as he one day approached a street crossing, he suddenly stopped, and stooping down, picked something out of the mud, at the risk of being run over by one of the many carriages in the street. With his bare hands he brushed the mud off and placed the substance on a clean spot on the curbstone. "That," said he, in a tone as sweet and in words as beautiful as I ever heard, "is only a crust of bread. Yet I was taught by my mother never to waste, and, above all, bread, more precious than gold, the substance that is the same to the body that the mind is to the soul. I am sure that the little sparrows, or a hungry dog, will get nourishment from that bit of bread."

Little Willie having hunted in all the corners for his shoes, at last appears to give them up, and climbing on a chair, betakes himself to a big book on a side table. Mother says to him: "What is darling doing with the book?" "It ith the dictionary; papa lookth in the dictionary for things, and I am looking in it to see if I can find my shoes."

Good Health.

The Effect of a Diseased Liver.

A healthy liver secretes each day about two and a half pounds of bile, which contains a great amount of waste material taken from the blood. When the liver becomes torpid or congested, it fails to eliminate this vast amount of noxious substance, which, therefore, remains to poison the blood and be conveyed to every part of the system. What must be the condition of the blood when it is receiving and retaining each day two and a half pounds of poison? Nature tries to work off this poison through other channels and organs—the kidneys, lungs, skin, etc., but these organs become overtaxed in performing this labor, in addition to their natural functions, and cannot long withstand the pressure, but become variously diseased.

The brain, which is the great electrical center of all vitality, is unduly stimulated by the unhealthy blood which passes to it from the heart, and it fails to perform its office healthfully. Hence the symptoms of bile poisoning, which are dullness, headache, incapacity to keep the mind on any subject, impairment of memory, dizzy, sleepy or nervous feelings, gloomy forebodings and irritability of temper. The blood itself being diseased, as it forms the sweat upon the surface of the skin, is so irritating and poisonous that it produces discolored brown spots, pimples, blotches and eruptions, sores, boils, carbuncles and scrofulous tumors. The stomach, bowels and other organs spoken of, cannot escape becoming affected, sooner or later, and costiveness, piles, dropsy, dyspepsia, diarrhœa, female weakness and many other forms of chronic disease are among the necessary results.

Tape Worms.

The origin of tape worms is the eating of measly pork, which has not been sufficiently cooked to destroy the germ. It may also be communicated to beef by the knife of the butcher, should he cut pork and beef with the same knife. The germ adheres to the interior of the human intestines, soon becomes the head of the tape worm, and then the links grow, each of which eats and digests independently of the head.

To remove it, a large dose of Rochelle salts is given at night; at ten o'clock in the morning a dose is given made of one-half ounce of bark of pomegranate root, one-half drachm pumpkin seed, one drachm ethereal extract of male fern, one-half drachm powdered ergot, two drachms powdered gum arabic, and two drops of croton oil. The pomegranate bark and pumpkin seed are to be thoroughly bruised and, with the ergot, boiled in eight ounces of water for fifteen minutes, then strained through a coarse cloth. The croton oil is first well rubbed up with the acacia and extract of male fern, and then formed into an emulsion with the decocion. In each case the tape worm will be expelled alive and entire within two hours.

The above prescription is from the *Druggist's Circular*, and is similar to the old established method; but a recent publiction informs us that where this has failed, the tape worm was effectively driven out by means of diluted carbolic acid, which is a poison for all small animals and inferior forms of life.

New Mode of Administering Raw Meat.—M. Laborde, in a French medical journal, recommends the following method for the preparation of raw meat: Make a not very thick broth of tapioca, and let it cool. The meat, finely scraped, is diluted with a quantity of cold soup, with which it is thoroughly mixed until it looks like tomato soup. The tapioca is then turned in, little by little, with constant stirring. A homogeneous liquid is thus obtained, in which, when properly made, the meat is so thoroughly disguised that the person eating it does not suspect its presence. The preparation has been often given under the name of "medicinal porridge of tapioca," and has proved very acceptable to the patients.

Useful Application of the Dog's Strong Digestion. — The daily papers announce the following item: "A Hartford man recently got a piece of tough meat lodged in the lower part of the esophagus, making breathing difficult and threatening inflammation, and was treated by Dr. Ellsworth of that city, who killed a number of dogs, and with the gastric juice of their stomach coatings, succeeded in dissolving the piece in the course of the day." As no animal has a stronger digestion for bones and tough meat than the dog, its gastric juice being very powerful, it was a happy idea of Dr. Ellsworth to employ this for the solution of the difficulty.

Dyspeptic Hunger.—If a man is hungry within an hour, more or less, after a regular meal, he is dyspeptic beyond question, and it shows that the stomach is not able to work what he has eaten, so as to get nourishment out of it; but to eat again, and thus impose more work, when it could do nothing for what had already been eaten, is an absurdity; and yet all dyspeptics who eat when they are hungry do this very thing, and thus aggravate and protract their sufferings.

Domestic Economy.

How to Carve and Help at Table.

It is considered an accomplishment for a person to know how to carve well at his or her own table. It is not proper to stand in carving. The carving knife should be sharp and thin.

To carve fowls (which should always be laid with the breast uppermost,) place the fork in the breast and take off the wings and the legs without turning the fowl; then cut ont the merry thought, cut slices from the breast, take out the collar bone, cut off the side pieces and then cut the carcass in two. Divide the joints in the leg of a turkey.

In carving a sirloin cut thin slices from the side next to you (it must be put on the dish with the tenderloin underneath), then turn it and cut from the tenderloin. Help the guests to both kinds.

In carving a leg of mutton or ham, begin by cutting across the middle to the bone. Cut a tongue across, and not lengthwise, and help from the middle.

Carve a forequarter of lamb by separating the shoulder from the ribs, and then divide the ribs.

To carve a loin of veal begin at the smaller end and separate the ribs. Help each one to a piece of kidney and its fat. Carve pork and mutton in the same way.

To carve a fillet of veal begin at the top, and help to the stuffing with each slice. In a breast of veal separate the breast and brisket, and then cut them up, asking which part is preferred.

In carving a pig it is customary to divide it and take off the head before it comes to the table, as to many persons the head is revolting. Cut off the limbs and divide the ribs.

In carving venison make a deep incision down to the bone to let out the juices, and turn the broad end toward you, cutting deep, in thin slices.

For a saddle of venison cut from the tail toward the other end, on each side, in thin slices. Warm plates are very necessary with venison and mutton, and in winter are desirable for all meats.—*National Agriculturist.*

To Make Dutch Cheese.—The domestic article made of sour milk, often known as "Dutch cheese" or "pot cheese," is prepared in the following way: "Set the vessel containing the sour milk on the stove over a kettle of water, and let it heat up slowly till the milk thickens and the whey is partly separated. As soon as the curd becomes firm enough to handle (before it becomes hard and the whey all separated) it is removed and suspended in a cloth or perforated tin long enough to drain off the whey and cool. If for domestic use, it is broken up, and about half as much sweet cream added as originally belonged to the milk, and salted and otherwise seasoned to taste with some aromatic, if desired, and either made into hand cakes or packed away in a vessel for use. If for market, the curd is drained and broken up, and salted and seasoned with a little pepper or caraway seed, and a little butter added, so that the particles of curd will adhere, and then molded by hand into four-ounce cakes or cheeses and placed at once upon the market, where a ready sale is usually found at remunerative prices. The original German practice was to place the hand cheese as above made between layers of straw, and let them lie till cured, so as to develop some of the Limburger flavor. But the general practice in America is to use them while fresh.

Breaded Tomatoes.—Cut off the tops of twelve ripe tomatoes, scoop out the seeds, set them in a pan with one gill of salad, and fill with the following preparation: One-half pint of mushrooms, one handful of parsley, four shallots, two ounces of fat bacon and two ounces of lean ham, all chopped fine and seasoned with a little thyme, pepper and salt; heat this mixture over the fire five minutes, take it off and stir in the yolks of four eggs; fill the tomatoes, cover them well with browned bread crumbs, cook in a hot oven fifteen minutes and serve with or without Italian sauce.

Dressed Mutton.—To have it as it should be, the dish must be lined with mashed potatoes, the mutton nicely minced and properly seasoned, placed in a dish, a little stock added, and then covered over with mashed potatoes roughed with a fork, and placed before the fire till the little dish assumes the appearance of a nicely baked hedgehog. The hotter served the better relished, provided it has only been allowed to simmer and not to boil.

"What shall I cook?" is a short but vexatious question, engrossing more serious thought, probably, than any other one question in the world. Many a good and industrious wife can be greatly relieved, and many a farmer's table bless his sight and appetite, by providing now for a good garden. If you love your wife and daughters do not put it off for money making enterprises on the farm.

Stewed Potatoes.—Take cold boiled potatoes, pare them and cut in thin slices; to a pint of milk, when scalding hot, stir in a tablespoonful of butter and flour, rubbed together; salt to taste; add the yolk of one egg and some parsley chopped fine. When well mixed, throw in the potatoes, shaking carefully without a spoon to avoid breaking. Let them stew for a few moments and serve.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week.*	1 *month.*	3 *months.*	1 *year*
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, January 1, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIAL S.—American Progress; Meat for England; Farmers, Support Your Paper; Duty on Sacking, Page 1. The New Year; Florida Oranges; Produce the Best, 8. What Trees Shall We Plant? Bayilaxera on Vines, Roots; The Castor-Bean Question; How to Prepare a Product, 9. Book Notices; Patents and Inventions, 12.

ILLUSTRATIONS.—American Progress, 1. Yellow Rareripe, 9.

CORRESPONDENCE.—The Alameda Avenue, Past and Present; A Rabbit-Tight Fence, 2.

SHEEP AND WOOL.—Combing Wool; The Wool Market; How to Kill Sheep, 2.

STOCK BREEDERS.—How to Know a Good Bull, 2.

THE SWINE YARD.—Curing Up and Curing, 3.

THE DAIRY.—A California Creamery, 3.

THE HORSE.—The Art of Breeding, 3.

PATRONS OF HUSBANDRY.—Christmas with the Elk Grove Grangers; Linn's Valley Grange; Christmas at Nord Grange; The New Officers; Election of Officers; Good Words for the RURAL; In Memoriam, 4-5.

HOME CIRCLE.—Deacon Gorum's Temptation; The Good Wife; Will the Farmers Support their Press; Some One to Love, 7.

YOUNG FOLKS' COLUMN.—Before School; A Short Talk With the Boys, 7.

GOOD HEALTH.—The Effect of a Diseased Liver; Tape Worms; Dyspeptic Hunger, 7.

DOMESTIC ECONOMY.—How to Carve and Help at Table; To Make Dutch Cheese; Breaded Tomatoes; Dressed Mutton; Stewed Potatoes, 7.

HORTICULTURE.—A Pest on the Almond Tree; Pine Apple Sprouts, 9.

USEFUL INFORMATION.—Will Human Saliva Kill Snakes; How Far Will Bees Go for Honey; Gold; Coloring Oak Wood; A Proposed Insect Commission; Bursting of a Tire, 10.

AGRICULTURAL NOTES from various counties in California and Washington Territory, 5-12.

MISCELLANEOUS.—Rainfall, 2. When to Cut Timber; Origin of the Water Cure; The Germination of Seeds in Ice, 3. A Practical Test, 10.

Stitched and Trimmed for the Good of Our Patrons.

Our readers will receive this first number of the PRESS for 1876 stitched and trimmed, ready for reading upon whichever page they choose first, without let or hindrance. This feature will be one of the improvements promised in our sheet for the New Year which we hope our readers will fully appreciate. It will be a real convenience to them at least fifty-two times during 1876. The present age calls for time saving expedients. This is one of them. It trims up the avenues to our advertising as well as reading pages, and thereby is an important benefit to our advertisers as well as subscribers. It nearly doubles the value of our advertising pages, but we shall not raise accordingly on our rates; neither shall we allow new advertisers to override our reading columns if we have ever so great a rush.

Large folding and pasting machines are expensive. In the principal Eastern cities, a dozen or more journals are often printed in a single job office. In such cases, one folding and pasting machine may do the work of all at a comparatively small cost to each, but on this coast we can have no such co-operative opportunities, and we have to accomplish the new work exhibited to our readers to-day single handed.

If this first week every copy is not finished as perfectly as desired, we will try and do the work better with each succeeding issue. Although somewhat expensive to the publishers, we believe the improvement will be well appreciated by our readers, whom we invite to assist us in extending the circulation of the PRESS.

The New Year.

The RURAL PRESS extends a New Year's greeting to its readers. It is a time for congratulation and rejoicing and thanksgiving. The year which is now opening is of peerless promise. Other years have been good, other years have been years of plenty, but the first of January, 1876, dawns amid indications that the year will be better than those which have gone before, and that where there has been plenty before there will be abundance.

To the agriculturist who pursues his industry beneath these skies the signs are of prosperity beyond that of other seasons. The early rains have been copious and wide reaching and we may trust to-day that the All Wise One, who promises seed time and harvest so long as the world shall endure, will vouchsafe a favorable growth and a bounteous harvest-home to crown the glory of His early gifts to this Centennial year.

It is in anticipation of such prosperity that we greet our readers to-day, and while we heartily wish for each and all of them a year full of happiness and joy, we would have none of them forget that even the promise of prosperity will grant its fullest realization only to those who fit themselves for the discharge of the duties which prosperity requires. Let us look for a moment at success and its duties.

The agriculturist who gains most from this year of promise will be he who deserves most. Success will crown the head of the most zealous, industrious and intelligent. Success to such a one will be an honest, honorable success; for true success is not otherwise. What is it then, to be zealous, industrious and intelligent?

To be a zealous agriculturist is to labor as one who believes his calling is worthy of his best endeavor. It fills his thoughts with a conscious pride in its nobility. He looks upon the blessed acres stretching out before him, and waiting for the influence of his mind and hand to shape their productive ability, with something of the noble glow of spirit with which the painter beholds the scene of beauty which he can fix upon the waiting canvass, or the sculptor discerns the angel in the patient, waiting marble. If a farmer cannot awaken zeal in his pursuit, if he cannot fill his soul with the consciousness that it is a thing worthy to enlist his highest powers of hand and thought, then he cannot possess that zeal which should go forward half way to welcome coming prosperity.

It is useless to tell farmers, as a class, that industry is the price of success in their business, for no school of the world's workers inculcates industry like the school of the farm. But let even the industrious take to themselves new industry for the labors of the opening year. Let no good thing which springs from the earth fail of a caring hand. Let moments of leisure be times of preparation. Let the tool house, that arsenal of the farm, hold no defective weapons. The busy time will try the soundest metal to serve its increased needs. If the industry of preparation be fitly exercised the industry of action will be half encompassed.

Intelligence is the third measure of success in agriculture. The agriculturist who fails to fortify his zeal and industry with the constant strengthening of increasing intelligence and understanding of his business, will miss one of the grandest lessons of success. There is no industry of men which is so far reaching in its demands upon intelligence as agriculture.

In the field, in the stock-yard, in the garden and in the orchard there are practical problems which reach even beyond any outpost of knowledge which the science of the day has established. In the market there are questions, new as the conditions under which they have arisen, which the intelligence of the farm must determine and solve to its advantage. In the laws of the land the good of the greatest number, that is of the industrial classes, must yet be given an enduring place. It is in a year of prosperity that the intelligence of the farm can work most effectually. The farmer who does not give this year of success opportunity to stimulate and extend his intelligence will be true neither to his calling nor himself.

And the RURAL PRESS, in urging upon the attention of its readers the duties of this promising year, is not unmindful of its own. It is our duty to be zealous, industrious and intelligent. It is our glory that our labors have won for us the proud title of "the leading agricultural journal on the coast." We feel a proud zeal in our work and the glorious utility of the ends for which we labor gilds the hard lines of our industry with the glow of enthusiasm. To increase the intelligence of the farm, we drink unceasingly at every fountain of true science and right practice, and it is with the satisfaction of those laboring in a good cause that we receive the frequent plaudit "well done" from our readers.

But we must remind those who approve our work that they owe us their constant aid and co-operation. We have reached a measure of success in furnishing the farmers of this coast a trustworthy journal, but let our friends remember that we have not the millions of the thickly settled regions of the East from which to draw support and patronage. Let them remember that to enable us to do our best work for them, they must secure for us the sinews of newspaper work in constantly increasing amount. As the coming year will fill the fields with plenty so let it extend the circle of our patrons. As the influence of a better success is stimulus toward better knowledge and better practice on the farm, thus it will be in the field of our enterprise. Our interests and yours, readers of the PRESS, are identical. Let us enter upon the promising months of 1876, with this assurance before us, confident that zealous, industrious and intelligent effort will win a HAPPY NEW YEAR for us all.

Florida Oranges.

There have been received in this city during the last week some oranges of unusual excellence. They are of the Bahia variety and were grown in Florida. The transplanting from Bahia to Florida was successfully accomplished and we are informed that the variety will be introduced into California. It is wise to take every possible measure to improve our fruit and we trust the enterprise will succeed. Of course, much will depend upon the cultivation which the new coming varieties receive. They have been improved in their habitat by careful culture and they can be brought to an even higher development here by the same means. Apropos of the introduction of Florida orange stock, we find an interesting item concerning the care of an orange grove in that State in the correspondence of *The South*. It is concerning "Hart's grove," and is as follows:

I doubt if any orange grove in the South is so highly cultivated, or more attractive to the visitor. The trees are neatly trimmed, and the trunks washed with whale oil soap, which gives them a beautiful polish. No fruit is allowed to grow on the inside of the branches, and the bearing qualities of the trees can also be regulated to some extent by the manipulations of the pruner, whose business it is to look carefully after the growth and fruitfulness of the grove, which covers about six acres. I noticed a wild orange tree stump in one part of the grove on which had been grafted lime, citron, sweet orange and Sicily lemon cuttings, all of which are now bearing fruit and doing well. Such trees as this are quite frequent in Florida, as a more ready and profitable growth is thereby secured for fruit that is far more valuable and marketable than wild oranges, the highest price of which is but a dollar a hundred when in demand. I also noticed a Tangarine orange tree, the fruit of which is called the "kid glove orange," as it can be eaten without breaking the inside skin of the sections and staining the gloves worn by the person eating it. Just beyond, on the next slope, is one of the oldest orange trees in the State, from which were gathered last year forty-five hundred oranges. This was a prolific yield, and an unusual one, as twenty-five hundred oranges from one tree is considered a very profitable crop. At three cents for each orange this would give the producer seventy-five dollars per year for his trouble and expense.

THE WINE GROWERS' PROPOSITION.—A Washington dispatch of Tuesday is as follows: Representative Luttrell yesterday submitted to the Commissioner of Internal Revenue the bill drafted by the California Wine Growers' Association for the relief of native brandy distillers, and invited his approval or suggestions concerning it. The Commissioner will examine the subject and probably advise some modification. In a recent interview with Page he said he saw no chance for relief under the present law, but was disposed to recommend some system of bonded warehouses in the manufacturing districts which would remedy the chief evil experienced. Sargent is also urging attention to this matter.

WINDMILLS.—In our advertising columns it will be noticed that the names of a number of residents of Watsonville are appended to a full recommendation of the Eclipse windmill, sold by Charles P. Hoag, 118 Beale street, S. F. Such testimony will prove of value to all those needing water-drawing apparatus.

Produce the Best.

A city contemporary notes the large shipment of California Bartlett pears last season to the Eastern markets. It is fitly remarked that only the best fruit can reap the reward of this profitable trade. The large and fine quality fruit was sought out by the buyers from the East and fine prices were gained by the producers. There are wholesome lessons in this feature of trade. The market reports always show a wide margin between "choice" and "common" in the quotations. Any farmer who has sent his produce to the market and had returns sent back to him at the prices for "common," can easily figure the profit it would give him to make his products all "choice." This is the legitimate field which is open to every producer. It is a field which embraces nearly all the branches of agricultural production. It is the field in which intelligence and enterprise do their best work.

In the growing of fruit there is as wide opportunity for brain work as in any division of scientific and learned research. The beauty of it to the farmers is that it is so practical. It is not theory which tells the fruit-grower to lop off the branches of his unprofitable trees and insert the grafts of varieties of fruit which win the most golden opinions in the market. It is not theory which calls upon him to uproot poor trees and fill their places with the choicest varieties which win the patronage of consumers. This is the best practice. It is enterprising effort leading to actual and tangible success.

This is the method which should prevail in all departments of farm production. It should lead to a most careful and intelligent choice of seed of various kinds, whether for field or garden crops. No farmer, except in very rare instances, should sow a seed merely because he has it on hand. It is better economy in the end to seek new seed which will yield a finer or fuller harvest. By such action the ground will be able to do its most profitable work and the labor expended will yield a higher percentage of reward.

The same spirit of enterprise and improvement will lead to better returns in all the animals which are bred upon the farm. No wise farmer will be content with "scrub" stock, when he can double their productive worth by the infusion of new blood by securing animals which a long course of intelligent breeding has developed into forms and traits of the highest value and usefulness. He will not be content to keep a dairy of cows which do no profitable service at the pail. He will not grow stock for beef upon whom the rich pastures have no more effect than the corn upon the "lean kine" of Pharaoh. He will not keep poultry which do not enable him to have a share in the golden harvest which eggs and birds are now reaping in our markets. He will not grow hogs which are formed upon the fish model, but will gain those breeds which assume profitable roundness with each day's feeding.

No farmer in this age of agriculture can afford to overlook the advantages which he can secure by always producing the best. As he reviews his season's work he should be critical. He should measure each success, not by what he has gained, but by that which remains to be gained. This is the spirit which should prevail in all the farmer's operations. This is the spirit which it shall be our aim to foster and promote in our conduct of the RURAL PRESS. All our departments shall speak the language of progress toward better methods and better results. We shall register each step of advancement which practical men have attained. To this work we invite the co-operation of all our readers. Let us begin from this day to labor until nothing "common" comes from our fields, but every product shall be classed as "choice."

CAPTAIN CHARLES THORNE has received a handsome gold watch and chain as a present from Goodall, Nelson & Perkins steamship company, for meritorious service in navigating the steamship *Los Angeles* through the severe gale encountered on the late voyage to Victoria, when fears were entertained for the safety of the vessel. The chief officer, Mr. Lyons, and the chief engineer, Mr. Hutton, were the recipients of $100 each.

CONCERT.—The private organ concert given in Oakland by Miss Delaye, assisted by Mrs. Marriner, Mr. Louie Schmidt, Mr. C. Makin and others, was very creditable to the artists engaged. The selections were fine and the rendering praiseworthy. The occasion was one of pleasure to all who were present.

THE great astronomer of Paris, Leverrier, who discovered the planet Neptune, has made a prediction which is noteworthy. It is that the winter of 1875-6 will be uncommonly severe. Enormous quantities of snow are to fall in December and January.

ON FILE.—"Agriculture in the Public Schools," Prof. I. K; "Funk Slough Grange," J. R. T., Colusa; "Inquiry Concerning Bee Hives," H. J., Yountville; "Items," Patron, Pescadero.

THE DETROIT SEED CO., Detroit, Mich., have issued their New Floral Guide for 1876. It is a superior publication, and they are offering it free by mail to all applicants. Write to them.

What Trees Shall we Plant?

MESSRS. EDITORS:—The persistent and long continued efforts you have made through your columns in advocating and pointing out to farmers and ranchers the advantages of improving and ornamenting their farms by setting out deciduous and evergreen trees, have not been without result. Tree planting is becoming more general, and the example set by one is frequently followed by a whole neighborhood, for seeing is believing. One is struck, however, by the undue prominence given the eucalyptus, or Anstralian blue gum, while many much more desirable and ornamental trees are little thought of, or entirely neglected.

Now, I, like probably many others, intend to set out a large number of forest and ornamental trees this winter and coming spring, but it being an object to embrace as great a variety as possible, and know the characteristics of each kind, as regards rapidity of growth, hardiness, beauty and the natnre of soil best adapted to them, I believe you would be conferring a general favor conld you afford this much needed information and give a list, supplemented by such comments as your experience and knowledge might suggest—which would enable your readers to make their selections intelligently.

The soil in which I purpose planting the larger portion of my trees is the very heaviest description of adobe, and I should give the preference to those of quick growth, ornamental, and which would thrive well with no assistance after once being put properly in the ground. Thanking you in anticipation, and wishing the RURAL PRESS a prosperous New Year,

I am Yonrs, etc., SONOMA.

San Francisco, Dec. 27th, 1875.

Our correspondent's conditions are hard. To plant trees upon a heavy adobe soil with the condition that they shall not receive cultivation in the way of mulching, irrigation, etc., is difficult if one desires them to grow and flourish. The eucalyptus has demonstrated its ability to do well nnder such conditions, bnt our correspondent desires greater variety, and we think his taste is good in that respect. An adobe soil left to itself dnring the summer will kill almost any tree which is placed in it. The cracking and drying are fatal unless measnres are taken to overcome them.

Of forest trees onr correspondent will probably do best with the deciduous varieties. If he plants at once and gives his land thorough cultivation before planting, he may plant elms with a reasonable prospect of success. Elms of all kinds will have a fair chance; the cork elm is especially adapted to the conditions required. Next best to the elms are maples and the locust. All these deciduons trees give more chances of success than evergreens. Of the latter the Monterey cypress will do best. We shall be pleased to hear from experienced correspondents in comment on the points involved.

How to Prepare a Product.

The advantage of presenting an article in good style upon the market can hardly be overestimated. There is a fine art about production, and its practice is profitable. The eye of the consumer is often the avenue to his taste. Trade yielding continuous profit is often established, first by presenting an article in a neat and attractive form, and it is maintained by observing a characteristic uniformity. The frnit growers' association is aware of this fact, and one of its avowed objects is to place the fruit upon the market in uniform and attractive packages. If this alone shonld be effected, the association would have occasion to be satisfied with its work. We notice, also, that the honey producers of San Diego connty have formed a determination to place their honey upon the market in more attractive form. They will find their sale greatly increased by it. Honey is a luxury, and it must win consumers where a staple food supply would command them. It must please and attract its patrons. And the increased profit from tasteful presentation will be found of advantage in other products as well as fruit and honey. Dairy produce is capable of most artistic adornment as well as plain, and handsome purity and cleanliness, and so are nearly all food supplies coming from the farm. This is not a fanciful consideration; it is a taugible business question which can be demonstrated in gold and silver. Every producer should bear it in mind, and contrive ways in which he, in his special line, can gain its rewards.

The Yellow Rareripe Peach.

We present upon this page an engraving representing the "Yellow Rareripe" peach—a freestone. This variety ripens at nearly the same time as "Crawford's Early," and is much esteemed on account of its flavor. The fruit is large and roundish, the sutnre extending halfway round. The skin is orange yellow with rich red cheek. Flesh, yellow, but red at stone. Flowers small.

Phylloxera on Vine Roots.

MESSRS. EDITORS:—In answer to the inqnlry of your Los Angeles correspondent concerning the possible importation of the phylloxera through cuttings from infested vines, I should say that the use of such cuttings would be altogether unsafe. It is trne that the phylloxera is ordinarily known to winter on the roots, and is not likely to occur in great number on the branches. But it is now known that according to the nature of the vine, climate, locality, etc., the root-inhabiting type may become leaf-inhabiting, and *vice versa*, that the egg bearing females deposit their eggs largely at random, in the fnrze of leaves, buds, etc., where the majority perhaps perishes under ordinary circumstances. Moreover, a single egg is capable of stocking the whole conntry in a few yea s, since sexual reproduction is nnnecessary for five or six generations. It is altogether probable that the insect was originally imported into France in cuttings of American vines, and with a knowledge of the habits of the phylloxera,

YELLOW RARERIPE.

and all previous experience before them, the European governments interested in viniculture have prohibited the importation of cuttings from infested districts, and vines attacked are ordered to be destroyed by fire, root and branch, where the plague first appears.

With these facts before us, and the additional probably that the mild winters of California may allow both eggs and pupæ to winter above ground, under a scale of bark, I would earnestly recommend the utmost caution in planting cuttings from districts not known to be exempt.

EUG. W. HILGARD.

University of California, Dec. 25th.

THE CONCORD VINE FOR SAFETY.—We were favored on Tuesday with a call from W. A. Sanders, of Fresno county, who is well knowu for many good deeds, and especially for enterprise in matters connected with the new industry of raisin culture. During his call Mr. Sanders left us the following item concerning the Coucord grape, which is the result of his experience: "The Concord grape vine proves the best stock on which to graft the finer and more delicate foreign varieties to insure exemption from harm from phyloxera. I have had Concord growing beside other vines where both were equally exposed to injnry from phylloxera; the foreign grapes were killed, while the Concords were not perceptibly injured.

THE trotting stallion, *Rhode Island*, formerly of Sprague farm, R. I., purchased by Governor Session for $6,000, and taken to the sea coast, died on Sunday.

The Castor Bean Question.

MESSRS. EDITORS:—I see in your excellent paper of December 14th an item from "An Old Subscriber," asking if castor beans will keep away gophers, and if they will kill cattle. I wonld refer the party to my letter of April 10th, in No. 15, page 234, in regard to growing the castor bean, and I might reiterate the facts there stated, for I speak from an eight years' experience in raising castor beans, and know whereof I speak, that castor beans will neither drive away gophers nor injure stock of any kind. I have abont fifteen acres of land npon which I have raised castor beans for the past three seasons; adjoining this are two acres of alfalfa. The gophers are about as thick in the beans as in the alfalfa, and I can assnre you there are plenty in both. I never knew them to cut a castor bean root, but they will work among them as readily as among corn stalks. My garden this year was upon land on which I had raised cas'or beans the two previous seasons. Of conrse there were any quantity of volunteer beans, which kept me hocing and cutting them out all summer. Still this did not prevent the gophers from taking most of my beets and onions. And again, there is no fence between the alfalfa and the beans, and my milch cows were running in the field most of the fall. They would feed on the alfalfa awhile and then browse on the beans awhile, appearing to relish them as well as any green feed, and without any apparent effect upon their health or milk, for we used the milk for making bntter and otherwise. I have no doubt but that the castor bean itself wonld affect stock in the same manner that it does people if they conld be persuaded to eat them, but they will not. I have had tons of beans piled up in the fields where stock, hogs and chickens had free access to them, but they never disturbed them. J. R. TOTMAN,

Colusa, December 20th, 1875.

BLEEDING KANSAS.—We have received a proposition by mail which gives us the impression that Kansas has stopped her ensanguined peres and is now endeavoring to bleed the rest of the country. It is an offer to pay us onr own price for advertising a lottery concert and giving us several tickets to draw prizes with besides. We are not publishing a newspaper for the purpose of promoting such delusive schemes as this. We do not subject our readers to the insult of this class of advertisements. We shall throw the full weight of our influence against them every time.

HORTICULTURE.

A Pest on the Almond Tree.

MESSRS. EDITORS.—Your correspondent, A. H. Nixon, seems to be in trouble with his almond trees. Some five years ago we noticed the depredations of insects on the almond trees just as he states. The tree growing where the summers are hot, the thermometer ranging from 90° to 110° temperature, will be attacked by two species of insects, one the red spider, and the other, *Thrips*. The former is *Acarus telarius*, almost imperceptible to the naked eye. When the *Acari* are very numerous, they work a fine web over the whole of the under-side of the leaf, as also round the edges of it, and it is curious enough to observe that they generally carry this web in a straight line from one angular point to another, on which boundary line, on a hot day, they pass and repass in vast numbers. We think there are several species of the *Acarus*, which are confounded under the general name of red spider, as well as several species of *Thrips*, which also in its mode of attack is similar to the *Acarus telarius*. To the scientific observer this is worth inqniry; to the practical horticulturist less so, as the means of their destrnction are certain and well known.

Acarus holosericus is often confounded with *Acarus telarius*, as they are often found at work together on the same leaf, and exactly similar in their mode of destruction. The *Acari* in formation are round or nearly so, whereas *Thrips* are long, bnt very small, and are of two colors, black and white, furnished with wings. We have often seen them, on shaking a tree, rise in swarms, settle down again qnietly to secreto in hosts on the under side of the leaves to again commence their work of leaf destruction by pnncturation.

We are not aware that these insects generate until the snmmer gets very hot, and consequently by that time the wood and blossom buds have pretty well matured for their necessary development in the coming season, and, although we have seen the foliage, say of this season, much mutilated by the joint action of these insects in question, still the next season's growth did not appear damaged through the apparent depredations of the previous year. We think at the same time that the almond would perfect its fruit and general development much better without these little pests of insects, and in order to avoid them, should select land for their growth in such latitudes here in California where the summer average of the thermometer did not range so high as noted previously in these remarks. To destroy insects in the open air is always attended with much labor and difficulty. In glass structures the application of water through a syringe or hose finely and with some force is sure destruction. The best and only remedy in the open field that we are able to suggest is to take two handfuls of flowers of sulphur, rolled very fine, to a barrel of soft water, and syringe the trees from the *under side* of the foliage. The leaves being wetted, the sulphur will adhere to the foliage after the water has evaporated. The sulphur when dry will gradually yield sulphurous acid gas. These fumes constantly being given out, the *Acari* and *Thrip* will not come near it. The application should be applied when the leaves are fully developed in size. This remedy may be applied to any other species of trees in the open air that may be attacked by this species of insects.

JOHN ELLIS, Horticultnrist,
State University.

Pine Apple Sprouts.

MESSRS. EDITORS:—I see in the RURAL PRESS of December 11th, 1875, a communication from "T. H. M.," asking why the farmers of Southern California do not cultivate the pine apple. I for one would like to try the experiment, therefore would like to know where the sprouts or slips can be obtained, and what they would cost per thousand, and what would be the best season of the year to plant them. If "T H. M." or any of your many readers will answer the above questions they will oblige.

W. M. O.

Wilmington, Cal., Dec. 23d, 1875.

THE RIGHT TO SURVEY PUBLIC LANDS.—Two interesting decisions affecting the right to survey public lands were rendered in the United States Circuit Court on Monday. J. G. Messic and Daniel Bell had been indicted by the Grand Jury for having obstructed a United States Deputy Surveyor in the performance of his duty. A demurrer was pleaded to the indictment that an allegation essential to an offence had been omitted. The chargo merely was that the defendants "prevented the surveying of public lands by a deputy appointed and authorized by the Surveyor General." It was defectivo in not alleging that the Surveyor was acting under direct instructions from the Surveyor General to survey the particular lands in question. The court had no doubt that the Surveyor was a duty appointed official, but he might not have had definite instructions in these cases, and in order to make out an offence the statute requires the whole to be averred. The demurrers were therefore sustained. Time was allowed the District Attorney to ascertain whether the defect in the indictments can be cured.—*Call.*

Useful Information.

Will Human Saliva Kill Snakes?—The Marietta (Ga.) *Journal* was told by a gentleman the other day that human spittle was as deadly to poisonous snakes as their bites were deadly to man. He says while picking up a bundle of straw and trash under his arm, while cleaning a field, a ground rattlesnake, four feet long, crawled out from it and fell to the ground at his feet. He at once placed his heel upon the head of the snake and spit in its mouth. Shortly afterward the snake showed symptoms of inactivity and sickness, and he picked it up by its tail and carried it to the house and showed it to his wife, telling her he had spit in its mouth and that it was poisoned. At the expiration of fifteen minutes the snake was dead. To further experiment he came across a blowing adder (snake), which ejected from its mouth a yellowish liquid. He caught it and spit in its mouth, and it died. He caught another blowing, and it refused to open its mouth. He spit upon a stick and rubbed the spittle upon the adder's nose, and it died. Afterward he came across a black snake, regarded as not poisonous, and he caught it and spit in its mouth. Instead of the spittle killing the black snake, as it did the poisonous reptiles, it only made it stupidly sick, from which it recovered. This conclusively shows that poisonous snakes have as much to fear from the spittle of man as man has to fear from their bites.

How Far Will Bees Go for Honey?—This is a question which has never been satisfactorily answered. A bee-keeper once tried the old experiment of dusting his bees with flour as they left the hive, then rode to a heath seven miles away, where he discovered his white bees most busily collecting honey; however, this experiment cannot be relied upon, for the simple reason that pollen, with which bees are often completely covered, bears a general resemblance to flour, and might be mistaken in color when the bees are on the wing. We think they seldom venture more than three miles from home, for we have known them to be in a starving condition when another apiary four miles away was flourishing, and gathering stores rapidly. It has in recent years been proved by Italian hybrids that queens have met with drones which were known to be at least three miles away, but this will scarcely apply to worker bees flitting about from flower to flower; they must become weary before they are three or four miles from their home.

Gold.—The New York *Mercantile Journal* says that in view of the small amount of gold in the world in proportion to the increased amount of commerce, the efforts to regulate exchanges and pay balances in gold is as fruitless as to endeavour to quench the thirst of an elephant from a tea saucer. Within the past year over $60,000,000 worth of gold have been shipped from the port of New York, and about half as much more from San Francisco. This country is sending to Europe annually about $250,000,000 in gold for interest on national and state bonds held there, and for the balance against us for gew-gaws and delicacies we do not need, and for the traveling and living expenses of our snobs who go there and spend their money because this country is too much of a democracy for them.

Coloring Oak Wood.—According to Niedling, a beautiful orange-yellow tone, much admired in a chest at the Vienna Exhibition, may be imparted to oak wood by rubbing it in a warm room with a certain mixture until it acquires a dull polish, and then coating it after an hour with a thin polish, and repeating the coating of polish to improve the depth and brilliancy of the tone. The ingredients for the rubbing mixture are about three ounces of tallow, three-fourths ounce of wax and one pint of oil of turpentine, mixed by heating together and stirring.—*English Mechanic.*

Bursting of a Tire.—One of those accidents, not very common but still well known and understood, of the bursting of a locomotive tire, recently occurred near Oakes station, Penn., on the Perkiomen railroad. It was a steel tire, and the accident occurred while the train was in slow motion, just nearing the station. The tire first struck the foot board, near where the engineer stood, broke it into a thousand splinters, and next bounded thirty feet into the air, and came down in a field more than a hundred yards distant.

The Use of Iodine.—The objection which many persons urge against using tincture of iodine on the skin is, that the stain is ineradicable, except after considerable time. If a few drops of carbolic acid be added to the tincture, says a medical journal, it will not stain; moreover, the tincture itself is more efficacious.

For Smoking Grates, Etc.—A screen or blower of wire gauze, from thirty-six to forty wires to the inch, placed in front of range or stove fires, or grate, will prevent, it is said, smoke coming into the room when the chimney fails to draw well.

A potato parer is among the latest inventions, which, it is claimed, will pare perfectly, long, crooked, unevenly shaped potatoes with a great saving of time, and a large saving of the potato over ordinary hand paring. It also pares turnips or apples.

A Proposed Insect Commission.—A memorial was submitted to the meeting and approved, which addresses Congress with relation to the establishment of a national insect commission. The document states that the damage done by the noxious insects in the United States amounts to $300,000,000 per annum. The subscribers propose either the reorganization of the Department of Agriculture, under the control of the highest scientific authorities, or the appointment of a commission of five persons, to wit: Three entomologists, one chemist, and one botanist, eminent in their respective branches of science, to be chosen by the council of the National Academy of Science, and approved by the secretary of the treasury, with salaries adequate for the responsible work. The duty of this commission would be to investigate the causes which affect injuriously agricultural interests, and to suggest the best means of diminishing the losses. The results of such investigations should be embodied in brief reports, containing practical instructions and made accessible at a small price; or the results should be made useful, by personal education, to every farmer in the country.

An Alloy of Copper Adherent to Glass.—An alloy of copper which will adhere to glass or porcelain is made by mixing from twenty to thirty parts of copper in powder, (obtained by the reduction of the oxide by hydrogen or by the precipitation of the sulphate by zinc) with sulphuric acid and then with seven parts of mercury. The mixture is triturated and mingled with care. The acid is removed by washing in hot water, and the mass allowed to dry. At the end of ten or twelve hours, the latter becomes quite hard and susceptible to a fine polish. On heating it softens, but on cooling does not contract. This alloy may also be used for joining delicate objects which will not withstand very high temperatures.

Lamp Chimneys.—Most people in cleaning lamp chimneys use a brush made of bristles twisted into a wire, or a rag on the point of scissors. Both of these are bad; for without great care the wire or scissors will scratch the glass as a diamond does, which under the expansive power of heat soon breaks, as all scratched glass will. If you want a neat little thing that costs nothing, and will save half your glass, tie a piece of soft sponge the size of your chimney to a pine stick.

To Deodorize Cocoanut Oil.—Mix with 1.32 parts freshly prepared bone black and 1.32 parts calcined magnesia, digest for three days, shaking frequently; let stand till clear and filter.

Origin of the Water Cure.

The water cure, or hydropathy, owes its origin to the fertility of invention of a Silesian peasant, Vincenz Priessnitz. Having at the age of thirteen sprained his wrist, young Priessnitz intuitively applied it to the pump; and afterward, to continue the relief thus obtained, he bound upon it a wet bandage. Re-wetting this as it became dry, he reduced the inflammation, but excited a rash on the surface of the part. Soon after, having crushed his thumb, he again applied the bandage, and the pain once more subsided, but the rash re-appeared. He inferred that the rash indicated an impure blood; and this conclusion was strengthened by the result of experiments which he was induced to try upon injuries and ulcers in the case of some of his neighbors, since the rash in some instances appeared after the treatment, and in others did not. Thus he was led to frame for himself a humoral pathology of all diseases, and a doctrine of the elimination of morbific matter by "crisis." According to this view, the cure of disease is to be effected by favoring the activity of those organs through which the purification of the system is carried on, and, through a regulated and pure dietary and correct regimen, preventing further morbid accumulations. In his nineteenth year, being run over by a cart. Priessnitz had some ribs broken and received severe bruises; on learning that the physicians pronounced his case hopeless, he tore off their bandages, and recovered under the renewed application of the wet bandage, and replaced his ribs by inflating the lungs while pressing the abdomen against a window sill. This incident confirmed the idea and initiated the practice of the water cure.

A Practical Test.—A correspondent sends us the following, which shows the importance of a close examination of our health columns: "A subscriber not at all interested in your 'split bean' remedy when she read it, soon found occasion to do something for a rough nail puncture which was very painful; and was perfectly astonished at the speedy relief, quick and painless healing. Her faith is now strong in that remedy." This fact illustrates a whole class of experience, and shows the utility of knowledge and facts in store for the moment when some emergency will prove their value. Some do not read the health column because they are not then needing such information, but when they do need that knowledge they have not time or opportunity; similarly excused as was the Arkansas farmer for not roofing his house.

Sick Headache.—Two teaspoonfuls of finely powdered charcoal, drank in a half tumbler of water, will often give relief to the sick headache when caused, as in most cases it is, by a superabundance of acid in the stomach.

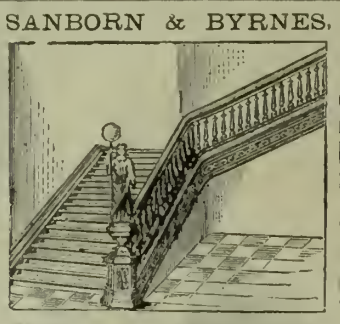
"The Public Lands of California."

The demand for this new work is steadily increasing, and the more widely that its merits are becoming known, its usefulness to everyone is becoming more fully demonstrated. The map of California and Nevada alone is worth more than fifty cents, the price asked for the work, and the fact that a glance at its pages shows the leading products, population, etc., of each county in the State, besides a list of the surveys of United States Land, subject to the homestead and pre-emption laws of Congress; a correct copy of the laws of Congress in regard to locating and holding this land, etc., renders it of inestimable value. Orders sent to Dewey & Co., enclosing fifty cents, will meet with prompt attention, as it will be forwarded immediately post paid.

The Rural Press.—This sterling California agricultural paper enters upon its tenth volume with the first week in July. It is an able advocate of the interests of the Grange, and a thoroughly good farmers' paper, and well deserves the success it has attained.—[Semi-Tropical Farmer.

SANBORN & BYRNES,

STAIR BUILDERS.



Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-3m-bp

To Fruit Growers, Commission Merchants, Proprietors of Fruit Dryers and Canning Factories,

And all others interested in the Production and Sale of Fruit.

Notice is given that the adjourned meeting of the persons who are interested in the formation of a Co-operative Association for the purpose of developing a system whereby the fruit product of California can be fully utilized and sold at fair prices, is called for Tuesday, December 21st, 1875, at two o'clock P. M., at the office of A. W. Thompson, No. 6 Leidesdorff street, San Francisco. By order of the committee,

A. W. THOMPSON, Secretary.

BENNETT & PAGE

NO. 304 DAVIS STREET,

SAN FRANCISCO,

GRAIN AND WOOL

MERCHANTS.

PROMPT RETURNS MADE ON CONSIGNMENTS.

Address, - P. O. Box 1296.

VIRGINIA CITY SUFFERERS' RELIEF FUND.

NOTICE.—All persons who wish to contribute money to the assistance of the sufferers by the late fire in Virginia City, will please make out their checks in the name of GEO. S. DODGE, Treasurer, and leave the same at Rooms 12 or 17, Hayward's Building, California street. Those sending cash will please forward to the same name and destination.

Several solicitors have been appointed, who are provided with pass-books signed by the President, Treasurer and Secretary. The Secretary will be daily in attendance from 9 A. M. to 3 P. M.

HON. J. P. JONES, President.
GEO. S DODGE, Treasurer.
Richard Wheeler, Secretary.

A Fortune for Some Person from a Small Investment.

For sale, the patent right for the Pacific Coast to the EXCELSIOR PORTABLE FAMILY FRUIT DRIER. A long felt want hitherto unsupplied. A low priced, portable, economical family fruit drier. Can be used in connection with the ordinary cook stove. Sells for $65.00 to $75.00. Does as good work as any drier costing thousands of dollars. For sale and can be seen in operation at 31 Beale street, near Market.

J. W. FAULKNER, Patentee.

GUANO FOR SALE,

In Lots to Suit, by

CROSS & CO.,

316 California Street, - - - San Francisco

CHAS. H. PHELPS,

ATTORNEY AT LAW,

306 PINE ST., N. W. Cor. Sansome, SAN FRANCISCO

☞ Especial attention given to cases involving Mining, Patent or Commercial Law.

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

WILLIAM KNOWLES, P. O. Box 337, Oakland, Cal., has for sale Eggs for Hatching, carefully packed, from Brown Leghorns at $4 per doz. Houdans, White Leghorns and Buff Cochins at $3 per doz; two doz. for $5 Sent C. O. D. to any address.

Live Stock Notices.

GABILAN HERD

SPANISH MERINO SHEEP.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head Ewes and Bucks, which, with others that I purchased last Fall, (also direct from Vermont) makes my hand of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the world—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

THOROUGHBRED JERSEY CATTLE.

FOR SALE, twelve hull calves of 1875—three yearling bulls—Also cows and heifers bred from the best imported stock. Address,

A. MAILLIARD,
San Rafael, Marin County, Cal.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

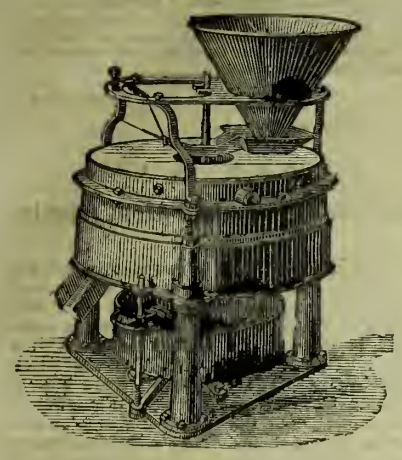
ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER.
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

Agricultural Articles.

J. WAGNER,

MANUFACTURER OF

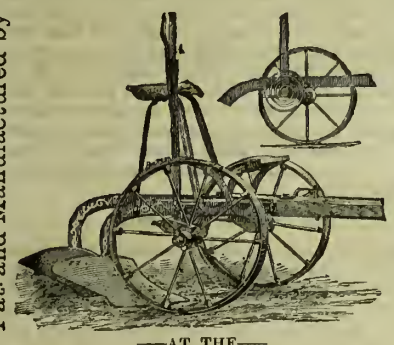
FRENCH BURR MILL STONES AND PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adaptod for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

OAKLAND GANG PLOW

Pat. and Manufactured by HENRY N. DALTON.



—AT THE—

PACHECO Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential featnre of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts npon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or he raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,
Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the bnsiness and know what is required in the construction of Gang Plows. It is quickly adjnsted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied npon as the Best and Most Desirable Gang Plow in the world. Send for circnlar to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,
San Francisco.

Lands and Homes for Sale.

Rich Farm Land For Sale.

L. F. MOULTON, of Colusa,

OFFERS FOR SALE VERY CHEAP, FOUR THOUSAND ACRES OF EXTRA WHEAT OR VEGETABLE LAND, ADJOINING WHICH HAS GROWN FORTY BUSHELS TO THE ACRE THIS YEAR, AND IS EASY TO IRRIGATE, YET HIGH LAND, AND ON THE LINE OF THE COLUSA AND CHICO RAILROAD.

This is the best and cheapest land in the State.

Address the owner, at Colusa, for particlars.

FRUIT RANCH FOR SALE.

Ten miles south-east of San Bernardino. Eighteen acres of vineyard. Ten acres of alfalfa. Several thousand young fruit trees. Abundance of water. Beautiful location and only five miles from the railroad. Terms essy. For particulars, address

WM. CRAIG, San Bernardino, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART, Eureka, Humboldt Co., Cal.

Miscellaneous Notices.

SAVE YOUR HORSE'S FEET!

NO MORE RASPING AND HAMMERING TO CLINCH HORSE-SHOE NAILS. TENDER FOOTED HORSES SHOD WITH EASE. EVERY TEAMSTER HIS OWN BLACKSMITH.

The new patent implement used is an attachment to an ordinary pair of pincers. A scoop-shaped graver, or chisel, and a flattened, roughened plate, (formed in one piece) are hinged and fastened ou to the handle of the pincers. When the forceps are closed the graver projects from one side of the handle, and is retained in that position by allowing the end of the plate to enter a slot between another plate on the other handle, and the handle, thus holding the graver steadily, while the forceps are grasped by both hands, and the grooves cut in the hoof below the point where the nails come through. When the grooves are cut the handles are opened, and the roughened plate turned outward, thus carrying the graver into a slot in the socket, out of the way.

To clinch the nails after the grooves are cut, the handles are opened, and the roughened plate is put bencath the hoof. The edge of a steel plate ou the handle of the forceps is then placed above the nail point, and by closing the handles the nail will be bout down into the groovo already cut, where it lies nearly flush with the hoof. The plate can be adjnsted for large or small hoofs. The groove cut by the graver is about one-eighth of an inch long and one-eighth of an inch wide. No hammering or rasping is necessary. The foot is not bruised or scarred. Any one can learu to use it in a few minutes. Tonder-footed horses can be shod with no pain to them. Further information given, if desired, by CARLES R. DONNER, Inventor, or C. F. SUHL, Cor. Commercial & Drumm Sts., S. F. eowbp

THE ALDEN FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and uutried dryers before they have demoustrated their superiority by at least one year's regular work. Send for our circulars.

Holloway's Sure Death

—TO—

GOPHERS, SQUIRRELS AND RATS.

This proparation, compounded by a most skillful chemist, is the most efficient poison for the extermination of Gophers and Squirrels. It is cheaper than strychnine, and in using it, saves a great deal of time and unpleasant work. Price, 75 cents per pound. For sale everywhore.

ABRAMS & CARROLL,
WHOLESALE DRUGGISTS,
SOLE AGENTS.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls reduced prices. Send for Pri List.

ALBERT E. BURBANK,
1v8-3m 43 & 47 Cal. Market S.F

NEW FRUIT DRIER FOR THE CENTENNIAL.

A man of limited means has recently invented a New Fruit Drier, which he wishes to exhibit at the Centennial. It is adapted to either farm or factory purposes,

Dries all kinds of Fruit and Vegetables,

And makes the finest kind of Raisins, with less labor and less fuel than any other Drier ever invented. He wishes to dispose of an interest in it or take a partnor who will furnish means to carry out his plan. This will afford some enterprising man a good opportunity to visit the Centennial, and make money at the same time by selling the Patent. For particulars call on or address

TIFFANY & ROBERTS,
207 Kearny Street, S. F.

P. S.—We refer to DEWEY & Co., Patent Solicitors, through whose Agency the patent was obtained.

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in ¼, ½, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the office.

OFFICE and DEPOT:	FACTORY:
117 Pine Street, near Front.	Cor. 4th & Townsend Sts.
3v9-cow-bp-1y	SAN FRANCISCO, CAL.

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four tablespoonfuls to a washtub of water. For bathing, use one tablespoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.

Also, SULPHATE OF AMMONIA for chemical purpose, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION, for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and PURE LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

☞ Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.
eowbp

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine imported Australian, French and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,
433 California Street, S. F.
(Merchants' Exchange.)

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

California Farmers' Mutual Fire Insurance Association.

No. 6 Leidesdorff St., Rear of Grangers' Bank.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR,	Pres't	I. G. GARDNER	V. Pres't
G. P. KELLOGG,	Treasurer	A. W. THOMPSON	Att'y
I. C. STEELE	San Mateo	CHAS. LAIRD	Salinas
A. WOLF	Stockton	A. D. LOGAN	Colusa
W. H. BAXTER	S. F.	G. W. COLBY	Butte Co
J. C. MERRYFIELD,	Dixon	C. J. CRESSEY	Oakland
A. B. NALLY	Santa Rosa	E. W. STEELE,	S. L. Obispo

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$8,026,378.00
TOTAL PREMIUMS	63,306.40
LOSSES PAID	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry Gooods, Cigars, Candies, Candied Fruits, Honey, Maccaroni, Crackers, Sugar, Soap, Boots, Etc,

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Stylo at Favorable Prices. Orders from the country well attended to

MICROSCOPES AGAIN.

Just arrived, another lot of Microscopes, only more kinds and more of them, as follows:

No. 1. A handy little brass mounted Microscope, very powerful for the size; just the thing for everybody to have in their waistcoat pocket, to increase their field of vision from twenty-five to fifty times, whether a tiny flower or blasted grain; it is good for either. Sent for one dollar postage stamps or currency.

No. 2. A two story Microscope, not in size but simply having an under story, put in to raise up the upper story, which is enclosed in glass. The top can be taken off and a small object, like a flea or fly, can be dropped in. About as powerful as No. 1. Sent free to any address for one dollar, postage stamps or currency.

No. 3. Much larger, and is also enclosed in glass. Too large for the pocket. These last have from ten to one hundred, more or less, mounted objects, consisting of bugs, shells, grain, moss, etc. The top of this also comes off and a flea can be dropped in, which will make it very large, showing its rings, looking somewhat like an armadillo loose in a fairy palace. Sent free to any address for two dollars, postage stamps or currency. Address

CHAS. P. KIMBALL,
513 Hayes Street, San Francisco.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

(Continued from Page 5.)

TULARE.

GRAIN.—*Times*, Dec. 25: There will be by far a larger crop of grain sown in this county than ever before. The prospects are flattering for rain, and there will be over 50,000 acres irrigated in this county this year, which will be sure to yield a large crop. The future of our county is great.

VENTURA.

BLOSSOMS. — *Signal*, Dec. 18: Peach and almond trees are in bloom. M. Gray, of Santa Paula, hopes, by protecting some of the trees in bloom, to have early fruit.

SANTA PAULA.—It was with pleasure that we accepted an invitation to visit the home place of our friend Sewell, of Santa Paula, one day during the week. We found that since last year his great grove of blue gums, the largest in the county, had grown wonderfully. Some of his trees are now over forty feet high and six inches in diameter. These are only three years old from the seed. Next to Mr. Sewell's place is Clark and Blanchard's young orange orchard of 100 acres, which looks thrifty, as if well cared for. In hastily passing through Santa Paula we noticed many new business houses and residences. The town is evidently flourishing, and bids fair to become a city of no little importance. There is no question now but that the orange, lemon and lime, and all the semi-tropical fruits will grow to perfection there. The experience of Messrs. Haines, Todd, Gries and others, is amply sufficient to demonstrate the fact. Three years since land near Santa Paula could have been purchased for $25 per acre; now it is worth from $50 to $75, and rapidly rising. Those who would secure homes in this lovely locality should do so at once. It is just far enough from the sea. All the rough winds and heavy fogs are escaped.

YOLO.

GRAIN PROSPECT.—*Democrat*, Dec. 24: The early grain is all that could be desired up to this point in the season. The summer-fallowed that was sown before the rains and also the volunteer wheat is looking very fine—thick and even on the ground and of a dark green color. So far everything bids fair for a very favorable harvest next summer.

TALL WHEAT.—*Mail*, Dec. 21: H. M. Cassilis, of West Grafton township, Yolo county, pulled a sample bunch of wheat from a field of volunteer, last week, which measured nine and one half inches above ground. The bunch taken from this field was a sample of the whole, which is said to be very even in growth Reports from that part of the country are very flattering as regards the coming crops. The area which will be covered with wheat the coming season is simply immense.

Washington Territory.

INCREASED TRADE.—*Union:* The shipment of valley produce still continues as rapidly as the steamer can take it down the river. We notice of late that the amount of flour shipment is increasing, while the shipment of wheat must of course decrease to some extent, not for the want of any amount of wheat to ship, but for the lack of river transportation. The flour made here is nearly all shipped out of the country as fast as it is made, and as a consequence there is but very little on hand.

New Books.

VICK'S FLORAL GUIDE.—We have received a copy of Vick's Floral Guide for 1876. It is an excellent publication, and is praiseworthy in many ways. It is repleto with new facts concerning flowers and vegetables, and with instructions concerning their culture. Among the most interesting topics we notice an illustrated essay on mushroom growing, and another concerning berry-bearing plants which are used for decorations. Mr. Vick also gives an entertaining account of his recent visit to the Yosemite valley. The Floral Guide is published at twenty-five cents a year, and may be obtained by addressing James Vick, Rochester, New York.

CROFUTT'S GUIDE.—The typical illustration, "Westward Ho," which we print elsewhere this week, was designed for Crotutt's Guide tor the Overland Trip. Mr. Crofutt's publication has met a large sale, and is the standard work in its class. It is purchasable from the train boys on the overland trains.

PRICES IN MENDOCINO CO.—Rainfall up to Dec. 25th, fourteen and a half inches. Scarcely any frost at all, no damage done; grain growing finely—a large breadth sown. Considerable old grain on hand. Hay scarce and commands $20 per ton. Hogs, five cents on foot; bacon, fourteen cents from the wagon, eighteen cents from store. Taxes, $1.85 per $100. Interest, one and a quarter per cent. per month, payable quarterly. Sheep in good order and some lambs dropped in small bands. Mutton sheep, $2 25; beef, six and a half cents. Retail from shops, eight to twelve and a half cents. Cabbage, four cents retail. A. O. C.

Ukiah, Dec. 25th.

PROSPERITY IN SONOMA.—MESSRS. EDITORS: We have had a beautiful winter, so far. Farmers are plowing and sowing grain. Weather warm and pleasant. No frost yet to kill tomatoes. Volunteer potatoes nearly in blossom, and plenty of green feed for stock on the hills. We have had sufficient rain to insure a full crop, and farmers are jubilant. W. A. GLADDEN.

Healdsburg, Dec. 27th, 1875.

General News Items.

THE Supervisors have refused to cede Union square for a postoffice site.

UNITED STATES troops are en route for the Southern frontier.

MOODY AND SANKEY are to be invited to this coast by the Ministerial Union.

THE "Commercial Bank" of this city suspended on presentation of a check tor $800.

THE Board of Underwriters of this city have petitioned the Supervisors to extend the fire limits.

MOULTON has instituted another suit against, Beecher for malicious prosecution, setting the damages at $50,000.

CAPTAIN James Towle has been re-appointed by the State Prison Commissioners Captain of the Prison Guard.

THE annual election of officers of the California Academy of Sciences will take place on Monday, January 3d, 1876.

AN eighty-hour trip from New York to San Francisco is contemplated. Three days and a third will he pretty good time.

CAPT. W. F. Swasey, the first Marshal of California, has been appointed United States Marshal of Wyoming Territory.

A GREAT battle has been fought between the government troops and insurgents at the seat of war in Herzegovina.

PRESIDENT GRANT has signed the bill further extending the time of duration of the Court of Commissioners of *Alabama* Claims to the 22d of July next.

ONE of the keepers of Queen's menagerie at San Leandro, came nearly being annihilated, recently, by the infuriated mother of a cub lion.

THE Pacific mills, Lawrence, Mass., announce a reduction of from 10 to 15 per cent. in wages after January 1st, owing to the depression in the price of print cloths.

IN the Louisiana State lottery, No. 16,709 drew $50,000 and No. 2 249 drew $20,000.

HENRY C BOWEN, who sued the Brooklyn *Eagle* for libel, $100.000 damages, has been awarded $1,000 damages.

THERE has been received a formal acceptance by the Pope of an invitation by the Centennial authorities requesting him to give his recognition to the enterprise by a contribution of art from the galleries of the Vatteau.

THE *Three Brothers* sailed Friday for Liverpool, carrying a cargo of 8,960,000 pounds, or 4,480 tons, of which 4,410 tons were wheat. On her first trip, October 23d, 1873, she carried 4,366½ tons and on the second trip, December 28, 1874, she had on board 4,480 tons of wheat.

MRS. ALVINZA HAYWARD sues for a divorce from her husband, Alvinza Hayward, the capitalist, on the ground of desertion. The answer to the complaint makes no denials, and joins with the prayer of the plaintiff to divide the common property—estimated at $10,000,000.

THREE miners were killed by a snow slide at Little Cottonwood, Utah, on Monday last. One of them was James O. Moore, superintendent of the Highland Chief mine.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Dec. 28th, 1875.

FOR WEEK ENDING DECEMBER 14th, 1875."

SLEEPING CARS. Joseph Bolt, Benicia, Cal.

GAS HOLDERS.—Louis Marks, S. F., Cal.

WATCH CLEANING FLUID.—August Mounier, Sacramento, Cal.

TILTING DRAWER.—William S. Moses, S. F., Cal.

REVERSIBLE CENTER PINIONS FOR WATCHES.—Frank E. Smith, San Jose, Cal.

PRINTING PHOTOGRAPHS.—Benjamin Swasey, S. F., Cal.

CLUTCH. Alfred Swingle, S. F., Cal.

DOUBLE ACTING PUMP.—Louis Bourier, San Jose, Cal.

LIFTING JACK.—Alexander Duncan, Duncan Mills, Cal.

HARNESS FOR FIRE ENGINES, ETC.—Edward O. Sullivan, S. F., Cal.

"The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

A COMPLIMNT.

PLAINSBURG, MERCED CO CAL., June 22, 1874.

DEWEY & Co.—*Gentlemen:* I herewith tender my grateful acknowledgements for the energy, promptness and efficiency which you have displayed in procuring my patent.

Although you were entire strangers to me when I first communicated with you, I soon felt satisfied you were gentlemen of integrity, and shall always be happy to represent you as such. Very truly yours,

H. W. RUCKER, M. D.

THE PACIFIC RURAL PRESS

For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the PRESS MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the RURAL and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the RURAL PRESS may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the RURAL PRESS for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our HOME CIRCLE department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old, boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the RURAL will be cared for in our GOOD HEALTH, USEFUL INFORMATION and DOMESTIC ECONOMY columns. Our GENERAL NEWS ITEMS, NEW INVENTIONS, SCIENTIFIC and MECHANICAL MISCELLANY articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the RURAL PRESS will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the RURAL PRESS of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the PACIFIC RURAL PRESS will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

We Prepay the Postage

On all papers sent to subscribers in the United States. SUBSCRIPTION RATES, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers,

No. 224 Sansome street, S. F.

DEWEY & CO.,

American & Foreign Patent Agents,

The best, speediest, and surest method for you to obtain patents, file caveats, or transact any other important business with the Patent Office at Washington, or with foreign countries, is through the agency of DEWEY & CO., PUBLISHERS OF THE MINING AND SCIENTIFIC PRESS, SAN FRANCISCO, an able, responsible, and long-established firm, and the principal agents on this side of the continent. They refer to the thousands of inventors who have patronized them, and to all prominent business men of the Pacific Coast, who are more or less familiar with their reputation as straightforward journalists and patent solicitors and counsellors.

We not only more readily apprehend the points and secure much more fully and quickly the patents for our home inventors, but with the influence of our carefully read and extensively circulated journals, we are enabled to illustrate the intrinsic merits of good patents, and secure a due reward to the inventor, besides serving the public who are more ready to give a fair trial, and adopt a good thing, upon the recommendation of honest and intelligent publishers.

To Obtain a Patent.

A well-constructed model is generally first needed, if the invention can well be thus illustrated. It must not exceed 12 inches in length or hight. When practicable, a smaller model is even more desirable. Paint or engrave the name of the article, and the name of the inventor, and his address upon it.

Send the model (by express or other reliable convoyance), plainly addressed, to "DEWEY & Co., MINING AND SCIENTIFIC PRESS OFFICE, SAN FRANCISCO." At the same time, send a full description, embodying all the ideas and claims of the inventor respecting the improvement describing the various parts and their operations.

Also send $15 currency, amount of first fee of the Government. The case will be placed on our regular file, the drawings executed, and the documents made up, and soon sent to the inventor for signing.

As soon as signed and returned to us with the fees then due us, it will be sent straightway to the Patent Office at Washington

For designs no models are necessary. Duplicate drawings are required, and the specifications and other papers should be made up with care and accuracy. In some instances for design patents two photographs, with the negative, answer well instead of drawings.

For further information, send a stamp for our illustrated circular, containing a digest of PATENT LAWS, 112 illustrated mechanical movements, and HINTS and INSTRUCTIONS regarding the RIGHTS and PRIVILEGES of inventors and patentees, which will be furnished post paid.

Also a copy of NEW PATENT LAW of 1870.

When the invention consists of a new article of manufacture, a medicine, or a new composition, samples of the separated ingredients, sufficient to make the experiment (unless they are of a common and well-known character), and also of the manufactured article itself, must be furnished, with full description of the entire preparation.

For Processes, frequently no model or drawings are necessary. In such case, the applican has only to send us an exact description, an what is desirable to claim.

Address DEWEY & CO.,

PUBLISHERS, PATENT AGENTS AND ENGRAVERS,

No. 224 Sansome street, S. F

Thanks for Prompt Attention.

STOCKTON, June 26, 1875.

Messrs. Dewey & Co., S. F.:—

I have received the patent for my invention in wagon brakes, which you prosecuted for me; patented May 11, 1875—No. 163,046. Thanks to you for your prompt attention to the case; you will hereafter be my attorneys in such cases. I recommend all inventors on the Pacific coast to give you a call, which I think they will never have any cause to regret. Very truly yours,

GEO. G. BUCKLAND,
Stockton, Cal.

THE RURAL PRESS.—This excellent agricultural journal has entered upon its tenth volume, with every mark of increasing prosperity, and with it, increasing usefulness. We are glad to note this, and although the PRESS and *Agriculturist* are rivals in a certain sense, we have no desire to succeed at the expense of our generous rival. We are both working for the advancement of the same interests, and we have both achieved great success in the direction. We wish the PRESS renewed success.—[Sac. Valley Agriculturist, July 4th.

ADDRESS WANTED.—If those subscribers to the RURAL PRESS who answer to the following names, will send their P. O. address to this office, they will greatly oblige the publishers: H. Overaker, Antonio Byros, L. Boyer, F. Anson and M. Levis.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, December 29, 1875.

The general tone of trade is quiet, the holiday spirit and disposition still exerting its influence. In staple products there is nothing of special note to record, and in fancy articles there is little hut a general lightening up of demand as the Christmas crisis is past.

Wheat has been quiet throughout the week, there has been, however, a little done in the way of expert at former prices. There are now in port 16 vessels loaded or chartered for Wheat. We note an engagement of the British ship *Rydalmere* for 1,312 tons of Wheat at £2 10s per ton.

The cable rate to the Produce Exchange to-day is 10s 5d@10s 10d for average California, and 10s 10d@11s 6d for Club. As compared with Wednesday of last week there is a decline of 2d in the outside quotation for average California, while the outside of Club remains stationary. The quotation as compared with the same date of former years is as follows:

	Average.	Club.
1873	13s 5d@13s 8d	13s 9d@14s 3d
1874	9s 10d@10s 4d	10s 4d@10s 9d
1875	10s 5d@10s 10d	10s 10d@11s 6d

The course of the Liverpool quotation to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices.

	Average.	Club.
Thursday	10s 6d@11s	11s —@11s 6d
Friday	10s 5d@10s 10d	11s —@11s 6d
Saturday	Holiday	No quotations.
Monday	Holiday	No quotations.
Tuesday	10s 5d@10s 10d	10s 10d@11s 6d
Wednesday	10s 5d@10s 10d	10s 10d@11s 6d

The foreign advices by cable are not very favorable, although an improvement in prices is expected in view of reduced imports. On this point the *Mark Lane Express*, as telegraphed December 27th, says:

"Large imports since the 1st of September have kept prices down; but we cannot expect imports to continue while rates are so low. The business in Europe is seasonably dull, and prices are barely maintained. At Paris and its several provincial markets, flour has again dropped a franc, and wh at one shilling and sixpence. Belgium and Holland are about a shilling lower. Vienna is dropping, and Odessa is dull, holders maintaining high prices."

In the general Produce trade there are few specia features which will be noted below. The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compsred with the receipts of the week beforo:

Receipts of Domestic Produce.

Articles.	Week Ending December 22.	Week Ending December 29.
Flour, quarter sacks.	56,600	22,537
Wheat, centals.	89,021	201,128
Barley, centals.	28,383	15,472
Beans, sacks.	6,304	523
Potatoes, sacks.	24,525	6,172
Onions, sacks.	903	1,476
Wool, bales.	442	251
Hops, bales.	123	39
Hay, bales.	1,062	566

Bags—In Bags thoro is little doing, although in general stock there is a slight upward feeling, as dealers are disposed to hold stock for the coming trade. Flour Bags are moving freely at quotations. Potato Gunnies sre now sold at 16c.

Barley—Barley is still low and depressed. Coast Chevalier is selling nearly at Feed prices, although choice selections of hright quality are still gaining full prices. We aro advised of Feed Barley selling as low as $1.10 per ctl.

Beans—Beans are plentiful at former prices. Colored Beans are rather scarce and in good demand.

Corn—Corn is abundant and depressed at present. Our quotatlens are full values. Sales are reported as low as $1 per ctl for common.

Dairy Produce—Supplies of Butter are ample and a slight decline is noted in our quotations. The abundant feed and a general effort to supply the demand has resulted in a full market. Cheese is unchanged. Eggs have declined from 5 to 10c per dozon.

Feed—The trade in Feed is dull and prices are unchanged.

Fish—The Fish markets are poorly supplied. There are no Cod or Rockfish in market, and the tables are generally scant.

Fresh Meats—Really good Beef and Mutton are scarce, although prices for extras have receded a little from the Christmas rates. Hogs are firm.

Smoked Meats—The market is bare of Eastern Hams, and quotations are only nominal. There may be a supply of Eastern on hand in a fortnight, meantime the trade is goiug Worsters almost exclusively.

Fruit—The Fruit trade has fallen off considerably since our last. There is nothing especially new in the market. The Los Angeles Oranges have sold at a wide range of prices, as noted in our quotations. The quality is ordinsry, as is common with the early receipts.

Hops—Are dull and business is small. Concerning the New York trade we have the following from Emmett Wells' Circular:

"With reduced freight rates to London, shippers have been buying more freely, and the market has assumed a somewhat firmer tone. Exceptional sales of very choice Hops have been made this week at a fraction above 15c, but most of the transactions have been on a basis of 13@14c. Fine Hops are getting very scarce, and should a spirited demand for export spring up at any time, it would not be surprising to see an important advance in the price of such. Medium and low grades not being wanted at any price for export, of course will continue to drag until wanted for home use. The country markets are reported more active, and purchases of good shipping Hops have been freely made at about 12c. Californians are quoted at 17@20c."

Potatoes—Early Rose are a little higher; other kinds are unchanged. There have been received during the week ssveral lots of Sacramento river Sweet Potatocs of ordinary quality, which are selling at 3c ₱ lb.

Onions—Are quoted a trifle lower than last week.

Poultry and Game—Poultry declines as the holiday demand decreases. Full quotations are given in our tables.

Seeds—There is noticeable a slight increase in our quotations for Alfalfa, owing to a better demand and a feeling of short supply.

Wheat—Wheat is quiet at quotations.

Wool—Wool is unchanged and there is little doing.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., December 29, 1875.

BEANS.			
Bayo, ₱ ctl	—	@	2 65
Butter	2 25	@	2 75
Pea	—	@	1 90
Pink	1 90	@	2 00
Sm'l wh	—	@	1 87
BROOM CORN.			
Common, ₱ lb	2	@	3
Choice, do	4	@	5
COTTON.			
Cotton, ₱ lb	15	@	18
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Fresh Roll per lb	30	@	35
Point Reyes	—	@	37½
Firkin	30	@	32½
W'st'n Reserve	17	@	22½
New York	21½	@	30
CHEESE.			
Cheese, Cal	15	@	17
Eastern	16	@	20
EGGS.			
Cal. fresh ₱ doz	—	@	57½
Ducks'	—	@	55
Eastern	15	@	30
Oregon	—	@	50
FEED.			
Bran, per ton	—	@	22 50
Corn Meal	29 00	@	30 00
Hay	15 00	@	19 00
Middlings	30 00	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	65	@	75
FLOUR.			
Extra ₱ bbl	5 75	@	6 25
Superfine	4 75	@	5 00
FRESH MEAT.			
Beef 1st quality lb	8	@	9
Second do	6	@	8
Third do	5	@	5½
Lamb	—	@	25
Mutton	5	@	6
Pork, undressed	6½	@	6¾
do, dressed	9	@	9¼
Veal	5	@	7
Milk Calves	9	@	11
GRAIN, ETC.			
Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Cbevalier	—	@	1 50
Corn, White	1 10	@	1 15
do Yellow	1 15	@	1 17½
Oats	1 80	@	2 00
Rye	1 50	@	1 55
Wheat shipping	1 90	@	1 95
do milling	1 95	@	2 00
HIDES.			
Hides, dry	15	@	16½
do wet salted	7	@	7½
HONEY, ETC.			
Beeswax, per lb	27½	@	30
Honey in comb	18	@	22½
do Strained	6	@	12½
HOPS.			
New crop	12½	@	18
NUTS—Jobbing.			
Alm'ds b'rd sh'l lb	8	@	10
do, soft sh'l	16	@	20
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18
ONIONS.			
Union City ctl	—	@	1 12½
Stockt n	50	@	1 00
POTATOES.			
Petaluma	1 20	@	1 40
Salt Lake	1 65	@	1 70
Sac River	1 00	@	1 25
Humboldt	1 25	@	1 50
Early Rose	2 00	@	2 25
Sweet	—	@	3 00
POULTRY & GAME			
Hens, per dz	6 50	@	7 50
Roosters	6 50	@	7 50
Broilers	4 50	@	5 50
Ducks, tame, dz	8 00	@	9 00
do Mallard	2 50	@	3 50
do Canvass	3 50	@	4 50
Geese, per pair	2 50	@	4 00
do Wild Gray	3 00	@	4 00
do White	1 50	@	2 00
Turkeys, Live, lb	17	@	18
do Dressed	20	@	22
Quail, per doz	1 50	@	1 75
Snipe, Eng., doz	1 50	@	2 00
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	3 00
Venison, per lb	7	@	9
PROVISIONS.			
Cal. Bacon, L'ght do Medium	15	@	15½
do Heavy	14	@	14¾
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'rn Should's	—	@	10
Hams, Cal	13	@	14½
do Whittakers	20	@	23
do Armour	20	@	21
do Boyd's	20	@	22
do Worster's	—	@	21
SEEDS.			
Alfalfa, Chile lb	2½	@	11½
do California	11	@	14
Canary	—	@	20
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennia do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do. Brown	3	@	3½
Rape	9	@	11
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	75	@	1 00
Orchard do	30	@	35
Red Top do	25	@	30
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy	11	@	13
TALLOW.			
Crude	6¾	@	7
Refined	9	@	9½
WOOL, ETC.			
FALL—			
Seedy	11	@	12½
Choice free	12	@	18
Burry	9	@	11
Oregon	—	@	—

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., December 29, 1875.

FRUIT MARKET.			
Oranges Mex. ₱ M	15 00	@	35 00
Tahiti, do	—	@	—
Cal. do	15 00	@	40 00
Limes, Mexican, ₱ M	10 00	@	15 00
Malaga Lemons, ₱ bx	12 00	@	15 00
Cal. ₱ 100	2 50	@	3 00
do Sicily ₱ b'x	—	@	—
Bananas, ₱ bnch	3 00	@	4 50
Cocoanuts, ₱ 100	8 00	@	10 00
Pineapples, ₱ dz	—	@	6 00
Apples, ₱ box	1 00	@	1 25
do Choice	2 00	@	2 50
Blackberries	—	@	—
Figs	—	@	—
Huckleberries	—	@	—
Strawber's ₱ ch	—	@	20 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ ch	—	@	—
Quinces ₱ bx	—	@	—
Cranberries ₱ bbl	13 00	@	14 00
Peaches, ₱ bx	—	@	—
Pears, ₱ bx	75	@	1 00
do Choice	2 00	@	3 00
Crab apples, ₱ bx	—	@	—
DRIED FRUIT.			
Apples, ₱ lb	7	@	9
Pears, ₱ lb	8	@	13
Peaches, ₱ lb	11	@	13
Apricots, ₱ lb	12½	@	15
Plums, ₱ lb	8	@	6
Pitted, do ₱ lb	18	@	20
Raisins, imported	3 25	@	3 75
Black Figs, ₱ lb	5	@	10
White, do	8	@	10
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10
Cal. Raisins	3	@	12½
VEGETABLES.			
Asparagus	—	@	—
Beets	—	@	—
Cabbage, ₱ 100 lbs	50	@	62½
Carrots, per ton	8 00	@	10 00
Cauliflower, doz	50	@	75
Celery, doz	50	@	75
Garlic, ₱ lb	—	@	8
Green Peas	—	@	10
Green Corn ₱ doz	—	@	—
Sum'r Squash ₱ box	—	@	—
Marro'fat Sq'sh, tn	6 00	@	8 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Parsnips	—	@	—
Shell Beans	2	@	3
Peppers, green, bx	75	@	1 00
Okra	4	@	5
Cucumbers, ₱ box	1 25	@	1 75
Tomatoes, box	1 00	@	1 50
Egg Plant, bx	—	@	—
Rhubarb	—	@	—
Lettuce	—	@	—
Turnips, pr ton	—	@	—
Mushrooms, lb	8	@	10

LUMBER.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
Rough, ₱ M	$18 00	Rough, ₱ M	22 50
Rough refuse, ₱ M	14 00	Fencing, ₱ M	22 50
Rough clear, ₱ M	30 00	Flooring and Step, ₱ M	32 50
Rough clear refuse, M	20 00	Flooring, narrow, ₱ M	35 00
Rustic, ₱ M	32 50	Flooring, 2d quality, M	25 00
Rustic, refuse, ₱ M	24 00	Latbs, ₱ M	3 50
Surfaced, ₱ M	30 00	Furring, ₱ lineal ft	—
Surfaced refuse, ₱ M	20 00	**REDWOOD—Retail.**	
Flooring, ₱ M	28 00	Rough, ₱ M	22 50
Flooring, refuse, ₱ M	20 00	Rough refusc, ₱ M	18 00
Beaded flooring, ₱ M	30 00	Rough Pickets, ₱ M	18 00
Beaded floor, refuse, M	25 00	Rough Pickets, p'd, M	20 00
Half-inch Siding, M	22 50	Fancy Pickets, ₱ M	30 00
Half-inch siding, ref, M	16 00	Siding, ₱ M	25 00
Half-inch, Surfaced, M	25 00	Surfaced and Long Beaded	37 50
Half-inch Surf. ref., M	18 00	Flooring	35 00
Half-inch Battens, M	22 50	Do do refuse, ₱ M	25 00
Pickets, rough, ₱ M	13 00	Half-inch surfaced, M	32 50
Pickets, rough, p'ntd	16 00	Rustic, No. 1, ₱ M	40 00
Pickets, fancy, p'ntd	25 00	Battens, ₱ lineal foot	¼
Shingles, ₱ M	3 00	Shingles ₱ M	3 25

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by CHARLES SUTRO & CO.]

SAN FRANCISCO, December 29, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 88¼ to 88¾.

GOLD in N. Y. 113.

GOLD BARS, 890. SILVER BARS, 7½ and 8 per cent. discount.

EXCHANGE on N.Y., 60-100 per cent premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, three to five per cent. discount.

LONDON — Consols, 93 to 93⅛; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per lb, 72½@75c.

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., December 29, 1875.

BAGS.			
Eng. Stand Wht	10	@	10½
Neville & Co's			
Hand Sewed	16	@	10½
22x36	2¼	@	10
24x36	11	@	11½
24x40	12	@	12½
Machine do 24x40	12	@	12½
" " 23x40	11¼	@	11½
" " 22x40	11	@	11¼
" " 22x36	9½	@	10
Flour Sacks ½s	9½	@	11
" ¼s	6¼	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¾	@	14½
do 45-in	8½	@	9
do 40-in	7½	@	8
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	16
single seam do	—	@	—
Bean Bags	7½	@	8
Barley Bags 24x36	11¾	@	12
do 23x40	11½	@	12
do 24x40	12	@	12½
Oat Bags, 24x40	12	@	12½
do 28x36	—	@	13½
Derrick's "E. W."	9½	@	10
do "E"	—	@	9½
CANNED GOODS.			
Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 60
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr hox	65	@	1 90
do hf hoxes	3 00	@	—
COAL—Jobbing.			
Australian, ₱ ton	8 50	@	8 75
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	16	@	18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	25 00
Liverpool	10 00	@	12 00
West Hartley	11 00	@	12 00
Scotch	9 00	@	10 00
Scranton	13 00	@	14 00
Vancouver's Isl.	10 50	@	13 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60
COFFEE.			
Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Gnatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in cs	25	@	—
Chicory	27	@	—
FISH.			
Sac. Dry Cod, new	4	@	4½
cases	6	@	6½
do boneless	8½	@	10
Eastern Cod	7½	@	8
Salmon in bbls	8 50	@	9 00
do ½ bbls	4 50	@	5 00
do 2lb cans	2 25	@	2 30
do 1lb cans	1 25	@	1 30
do Col. R. ½s	5 00	@	5 50
Pick. Cod, hbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bbls	9 00	@	11 00
" Extra	—	@	12 00
" in kits	1 90	@	2 00
" Ex mess	3 00	@	3 50
" Ex mess. ½bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50
HARDWARE.			
Amoskeag handled Axes $16@17; do unhandled do $13@14—less 50c in 5 case lots.			
Amoskeag Hatchets, Shingling, No 1, $7.25; No. 2, $8; No. 3, $8.25. Do do, Claw No. 1, $7.75; No. 2, 8.50; No. 3, $9.25—less 10 per cent.			
Locks, Yale Lock M'f'g Co., discount 33⅓ per cent. from list.			
Planes, Ohio Tool Co., discount 30 per cent. from list.			
Am. Tack Co's Cut Tacks 65½ per cent. discount and 5 per cent. extra. Finishing and Clout Nails net list; 3d fine Nails $7.00 per keg.			
Obio Butt Co's Loose Joint Butts 50 per cent. do Fast, 35 per cent off list.			
Machine Bolts, 20@35 off.			
Square Nuts, 2@3c off list.			
Hexagon Nuts 2@3c off list.			
Wrought Iron Washers, 2@3c off list.			
Lag Screws, 15 per cent off list.			
MISCELLANEOUS.			
Pulu	7	@	9
NAILS.			
Assorted size, lb	3 75	@	4 00
OILS.			
Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No 1	—	@	1 25
Baker's A A	—	@	1 40
Cocoanut	55	@	60
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	80	@	—
do boiled	—	@	75
China nut in cs	70	@	75
Sperm, crude	—	@	1 40
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	—
Lard	—	@	—
Oleophine	—	@	28
Devoe's Bril't	—	@	—
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel Kerosene	23	@	25
Olive	—	@	3 50
Downer Kerosene	40	@	50
Gas Light Oil	23	@	25
PAINTS.			
Pure White Lead	9¾	@	10¼
Whiting	—	@	2
Putty	4	@	5¾
Chalk	—	@	2½
Paris White	2¾	@	—
Ochre	3	@	5
Venetian Red	3½	@	5
Red Lead	10	@	11
Litbarge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal.			
White & tints	2 00	@	2 40
Green, Blue & Cb Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60
RICE.			
Cbina No. 1	6 00	@	6 25
Japan	—	@	—
Siam Cleaned	—	@	—
Patna	—	@	—
Hawaiian, ₱ lb	—	@	8
Carolina, ₱ lb	10	@	—
SALT.			
Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00
SOAP.			
Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	10
SPICES.			
Cloves	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	17½
Pimento	—	@	15½
Gr'nd Allsp'rd'z	—	@	12½
do Cassia do	—	@	1 50
do Cloves do	—	@	1 50
do Mustard do	—	@	1 20
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
SUGAR, ETC.			
Cal. Cube per lb	12	@	—
Partz' Pro. Cube	—	@	12
Circle A crusned	—	@	11¼
Powdered	—	@	11¼
Fine crushed	—	@	12
Granulated	—	@	11½
Golden C	—	@	10½
Hawaiian	9	@	10
Cal. Syrupin kgs	—	@	70
Hawaiian Molasses	25	@	27½
TEA.			
Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant	30	@	42½
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Yng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered hxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55
TOBACCO—Jobbing.			
Bright Navys	50	@	65
Dark do	50	@	55
Paces Tin Foil	—	@	75
Gregory	70	@	—
Dw I Twist	65	@	75
Light Pressed	70	@	80
Hard do	50	@	60
Conn. Wrap'r	40	@	60
Penn. Wrapper	20	@	45
Ohio do	15	@	20
Virgi'a Smok'g	45	@	1 00
Fine ct che'g, gr	85	@	50
Fine cut chewing, huc'ts, ₱ lb	75	@	—
Banner fine cut	—	@	90 00
Cal Smoking	37	@	1 00
TURPENTINE.			
Easteru	51½	@	55

LEATHER.

[WHOLESALE.]

WEDNESDAY M., December 29, 1875.

City Tanned Leather, ₱ lb	22@29
Santa Cruz Leather, ₱ lb	22@28
Conntry Leather, ₱ lb	22@29
Stockton Leather, ₱ lb	25@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 13 Kil., per doz	68 00@ 79 00
Jodot 14 to 19 Kil., per doz	82 00@94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00@ 74 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	63 00@ 67 00
Cornellian Females, 14 to 16 Kil	71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil	58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil	66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil	72 00@ 74 00
Simon, 18 Kil., ₱ doz	61 00@ 63 00
Simon, 20 Kil. ₱ doz	65 00@ 68 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 15
California Kip, ₱ doz	40 00@ 60 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 4 50
Best Jodot Calf Boot Legs, ₱ pair	5 00@ 5 25
Good French Calf Boot Legs, ₱ pair	4 00@ 4 75
French Calf Boot Legs, ₱ pair	4 00@ —
Harness Leather, ₱ lb	24@ 32½
Fair Bridle Leatber, ₱ doz	48 00@ 72 —
Skirting Leather, ₱ lb	33@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	17@ ⅝
Wax Side Leatber, ₱ foot	17@

RETAIL GROCERIES, ETC.

WEDNESDAY M., December 29, 1875.

Butter, Cal. ch'ice	35	@	45
Cheese, lb	18	@	30
Lard, Cal., lb	—	@	18
Flour, ex. fam, bl'd	25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wn. crsh'd	12½	@	13
do lt. brown, lb	8	@	9
Coffee, green, lb	23	@	35
Tea, fine blk, 50, 65, 75	@1		00
Tea, finst Jap, 55, 75, 90	@1		00
Candles, Adnant'e	15	@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powders	1 50	@	2 00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Can'd Oysters, dz	2 00	@	3 50
Syrup, S F. Gol'n	65	@	75
Dried Apples	8	@	10
Dr'd Ger. Prunes	15	@	20
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15
do Peeled	—	@	25
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz. bot	3 00	@	4 50
Whisky, O.B., gal	3 50	@	5 00
Fr. Brandy	4 00	@	8 00

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., December 29, 1875.

POULTRY, GAME.			
Chickens	50	@	1 00
Hens	75	@	88
Eggs, Hens	55	@	60
do Ducks'	—	@	60
do Farallones	—	@	—
Turkeys, ₱ lb	15	@	25
Ducks, each	1 00	@	1 25
Geese, wild, pair	—	@	—
Tame, ₱ pair	3 00	@	4 00
Snipe, ₱ doz	—	@	—
do English	—	@	3 00
Quail, per dozen	—	@	2 00
Prairie Ch'k s, pr	—	@	—
Hares, each	25	@	35
Rabbits, each	15	@	—
Squirrels, ₱ do	—	@	15
Beef, tend, ₱ lb	15	@	18
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	—	@	15
Porter House St'k	—	@	20
Sirloin do	12	@	15
Round do	8	@	10
Pork, rib, etc., lb	12	@	12½
Chops, do, ₱ lb	15	@	—
Veal, ₱ lb	10	@	15
Outlet, do	15	@	25
Mutton-chops, lb	10	@	12
Leg Mutton, ₱ lb	8	@	10
Lamb, ₱ lb	—	@	—
Venison	12	@	20
do dry	20	@	25
Antelope	15	@	20
Tongues, beef	60	@	75
do, do, smoked	75	@	1 00
Tongues, pig, lb	12½	@	—
Bacon, Cal., ₱ lb	16	@	20
Hams, Cal. ₱ lb	16	@	20
FISH, MEATS, ETC			
Flounder, ₱ lb	15	@	35
Salmon, ₱ lb	25	@	35
Smoked	—	@	8
Rock Cod, ₱ lb	15	@	—
Cod Fish, lb	12	@	15
Perch, lb	15	@	—
Lake Big. Trout	—	@	30
Smelts, ₱ lb	10	@	12½
Herring, Sm'kd. do fresh	75	@	—
Tomcod, ₱ lb	—	@	5
Terrapin, ₱ doz	—	@	20
Mackerel, p'k, ea	12½	@	—
Fresh, do lb	—	@

Nurserymen.

[Established 1853.]

SEEDLING STOCKS and PLANTS

FOR NURSERYMEN.

Apple Seedlings, fine.....$10.00 per 1000
Pear Seedlings, fine.....$15.00 per 1000
Plum Seedlings, Mirobolan, Best French stock does not Sucker.....$40.00 per 1000
Cherry Mazzard Seedlings.....$12.00 per 1000
Cherry Mahaleb Seedlings.....$15.00 per 1000
Blue Gums in Variety.....$5.00 to $10.00 per 100

Magnolia Grandiflore—all sizes—large stock.

Golden Arborvitæ.....
Heath-leaved Arborvitæ....
Cratægus Arboria..... ....
Lauristinus..... } Fine Plants—Large Stock.
Swedish and Irish Juniper
Mediterranian Heath.....
Loquat or Japan Plum.....

Oranges and Lemons, large stock, best European, Australian, and Chinese varieties, all grafted, from $12.00 to $18.00 per dozen. **Large Palms, Large Tree Ferns, Large Auricarias,** at special prices, with the usual large stock of Fruit and Ornamental Trees.

BERNARD S. FOX,
San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery St., S. F.

1865. 1875.

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	28	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	20	—	Fertille de Palican	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish to see grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

ROCK'S NURSERIES,

SAN JOSE, CAL.

The attention of Nurserymen and Planters is invited to my large stock of

FRUIT TREES

Of the very best varieties for Market, Shipping and Drying. Also

GRAPEVINES, CURRANTS, GOOSEBERRIES, BLACK BERRIES AND RASPBERRIES. SHADE TREES, EVERGREENS, BLUE GUMS AND SHRUBS. GREEN HOUSE PLANTS, BEDDING PLANTS, ETC.

Send for a Catalogue.

JOHN ROCK, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees, (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.

November, 1875.

SANTA BARBARA NURSERY,

Located seven miles west of Sante Barbara, Cal. Depot, Cor. Montecito and Castilio streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

SAVE $50! WHY PAY $85?

SEWING MACHINES.

REDUCED PRICE, $35.

HOME and HOME SHUTTLE SEWING MACHINES.

Reduced to Live and Let Live Prices.

These Machines are superior to any and all; nice sewers, straight needle, two threads, shuttle, lock-stitch, the simplest and cheapest, and the lightest running first-class Machines in the market. To see is to convince yourselves.

The Hall Treadle for Sewing Machines,

The most important improvement ever made. It saves labor and preserves health. No more diseases and deaths, side or back aches from using Sewing Machines. No teaching required. A child can run it. Always starts the right way. Never goes backwards and breaks things. Can be stopped instantly. With it on your Machine, you can do double the work you can without it. Fifty stitches can be made with one pressure of one foot. It can be applied to any Sewing Machine. Approved by Massachusetts State Board of Health (see Official Report 1872), Massachusetts Medical Society and Massachusetts Charitable Mechanics' Association. The HALL TREADLE is a part of all HOME MACHINES sold by us.

The Hall Treadle Grinding Machine

Must be seen to be appreciated. For a Farmer or Mechanic to see it, is to buy one. It is an indispensable article in every Farm-house, Shop or Hotel.

The Hall Treadle Jig Saw and Boring Machine

Is an accomplishment in every Workshop. The HALL TREADLE is applicable to all machinery requiring foot-power—Sewing Machines, Grindstones, Jig Sews, Turning Lathes, Jewelers' and Dentists' Lathes, etc Send for Circulers.

owbp HALL TREADLE MANUFACT'G CO., 17 New Montgomery St., S. F.

W. R. STRONG, Seedsman, Established 1857. 1876. RONT. WILLIAMSON, Nurserymen, Established 1865.

W. R. STRONG & CO.

SEEDS. TREES.

San Francisco Office, 418 & 420 Clay Street. Sacramento Office, 8 & 10 J Street.
Nursery Grounds, Sacramento County.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, - - - W. R. Strong & Co.
House in San Francisco, - - Strong & Williamson.

P. S. Alfalfa, Chile grown, 7 to 11c; California, 11 to 15c, as per quantity and grade Guaranteed fresh and genuine.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,
P. O. Box, 722. 516 Battery Street.

RIVER BANK NURSERY,

San Jose, Cal.

Established - - - - - 1855.

FRUIT AND ORNAMENTAL TREES in great variety. Choice and Rare Variety of EVERGREENS, SHRUBS, ROSES, BEDDING PLANTS, PALMS, MAGNOLIAS, FERNS, TUBEROSES, GLADIOLAS, Etc., with general collection of Greenhouse Plants, Hanging Baskets, Etc.

Nursery and Greenhouses, corner Berryessa road and 12th street, two blocks from terminus of North Side horse railroad. Address

L. F. SANDERSON,
Nurseryman and Florist, San Jose.

LOS GATOS NURSERIES,

S. Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

BLUE GUM TREES.

400,000 For Sale. Price from $30 to $50 per 1,000. Also 1,000 Cypress trees.

BAILEY & CO.,

Depot, 118 East Twelfth street, Oakland, Alameda county, Cal. Lock Box 80.

200,000 Forest Trees

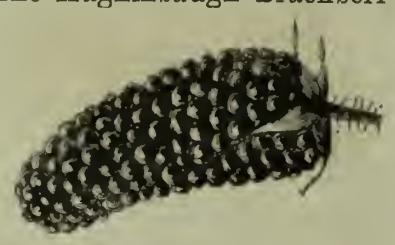
For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS; all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petalnma, Cal.

1,000 000 Blue Gum Trees

At $10 per 1000 in lots of 10,000, or $15 per 1000 in smaller quantities. Address W. A. T. STRATTON, Pacific Forest Tree Nursery, Petaluma, Cal.

The Aughinbaugh Blackberry



This new blackberry is a California production, of large size, firm, and excellent flavor. It ripens from May until August. The last of the crop of berries sold readily at 40 cents per pound when the "Early Wilson" brought 20 cents at the same time. Plants are now ready for transplanting and for sale at my residence on Central avenue, west of Webster street, Alameda, and GEO. F. SILVESTER'S, 317 Washington St., San Francisco.

PRICES:

For one doz., by mail, postpaid	$3 00
Less than one doz., by mail, postpaid, each	50
For 100, forwarding expenses paid by purchaser	15 00
For 1000, forwarding expenses paid by purchaser	100 00

Send your address and receive circular containing particulars FREE.

G. AUGHINBAUGH.

Are the best the world produces. They are planted by a million people in America, and the result is beautiful Flowers and splendid Vegetables. A Priced Catalogue sent free to all who enclose the postage—a 2 cent stamp.

Vick's Floral Guide, Quarterly, 25 cents a year.
Vick's Flower and Vegetable Garden, 35 cents; with cloth covers, 65 cents. Address

JAMES VICK, Rochester, N. Y.

CAMELLIAS.

We offer a large stock of very fine plants at from $33 to $100 per 100. For catalogues of these, as well as of Azaleas, Rhododendrons and Evergreen Trees in great variety, address

R. B. PARSONS & CO.,
Box 99, Flushing, N. Y.

Grapevine Cuttings.

B. Malvasia, Zinfindel, Muscat Alexendrie, Berger, Large White Malege and many others. Price, three to five dollars per thousand.

H. W. CRABB,
Oakville, Napa County, Cal.

FOR SALE—BLUE GUM TREES.

The undersigned has the pleasure of announcing to those contemplating planting largely this season, the nursery stock of the well known Gum Tree Farm, at $15 per thousand, nursery price. The young stock is extensive, ranging in hight from 8 inches to 1½ feet, specially grown for Forest Culture. Address, ISAAC COLLINS, Haywood, Alameda Co., Cal. Nursery situated on Redwood road, 1½ miles from Heywood.

Seedsmen.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,
607 Sansome St., San Francisco.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

FLOWER SEEDS. | Spooner's Prize Flower Seeds

VEGETABLE SEEDS. | Spooner's Boston Market Vegetable Seeds.

The cheapest and best seeds in the market. Send two 3 cent stamps for our illustrated catalogue and see the prices.

W. H. SPOONER, Boston, Mass

GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

---

Commission Merchants.

T. O'CONNOR & CO.,

SEED AND PRODUCE Commission House,

IMPORTERS OF

Seeds and Semi-Tropical Trees Plants and Fruits, Etc.

500,000 Australian Blue Gum at $25 to $40 per M, in boxes; 250,000 Monterey Cypress at $25 to $40 per M, in boxes; also a consignment of Australian Blue Gum Seed, warranted 1874, per steamship *City of Melbourne*, at 75 cents per oz., or $10 per lb.

Navil (or Seedless) Orenge Trees,
Lisbon Lemon Trees,
Passion Fruit-Beering Vine and Seed,
Norfolk Island Pine (Elcuria) Seed or Plants. } Australian.

Orange Trees.—Wilson's Seedlings, Kona, Malta Blood and St. Mikel's.

Chinchapele, Pernambuco and Sweet Acapulco; also Vegetable, Grass, Field and Flower Seeds. Australian and Sicily Lemon Seed in barrels. Orange and Mexican Lime Seed in berrels. For sale by

T. O'CONNOR & CO.,
426 Sansome street, near Clay, S. F.

H. K. CUMMINGS. 1858. H. H. HALSTON. 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-1y

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

RUPTURE.

Use no More Metallic Trusses. No more suffering from iron hoops or steel springs. DR. ROWE'S PATENT ELASTIC TRUSS is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of DR. ROWE'S comfortable elastic appliances; you will never regret it.

ROWE ELASTIC TRUSS CO.,
tf 609 Sacramento Street, S. F.

MYER'S EXCELSIOR GANG PLOW.

Greatest Agricultural Improvement of the Age!!

FARMERS OF CALIFORNIA:

WE HAVE FOR THE FALL OF 1875, A NEW AND VERY MUCH IMPROVED GANG PLOW. THE MATERIALS ARE ALL OF WROUGHT IRON AND STEEL, EXCEPT THE POLE. THE BOTTOMS ARE MADE OF THE VERY BEST CAST STEEL, WITH A HEAVY THICK MOLD BOARD.

BUT OUR GREAT POINT IS

MYERS' PATENT DOVETAIL SHARE,

Which fits in a nice groove, requiring no bolts, and is stronger than any other style of Share. It can be taken off when dull, and replaced with a sharp one without turning the Plow over, or losing time!!

We guarantee a perfect fit in duplicating each and every part that makes up the Plow, and when Mold Board, Land Side, or Share is worn out, or by accident gets broken, we can furnish duplicates and warrant every piece to be an exact fit. Warranted to work in all kinds of soil, and to be of lighter draft than any other Plow in use. ☞ **WE ONLY ASK A TRIAL!!!**

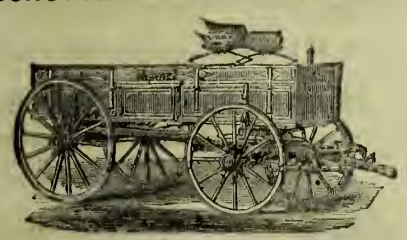
LINFORTH, KELLOGG & CO.,

AGRICULTURAL IMPLEMENTS,

Nos. 3 and 5 Front Street, - - - - SAN FRANCISCO, CAL.

THE CELEBRATED

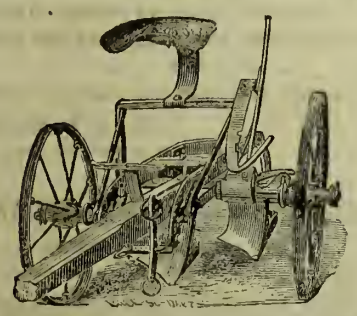
SCHUTTLER FARM AND FREIGHT



WAGON.

Superior in Strength, Durability and Lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

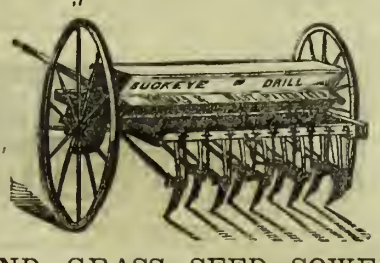
THE DEERE GANG PLOW.



The Lightest Draft Gang Plow Ever Made.

First Premiums at Illinois, California and Iowa State trials, make it to the farmer the most valuable invention of the age. Two thousand farmers, during its first and second seasons have used and pronounced it "the best they ever saw."

Buckeye Force Feed Drill

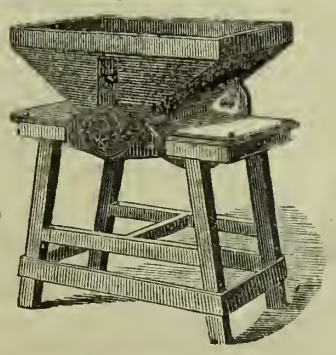


AND GRASS SEED SOWER.

It is a positive Force Feed, which can he regulated for any desired quantity, without any change of gears and without carrying around a lot of extra gears. We guarantee it to be superior to any Feed Drill made.

CHALLENGE FEED MILL.

The Fastest Grinding, the Easiest Running, the Simplest.



The Cheapest Portable Mill Manufactured.

We have purchased the sole right to manufacture these Celebrated Feed Mills, for the Pacific Coast. They are the only mill yet invented which gives perfect satisfaction. They will grind all kinds of grain into feed; Barley, Corn, Oats, etc, however green, wet or dry, or whatever may he its condition, with ease and speed, without heating the feed or doing other damage. Will also grind Salt and Soft Rock.

Marcus C. Hawley & Co., Sole Agents,

108 & 110 Front Street, San Francisco. Cor. J and Second Sts., Sacramento.

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO, CAL.,

MANUFACTURERS OF

LINSEED, CASTOR AND COCOA NUT OILS,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our Works.

Office—3 and 5 Front Street.

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow, which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow. Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..$85 00	Extra Shares—No. 1..... $3 00	Landsides for single Plows..	$2 50
No. 2 " " " " .. 90 00	" " No. 2..... 3 50	" " Gang Plows...	1 50

All kinds of casting done on short notice.

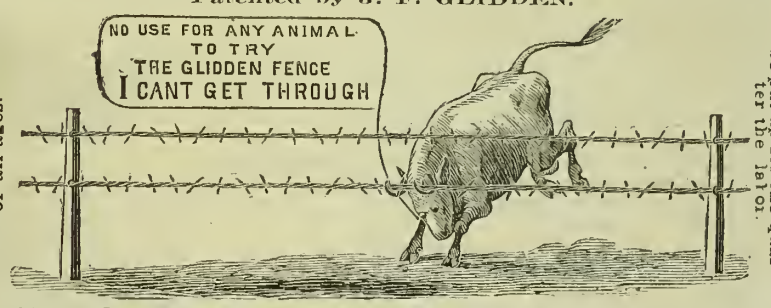
San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can he put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞ Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

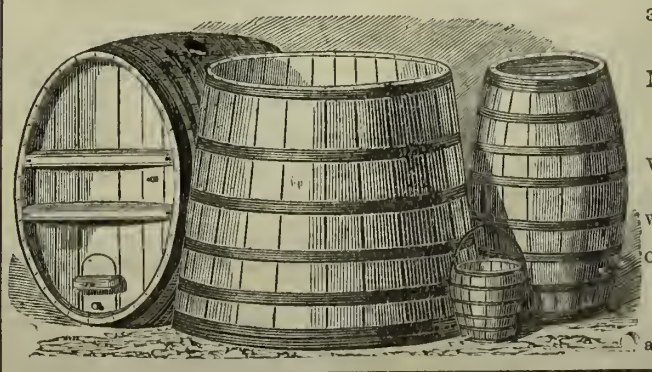
GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

El Dorado, El Dorado Co., Cal

CALIFORNIA WINE COOPERAGE AND MILL CO



30, 32, 34, 36, 38 & 40 Spear Street,

M. FULDA & SONS

Proprietors.

Manufacturers of

WATER TANKS, SHIP TANKS, MINING WORK,

WINE, BEER AND LIQUOR CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed and Dried Before or After Manufacture at Reasonable Rates.

Sawing, Planing, etc. at Short Notice. eowhp

THE PACIFIC RURAL PRESS has a larger Circulation than any other Pacific Coast Weekly, independent of a daily issue.

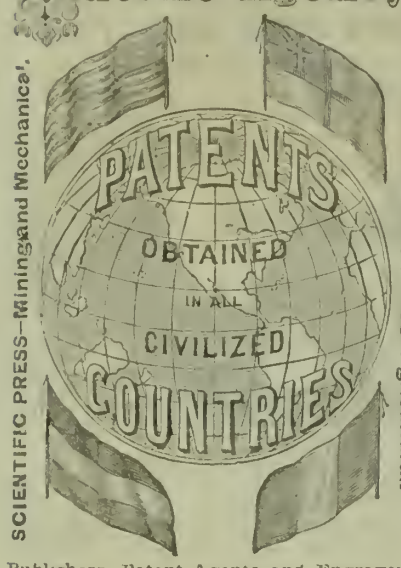
A REAL CONVENIENCE.—DEWEY & Co: Please send me the RURAL PRESS. It is a real convenience and I cannot do without it. Enclosed you will find five dollars. Fraternally, B. F. E. K.

Anaheim, Cal., October 12, 1874.

DEWEY & CO'S

SCIENTIFIC PRESS

Patent Agency.



Publishers, Patent Agents and Engravers.

No. 224 Sansome Street San Francisco Cal

To the Readers of the Pacific Rural Press!

We wish you to speak to all who you think would be pleased with our paper, and tell them of its merits, and of the advantage it has been to you and your acquaintances.

We need a larger subscription list, which will enable us to keep up a good paper and to improve it, and become still more useful to you and to our whole coast.

Hand your paper to others when read—if you do not file it. Send it to your friends by mail. Send to our office for back numbers, which will be sent free as samples for you to distribute.

The attention of meetings of Granges and Clubs called to articles of local or special interest, would prove of mutual benefit.

Write for the columns of the RURAL PRESS. Send us friendly counsel, business hints, and all information of interest to us and our readers.

SUBSCRIPTION, $4 per annum. Old subscribers sending us a new subscription with a renewal of their own, may remit $7 for the two.

Remit by P. O. Order or registered letter to

DEWEY & CO.,

Office, No. 224 Sansome St., S. F.

RENEW YOUR SUBSCRIPTIONS.—With encouraging rains, good crop prospects, a rapidly increasing population, public improvements and new manufacturing and industrial enterprises springing up throughout the coast, we believe the ensuing year will be one of such progress and importance that no subscriber of the PRESS can afford to miss the record of events and discoveries which will be reported in the successive issues of this journal.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
A. C. CHAMPION—Tulare, Fresno and Inyo Counties.
JOHN ROSTRON—California.
A. C. KNOX, California.
G. W. MCGREW—Santa Clara county.
D. J. JAMES—Australian Colonies.
CHAS. T. BELL—Montana, Utah, Idaho and Nevada.

CAMPO, SAN DIEGO CO., CAL., July 3d, 1874.

MESSRS. DEWEY & CO.—*Gentlemen:* To-day I received the patent and other papers of my animal trap, that you so successfully worked through the patent office for me, for which please accept my best wishes. The chances are that I will have another application for you to make for me before long. I am well satisfied with your manner of doing business, and I think inventors of this coast stand in their own light when they do not put their business into your hands.

I remain Yours truly, A. M. GASS.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur *at any time* please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: Jl 4 76, or 4|176.

THOUGHTLESSNESS. Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

A Card.

Watsonville, Dec. 6, 1875.

To C. P. Hoag, Gen. Agent, 118 Beale street, S. F.,

Dear Sir.—We have had the Eclipse windmills in use several months. They have worked to our entire satisfaction, running in the lightest breeze, and their self-regulating apparatus working to perfection in the severest gales. We take pleasure in recommending the Eclipse to all desiring windmills.

Yours truly,

Otto Stoesser, E. S. Peck, J. M. Rodgers and E. J. Martin.

Reasons why the Eclipse Windmills should be Preferred.

1.—It has been tested eight years in almost every State in the Union.

2.—It is the most simple in principle, strongest in construction and possesses more power than other mills.

3.—It is noiseless in operation, beautiful in design, and well finished. Has no loose joint to get out of order.

4.—Has hardly any friction and will run in light winds. It is a perfect self-regulator.

5.—It is sanctioned and adopted by the leading railroads for their water stations, and pronounced by railroad engineers to be built upon true mechanical principles.

6.—The entire mill is guaranteed, and any casting or portion of a mill breaking from defect in material or workmanship will be replaced free of charge without delay.

7.—The rims are straight, instead of steamed or bent, as in other wheels, and the entire mill is durable.

8.—The cost is less than others when the actual power, durability and safety are considered.

Write me or call.

CHAS. P. HOAG,

General Agent for Pacific Coast, 118 Beale street, between Mission and Howard, San Francisco, Cal.

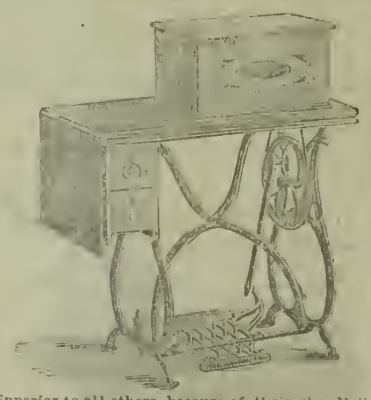
TRAVELING

AGENTS

WANTED

For this paper. Experienced canvassers can make excellent wages. None but intelligent persons of good recommendation need apply.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY.

EMDEN GEESE, Pekin Ducks.

PIGEONS. RABBITS.

BRONZE TURKEYS.

PRICE-LIST For 1876 Now Ready.

FERRETS.

ALSO —

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

BOWDITCH'S FLOWERS

My Illustrated Floral Catalogue for 1876 is now ready. Price 10 Cents, less than half the cost. WILLIAM E. BOWDITCH, 615 Warren St., Boston, Mass.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

*,*My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

THE BEE-KEEPERS' MAGAZINE.

An *illustrated* monthly Journal of 32 octavo pages devoted exclusively to BEE-CULTURE. Edited by ALBERT J. KING, containing monthly contributions from Mrs. E. S. TUPPER, and other eminent Bee-Keepers in both EUROPE and AMERICA. A large space is devoted to BEGINNERS giving useful information *just when it is needed* throughout the year. TERMS $1.50 per year. We will send the MAGAZINE 4 MONTHS ON TRIAL and *include* a 64-page pamphlet, (price 50 cts.) containing a beautiful life-like Chromo of HONEY-PLANTS and ITALIAN BEES in their natural colors, Prize Essay by Mrs. TUPPER, Queen Rearing by M. QUINBY, Instructions for Beginners, etc. all for 50 cts. Address

KING & SLOCUM,

61 Hudson Street, New York.

MAILED FREE

FLORAL GUIDE

Contains over 1,200 varieties Vegetable and Flower Seeds, COLORED PLATES, Elegant wood-cuts of vegetables and flowers. Handsomest Guide Published! ☞Send for it.

DETROIT SEED CO., Detroit, Mich.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

CAMELLIAS. A large stock of very fine plants at rates from $3 to $100 per 100 according size and kinds. Also

Rhododendrons, Azaleas and Roses.

PURPLE BEECH and other RARE and ORNAMENTAL TREES.

ROSES and the Best FLOWERING SHRUBS.

CLEMATIS OF MANY NEW AND FINE SORTS.

Catalogues Free. Address

R. B. PARSONS & CO.,

[Box 99,] Flushing, New York.

CALVERT'S

CARBOLIC

SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

10 CENTS sent to BRIGGS & BRO., Seedsmen, Rochester, N.Y., or Chicago, Ill., secures postage paid, the January Floral Work. Free to customers. See it! Save Money and Failure on Seeds!

ALL ABOUT GARDENING

For Home Use and for Market, in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

FARMERS write for your paper.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,

SEEDSMAN,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord J. REGENSBUROER.....S. F.
J. VOLLMAR .....S. F. A. W. THOMPSON.Petaluma
J. D. BLANCHAR.....Napa F. A. KIMBALL....San Diego
C. MITCHELL GRANT.....I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street. S. F.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochine, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

The Scandinavian and German Immigration and Employment Office,

610 Merchant Street, near City Hall, S. F.

Since July, 1875, consolidated with the old California Labor Exchange, established in 1868. Located in the business center of San Francisco, with agents in the East and the mother countries of Europe, and mastering all the principal European languages, we have unsurpassed facilities for complying with any demand on us for male and female help in any capacity and of any nationality, at reasonable terms. A lady attends to the female department. Scandinavian, German, French and American help our specialty. We can furnish farmers with any number of Scandinavian and German help, if timely notice is given. Hotels and private families supplied with French and German waiters. When female help is wanted in the country, the remittance of the passage money in advance is indispensable. Your orders will be filled promptly and conscientiously if addressed to

V. de BRETTEVILLE & CO.,

[P. O. Box 1436.] San Francisco, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, JANUARY 8, 1876. [Number 2.

Mountain Lands.

Mr. Luttrell's bill in Congress and Mr. Ferral's move in the Legislature of this State seem to very fully embody the popular feeling on the subject of the proper mode of opening up the mountain lands of California to permanent occupation by *bona fide* settlers. The State Grange, P. of H., also, at their late meeting, endorsed the proposition so far as to allow actual settlers the privilege of locating 640 acres of such lands for homesteads and for grazing purposes.

It is certain that under the present laws these lands can never be brought into market so that the title can pass to any large extent. They consist chiefly of broken ranges, thinly timbered in the foothill lands, sparingly watered and wooded everywhere, and producing only light crops of native grasses. There are but few locations where the settler can select a quarter section, the chief part of which shall be suitable for cultivation. By far the larger portion is suitable only for grazing purposes. But if these lands were surveyed and set off in tracts of 640 acres or more—in no case less—and offered to settlers at a reduced price, the theory is that every tract would contain some little valley, with springs or rivulets, where the settler might make his home, cultivate a little patch for a garden, raise a few roots or perhaps cut a little grass to tide his stock over the few weeks that intervene between the destruction of feed by the early rains and the springing up of the new grass, which appears soon after, and thus utilize the great bulk of his claim for grazing purposes.

On the contrary if they are segregated into 160 acre tracts, the section which contains the valley and water privilege will be taken up, while the 480 acres will be worthless to any other person, and will be left unsold, and consequently unimproved to any great extent, for the reason that no one will pay the price required for a title. The consequences will be—loss to the Government, imperfect development of the agricultural resources of the entire district and constant differences between neighbors who will each strive to get the advantage of the other in their efforts to use the unsold tracts which lie between their respective properties.

Four-fifths of the land at present unsurveyed in the foothills is now enclosed with rough fences by parties holding the small watering places, without yielding any revenue to the Government; while even the best portions of such lands are but imperfectly utilized by reason of the uncertainty of the tenure.

Mr. Luttrell's plan of throwing them open to purchase in tracts of 640 acres (or more if necessary) at the minimum price of fifty cents an acre, would soon result in the establishment of numerous well built homesteads and well cultivated tracts of land, on which vegetables and to some extent cereals, also vines, fruit and timber trees might be successfully grown, but the outlay for which cannot be afforded under either the present minimum price of $1.50 per acre, or the uncertain tenure of a settler's title when the future contingency of legislation is uncertain.

If the law making power had set itself at work to devise some way to prevent a proper development of the foothill lands no more perfect plan could be devised for such a purpose than that now in existence. Some legislation is an imperative necessity in this direction. The only questions in that regard should be that of securing the benefit to actual settlers, the proper extent of the tracts into which the land should be segregated (from 640 to 1,280 being the extremes named), and the price per acre—fifty cents being the minimum figure which has been suggested. Of course no legislation should be made which would interfere with the rights of miners on the mineral sections.

The adoption by Congress of some plan of this kind will no doubt greatly facilitate the settlement of these lands, which constitute a very extensive area, and the permanent occupation and improvement of which would create a large amount of taxable property to aid in supporting the fast increasing expenses of our State Government.

The Mining Debris Question.

We print in another column this week an official report of the mass meeting of farmers held recently in Marysville, to consider the matter of the damages done to the farms and rivers by the deposition of debris from the mines. The question is one which by the greatness of the interests involved demands careful study and just action. It is sound, as a general principle, that the industries of men should be so adjusted that they may advance evenly and without working hardship and detriment to each other. The way to effect this adjustment is often difficult to determine. No action should be urged hastily or without careful weighing of all the considerations involved. The study and research necessary to wise action should not be shrunk from, because upon wisdom in matters of this kind depends the symmetry and endurance of our industrial growth. We bespeak a careful perusal of the report of the meeting which we print elsewhere, confident that from a fullness of light wise action will prevail.

GOLDEN-WINGED WOODPECKER.

Grain Yield.

Messrs. Editors:—It is said that "figures will not lie," but mine are a notable exception. Referring to my data, I find that in your issue of the 25th, under head of "Grain in Potter Valley," I should have said—*threshed* grain, 43,700 bushels, of which 7,000 bushels were oats and barley, the balance wheat.

Of grain "hogged," to use the farmer's torm for grain harvested by porkers, full 5,000 bushels is tho estimate, of which the most was wheat—total, 48,700 bushels small grains. I notice that tho *Resources of California* gives 86,573 bushels as the total wheat product of Mendocino county. Probably Ukiah, which sows a larger area to small grains than Potter, with Potter and the small valleys between them, annually harvest a larger wheat crop than is here credited to the whole county; ditto of barley and oats. C. I. H. N.

Pomo, Cal., Dec. 28th.

Sir Anthony Rothschild is dead.

Golden-Winged Wood-Pecker.

Our illustration this week shows the golden-winged wood-pecker. It is an inhabitant of all parts of the United States and of Canada. At all times animated and happy, these birds are peculiarly so at the love-making season of early spring, when their voices may be heard in the utterance of joyous sounds, and when the coy female is pursued by several males until she has indicated her preference, which produces no strife, as the rejected at once fly off elsewhere to woo. The song of the male, at this season, is not unlike a jovial laugh, nor by any means unmusical. As soon as mated, each pair immediately proceeds to excavate the trunk of a tree, and fashion a place for themselves and their young. The hole is at first made horizontal, and then downward about six or eight inches. They caress each other on the branches, climb about and around the tree with apparent delight, rattle with their bills against the tops of the dead branches, chase away the red-heads, and feed abundantly upon ants, beetles and larvæ. Before two weeks have passed, from four to six semi-transparent eggs are laid. Two broods are thus produced in each season.

This species is scarcely less happy when domesticated in confinement than when enjoying the utmost freedom, feeding well, and finding amusement in everything, but especially in the destruction of wooden furniture, for which it has great capabilities.

The flight of this bird is strong and prolonged, being performed in a straighter manner than that of any other wood-pecker, though it propels itself by numerous beats of the wings, with short intervals of sailing in an almost horizontal direction. The migrations, which are but partial, are performed in the night, and are only known by the note it utters and the whistlings of its wings. The movements of one of them upon the side of a tree, or upon the ground, are very quick, though it only alights upon the earth to pick up a beetle, caterpillar, or other insect, or perhaps a grain of corn. Apples, cherries, grapes, persimmons, raspberries, dogwood berries, and even whortleberries and poke-berries afford it food at certain seasons; but the farmer's grain is often its feed despite of traps and scarecrows, though the farmer often makes his meal of it.

Mr. Audubon says: "The young of this species frequently have the whole upper part of the head tinged with red, which, at the approach of winter, disappears, when merely a circular line of that color is to be observed on the hind part, becoming of a rich vermillion tint. The hairy, downy and red-cockaded wood-peckers are subject to the same extraordinary changes, which, as far as I know, never reappear at any future period of their lives." This happens to both sexes. He further says: "This occurrence is the more worthy of notice, as it is exhibited on all the species of the genus, on the heads of which, when in full plumage, a very narrow line exists.

Map of California.—Mr. E. M. Sleator, agen for Whitney's geological survey map of California, informs us that the balance of the edition of tho map is to be closed out at the reduced price of $3.50 per copy. The map is mounted on cloth and rollers, and is admirable for hanging for constant reference. The work is complete with recent lino divisions and improvements, and is certainly offered at reasonable rates.

Art Reception.—We have received cards of invitation to the fourteenth reception of the San Francisco art association, to be held at No. 313 Pine St., Thursday evening, January 6th. The receptions of this association fitly represent the art progress of the coast, and are praiseworthy.

A Liverpool company is negotiating with the Marquis of Bute for the establishment of a steamship line between Cardiff and New York.

James Anthony, late one of the proprietors of the Sacramento *Union*, died of appoplexy in this city on Monday last.

Stock Breeders.

Camels in Nevada.

A correspondent of the *Live Stock Journal* gives some interesting items concerning the success of the camel breeding experiment in Nevada. We quote as follows:

At Ogden we met eight camels, *en route* from their birthplace to the Zoological Gardens in Philadelphia. They were in charge of Mr. Frank J. Thompson, superintendent of the gardens.

The breeding of camels was begun in Texas, twenty years ago, by an importation of the War Department. From Texas the camels were taken to Carson valley, Nevada. The first importation were Indian camels; the second were the two-humped camels of China. These two varieties cross well together. The two-humped are preferable, as they are more docile and kindly to handle than the single-humped.

The breeding of the camels has been a success, and, as pack animals, has been profitable. They subsist upon the sage brush and less desirable herbage of this rugged, barren region, and attain such size as is unknown in any other country. They were the largest we ever saw, and were selected with reference to shipping in the cars. The largest ones could not be put into the ordinary stock cars as used on the Pacific railroad. The man who owns and breeds them is a Swiss, and wants to sell out, and return to his native land. If he does not, he intends to remove to Arizona with them, for the reason that camels as pack animals frighten the teams of "freighters" and make trouble for him continually. They breed once in two years; and in this lot there was one cow camel with her year old calf at her side, taking his dinner like any other great, saucy calf. The most of these were two and three years old. The five year olds were, as stated, smallish selections from this herd, yet their humps were very near the roof of the car, and their odd-looking heads had to be kept in a very cramped position.

It is a matter of wonder and congratulation that the breeding of superior camels is added to the live stock interests of the country. From this camel-breeding establishment can be supplied all the show animals needed for the world, as they cost no more to rear than mules, and are far better as pack animals. The rigors of winter, and the heat of summer, are alike favorable to their growth and prosperity. Nevada, though, is a fine stock growing region for cattle, horses or sheep, as well.

Poultry Yard.

Special Contributor—M. Eyre, Napa.

Cures for Ails.

In the Rural Press of December 18th L. M. Smith asks for cures of crop bound fowls and for turkeys troubled with the diarrhea. The following are the remedies:

Crop Bound Fowls.—Pour a small quantity of oil or warm water down the throat, then gently knead the crop until the mass inside is softened, when part of it may be withdrawn—this may take nearly an hour. This proving ineffectual, with a sharp knife cut a slit in the crop; take out the contents with a small spoon; wash inside of crop with lukewarm water; sew up with silk, tying each stitch separately and being careful to stitch the inside skin first, then the outside. Before sewing up, pare the nail and grease the forefinger and ascertain if anything be in the opening leading out of the crop.

I have already given the cure for the disease afflicting Mr. Smith's brouze turkey, in last year's Press. As soon as green (or yellow) droppings are observed, confine the fowl in *dry* quarters, give two or three tablespoonfuls of alum water (½ lb. alum to 3 qts. water) morning and evening—feed soft and stimulating food. If too far gone to eat, beat up a raw egg with alum water and feed. Use a funnel and a tube, the latter being pushed down into the crop—but it may be fed with a spoon.

Napa, Cal. M. Eyre, Jr.

Magnitude of the Poultry Interest in the United States.

Some idea of the extent to which thoroughbred, or as it is commonly called, "fancy poultry," occupies the attention of breeders in the Eastern States, may be gained from the prize list of the exhibition to be held in Chicago in this month. Over *nine thousand dollars in cash*, besides diplomas, will be awarded in premiums. This amount is but a tithe of the total to be awarded by the various State and other poultry associations during the winter. In California poultry pays nearly double the amount which can be realized from it in the East under the most favorable circumstances, and in this State high class poultry should receive far more consideration at the hands of the managers of our fairs. All of us who raise really fine fowls are deterred from sending them to fairs, not so much because the premiums offered would not pay one-tenth the cost, but because we cannot submit our fowls to be passed upon by incompetent judges. In France the amount realized for poultry *far exceeds the total value of our wheat crop in California*, and still we have here a climate and other advantages for rearing fowls surpassing those of France. There is no farmer in California who should not realize at least $300 to $400 a year from his poultry. This can be done by selecting a good breed, building them very cheap houses and giving them even one-half the attention bestowed on hogs, sheep or cattle. Why not devote as much thought, time, care and expense to chickens as to sheep, when the former will yield *ten times* as much clear profit? My chicken houses cost me from $6 to $7 each. (I have already described them in the Press, and the number of fowls to be kept in each, where to locate them, etc.) Farmers make a very great mistake in neglecting poultry; $300 even is a nice thing to handle at the end of the year, when gained so easily, and yet nine out of ten absolutely throw this $300 away, or take no means to obtain it. M. Eyre, Jr.

Napa, Cal.

Sheep and Wool.

The Big Fleece.

It appears that our Eastern friends have been doing their best to "scour" down the "big fleece" which was sent East from this State nearly two years ago. In the latest issue of the *Live Stock Journal* we find the following interesting account of their operations:

It has been so long since the big California fleece was spoken of in these columns, that it may have passed from the minds of some of the readers of the *Journal*. This fleece, as previously noted, from a French merino ram, the property of Mrs. Robert Blacow, of California, was about sixteen months' growth, and weighed, unwashed, 51½ pounds, as certified by parties present when it was taken from the sheep. So unusual was the weight, that the announcement attracted the attention of growers all over the country, and grave doubts were freely expressed as to the possibility of a single fleece weighing so much. The proprietors of this journal secured the fleece, and submitted it to the Illinois Wool Growers' Association, at its meeting in September, 1874. By the association it was referred to a committee of practical breeders, who proceeded to unroll it for the inspection of the convention. It was taken in charge by the committee, under instruction to have it properly scoured, and the result reported to the association. At the annual meeting for 1875, the following report was submitted:

Your committee appointed to cleanse and report upon the California fleece, beg to report: The weight of fleece before scouring was fifty pounds. It was put through two sieges. The first reduced weight to thirteen and one-half pounds. It was not clean. We ordered the second, and now it is well scoured. The present weight is just twelve pounds; yet the committee believe there are two pounds of burs in it now. The appearance of the wool is much coarser than before scouring, and is very uneven—not in any way a desirable wool to raise. We do not recommend any flock-master to breed from such stock, let his flock be fine or coarse. The wool, when free of burs, not worth over fifty-five cents a pound in a clean state, while good Merino wool would be worth eighty-five cents. The cost of keep is according to weight of carcass. The ram that cut this fleece is very large for a French ram—supposed by those who have seen him to weigh near 300 pounds. His fleece, when clean, say ten pounds, at fifty-five cents per pound, is worth $5.50. An American Merino lamb's fleece scoured eight pounds, at the same place—carcass, 186 pounds. This, at eighty-five cents per pound, is $6 80—giving a preference to the latter of $1.30 in fleece alone. Yet there is more difference in the keeping, and that is an object here, but not so much in California.

(Signed) Daniel Kelley, Chairman.

Mr. Kelley stated, when submitting the report, that he had been unable to get together the committee appointed by the association, and been compelled to call in the assistance of Mr. Jonathan Tefft, of Du Page county, Illinois, who had with himself signed the report.

It is to be regretted that the committee were not more careful in guarding against a show of the partiality that Illinois breeders are known to entertain in favor of the American or improved Spanish Merino over his French cousin. While we have no doubt the committee was perfectly honest in its conclusions, it will find that the wording of the report will prove a bid for criticism that some friend of the French Merino is sure to accept.

From a pretty careful examination of the fleece before scouring, we are of the opinion that the committee places the weight of burs too high, one pound being probably an extreme estimate.

We have requested samples of the fleece before and after scouring—both from the burriest and cleanest portions—and when these are received we may refer to the subject again.

It is proper to state that when the fleece was received by us it weighed 51¼ pounds, as reported, and the difference between that weight and the weight reported by the committee before scouring (50 pounds) is due to the removal of samples; about eleven ounces of the very best wool having been taken out by ourselves before surrendering the fleece to the committee, and other samples were removed previously.

The shrinkage shown by the report of the committee is seventy-six per cent. of the gross weight; and in this connection it may not be uninteresting to reprodnce from the last issue of the *Journal* the following report of the results of the nine rams' fleeces scoured under the supervision of the Wisconsin State agricultural society, prefaced by the remark that in all probability the Wisconsin scourings may not have been so rigorously executed:

STATEMENT OF SHEARING AND SCOURING.

No.	Weight of Carcass.	Weight of Fleece.	Weight of Cleansed Wool.	Percentage of Loss in Cleansing.
1	133 lbs.	24 lbs.	5 lbs. 5 oz.	.7786
2	107½ "	21¾ "	6 " 1 "	.7212
3*	126 "	17 "	5 " 12 "	.6617
4	125½ "	22 "	6 " 12 "	.6931
5†	127 "	19½ "	6 " 7 "	.6726
6†	148½ "	21½ "	7 " 5 "	.6559
7*	82 "	12 "	4 " 13 "	.5937
8	114 "	21 "	4 " 15 "	.7618
9	125½ "	19½ "	6 " 5 "	.6763

The percentage of loss in each case was expressed in common fractions in the copy received, and we have recalculated it, stating it in decimal form.

A Machine for Darning Stockings.

The *Scientific American* thus describes the latest Yankee notion: "Imagine, ye mothers of large families, who ruefully contemplate dilapidated socks by the dozen, after the week's washing, with visions of strained eyes and tired backs floating across your minds; imagine a little apparatus infinitely more simple than the sewing machine, which repairs the hugest darn in much less time than we can describe the operation, and far more neatly than you can do it with all your years of practice. This is what it is. Two small plates, one stationary and the other movable, are placed one above the other. The faces are corrugated, and between them the "holy" portion of the stocking is laid. Twelve long eye pointed needles are arranged side by side in a frame, which last is carried forward so that the needles penetrate opposite edges of the hole, passing in the corrugations between the plates. Hinged just in front of the plate is an upright bar, and on this is a crosspiece carrying twelve knobs. The yarn is secured to an end knob, and then, with a bit of flat wire, pushed through the needle eyes. Then the loop between each needle is caught by the hand and hooked over the opposite knob, so that each needle carries really two threads. Now the needles are carried back to their first position, and, in so doing, draw the threads, which slip off the knobs through the edges of the fabric. A little push forward again brings the sharp rear edges of the needle eye against the threads, cutting all at once. This is repeated until the darn is finished, and beautifully finished it is. The inventor is Mr. O. S. Hosmer of Boston, and we predict for him the blessings of the entire feminine community. The cost of the machine is but ten dollars."

Practical Spiritualism.—Dr. E. P. Miller, an intelligent physician of New York, has become an avowed and ardent advocate of the "spirituality" of the Eddy tricksters of Vermont. The doctor is so certain of the heavenly power of one of the Eddy female performers that he has publicly offered a challenge or test exhibition, under a wager of $5,000, that her "manifestations" are genuine, and agrees to leave the matter to the decision of a committee of twelve persons, to be mutually chosen by himself and the acceptor of the challenge. Mr. W. Irving Bishop has accepted the challenge, undertakes to prove that the woman is a fraud, and further, agrees to reproduce all the "materializations" and "manifestations" that she may produce, without any spiritual assistance whatever. He says he has been to Vermont and learned the art completely. He suggests that $5,000 shall be deposited by each party, the winner to donate that amount to some designated charitable institution. The result of the contest, if it comes off, will be interesting, however it may eventuate.

A Friend of the "Rural."—Messrs. Editors:—You proposed in your last issue to send us sample copies for distribution; I thought best to send you a list of names that you might send them direct from the office. I was in Del Norte county last summer, and I will send you a list of the most prominent farmers and dairymen, some of whom I know will subscribe if they have not already done so since I was there. I have spoken a good word for the Rural wherever I have traveled and will continue to do so, for I am proud of our paper. I have a store of information from the northern counties and Oregon suitable for its pages, useful, also, for the immigrant, if it were put in shape for print. There are, also, many items from our valley (Napa,) that ought to find a place in the columns of the Rural, and which I will forward soon. J. M.

St. Helena, Cal.

Sheep Corral.—Messrs. Editors:—Will some of the readers of the Rural furnish a description of a good movable sheep corral, suitable for a region infested by coyotes and also subject to very heavy winds, and oblige

A Subscriber.

Seattle, W. T., Dec. 21st, 1875.

Softening and Toughening Wood.—If blocks of wood intended to be used for cutting veneers are first boiled or steamed in a solution of ammonia and borax, they will not only become soft and easy to cut, but the veneers formed from them will retain their flexibility for an indefinite length of time.

Useful Information.

A Novel Device.

In Northern cities, where the cold is severe, serious annoyance and no little danger often occurs from the freezing of water pipes. The *Scientific American* utters the following word of caution, and describes a very ingenious device for meeting such emergencies:

When a pipe from the street freezes, the range fire should be at once extinguished, as otherwise the water back will either blow up or be burnt out; in the former case serious damage is possible. Last winter the plumbers dug up the streets, and built fires over the supply pipes, and went through other operations, which generally resulted in a bill of from eighty to one hundred dollars. At the present time, if an invention which we recently examined proves as useful as appearances indicate, the cost of such proceedings will be greatly reduced. The apparatus is a small steam boiler, heated by a pan of charcoal beneath it. The hot water—not steam, as in this machine a constant supply of water against the ice is found to thaw the same quicker, paradoxical as the fact may appear—is forced into a small rubber tube, the end of which has a metallic tip, and around which stout copper wire is spirally wound. This wire is held in a coil in a rotating wire cage, and freely unwinds as it is pushed into the pipe. When the end meets the ice, the pushing by hand is stopped, but is continued by an ingenious spring arrangement. By the spiral wire the tube is literally screwed into the ice, which is softened and melted before it by the continual stream of hot water issuing from the end of the pipe.

We might add that there is still an excellent field for invention in other devices of the same description; and at the same time we might suggest, to inventors already in possession of similar patented apparatus, that now is the the time to bring them to the notice of the people.

The Origin of Mahogany Furniture.—The facts regarding the first introduction of mahogany as material for furniture, though long known, are not the less interesting: A physician of the name of Gibbons, who resided in London, received in 1724 a present of some mahogany planks from his brother, a West India captain. Dr. Gibbons was then building a house, and he desired his carpenter to work up the wood. The carpenter had no tool hard enough to touch it; so the planks were laid aside. The doctor's wife, after the house was finished, wanted a candle box, and the mahogany was again thought of. A cabinet maker of the name of Wollaston was applied to; and he also complained that his tools were too soft. But he persevered, and the candle box was at length completed—after a rude fashion, no doubt. The candle box was so much admired, that the physician resolved to have a mahogany bureau; and when the bureau was finished, all the people of fashion came to see it. The cabinet maker procured more planks, and made a fortune by the numerous customers he obtained. From that time the use of mahogany furniture went forward among the luxuries; and the drawers and bureaus of walnut tree and pear tree were gradually superseded in the houses of the rich.

Ebonite.—The use of ebonite, one of the newer preparations of india rubber, is constantly increasing, on account of its better applicability to many purposes in the arts than its near ally, vulcanite. The two substances are quite similar, being composed of india rubber and sulphur, with some preparation of gutta percha, shellac, asphalte, graphite, etc., although these latter are not essential. In vulcanite the amount of rubber does not exceed twenty to thirty per cent., whereas in ebonite the percentage of sulphur may reach as high as sixty. An increased temperature is also required for its preparation. The approved formula consists in mixing together one hundred parts of rubber, forty-five of sulphur and ten of gutta percha, with sufficient heat to facilitate the combustion. In manufacture, a sufficient quantity of this mixture is placed in a mold of a desired shape, and of such material as will not be affected by the sulphur contained in the mass. It is then exposed to heat of about 315° and a pressure of about twelve pounds to the square inch for two hours. This is done most readily by placing the mold in a steam pan, where the requisite pressure and temperature can easily be kept up. When cold, the ebonite is removed from the mold and finished and polished in the usual manner.

A new method of warming first-class carriages in express trains has been adopted in Bavaria. A special van is attached to the train, and contains a powerful "calorifere," and the heated air is conveyed to all the carriages of the train by means of india rubber tubes. The experiment with first-class carriages is reported upon so favorably that the authorities have determined to apply it to all the carriages on the Bavarian lines, and it is expected that it will soon be adopted on all the German railways.

Rosin.—Common rosin, the non-volatile portion of crude turpentine, was originally termed "colophony," from Colophon, in Ionia, where rosin was first produced by the ancient Greeks. It is sometimes so called in the present age.

Agriculture in the Public Schools.

[By Professor Isaac Kinley.]

We can best perform that which we best understand. Knowledge and skill should be united in the same person. It is as important that the mind be familiar with mental processes as that the hand be skilled in manual performances. In every system of mental cultnre, the pupil should not only be taught the truth; he should be able to repeat also the logical processes by which the truth has been established. So in the work of practical life; it is not enough that we know the fact, we should know also the reason. It is not enough that we be familiar with daily phenomena, we should know also their causes and consequences. It is as important to the agriculturist that he understand the philosophy of the various operations on the farm, and the causes of the natural phenomena there exhibited, as it is to the mathematician that he be familiar with the principles from which have been deduced his theorems and formularies. In either case, ignorance produces only routine, not likely to be followed with eminent results.

I agree that much has already been done for the education of the whole people. Popular education is, indeed, the distinguisbing acbievement of modern civilization. It is the patriot's trust for the permanency of free institutions. It is the philanthropist's hope for the future well-being of the race. Of all the inventions of the ages that of universal education is the graudest in its conceptiou and promises the most varied and beneficent results. It marks at once the era of free governments, the moral development and the physical well-being of the race.

With nations, as with individuals, there is always a better beyond—a higher and still higher for the achievements of the future. In seeking this higher—this better beyond—for the nation, many of our ideas of government, and laws and popular institntions are doubtless to undergo changes; and I am persuaded that on no other subject are these changes to be more radical than on that of education.

Industrial Advancement.

The next great educational step is to be, in my opinion, an industrial one. The public schools, in addition to the general training which they are to furnish, will be required to give also special instruction on such subjects as may relate to and illustrate the prospective vocation of the pupil. The time, in my opinion, has already come, when the initiatory steps in this direction should be taken, when the opportunity for this practical education should be given.

All capital is the product of labor; and society itself rests on the broad shoulders of laboring man and laboring woman. Any effort, therefore, to increase the educational or other opportunities of the industrial classes, I shall feel to be a movement in the right direction; and that, in the advocacy of agriculture as a study in the public schools, I am standing on firm ground, sustained by sound reason, and, as I believe also, so far as honestly tried by practical experience. But the policy of the movement is not generally accepted; and it must succeed, if at all, against the active opposition of some, and the silent protests of many others.

The first thing with which a novel movement has to contend, is always objection. Perhaps, therefore, it will be proper, in the argument, first to consider these: After having removed the obstacles a forward movement may be less difficult. It is urged that as the design of education is mental and moral development; and that, as the mind is superior to the body and knowledge better than riches, that system of culture shonld be adopted, and that course of study pursued which will produce the greatest mental and moral growth. This objection comes from the educators of youth themselves, and is indeed the only one of sufficient consequence to merit answer. But although it is dressed in the guise of an objection, and is intended as a strong one, I accept every word of it as truth, regarding it, when properly interpreted, as the strongest possible admission of the study of the industrial sciences, if I may so style them, in the public schools; I do not propose, therefore, to spike this cannon, but to take possession of it, only reversing the direction of its discharge. Doubtless, if we could penetrate the designs of the Infinite, we should find that life's labors and duties are intended as disciplinarians to prepare us for the labors and duties of that higher and better state for which this is only probationary; and it shonld reasonably follow that the acquisition and application of the requisite knowledge and skill should form the best possible mental and moral gymnasia. He who supposes that the course of study thus indicated is too limited, must himself have exceedingly limited notions of the length, breadth and depth of these obligations.

Culture Combined With Utility.

If it can be shown that the study of the sciences with reference to, and illustrative of, the industries, is equally as well adapted for mental culture and discipline as the study of them in the abstract, or with no such reference, then the valne of such a course as a disciplinarian is equal to that of the course now adopted in the schools. If it can be shown that such a course is better adapted for mental training, then the argument in its favor preponderates; and in either case, the fact that the student is thereby better fitted for life's duties, powerfully reinforces the argument.

"Use strengthens powers," says the good Spurzheim. The faculties of the mind, like those of the body, become active, vigorous and strong, each by its appropriate exercise. Now, which is the most favorable to mental activity, the study of science with, or without an object, with or without reference to its practical application. In both cases the same theorems and formularies must be demonstrated, the same scientific principles exemplified by experiment, and by facts in nature. The difference will be that in the study of science with reference to its uses, a greater number of experiments will be made, and a greater number of familiar phenomena explained. Another difference will be in the course of study pursued. The industrial student, for example, who may not have time or means to complete the usual course of study, will elect from it such branches as will best assist him in his vocation. He will leave out perhaps from the curriculum all languages but his own, and if his prospected vocation be agriculture, willgive the more time to chemistry, geology, botany, zoology, etc. It is hardly necessary to say that these sciences, in the amount of mental discipline which their acquisition will produce, in the habit and taste for study which they inspire, and in the subjects for future thought and investigation which they supply, are greatly superior to auy course of merely linguistio study.

It must not be supposed that the study of science with refereuce to its practical application is not a thorough study of it, or that the agricultural student must necessarily be superficial. To explain a fact by reference to its cause, implies a knowledge of the cause itself, and the illustration of a principle by its legitimate phenomena impresses it the more deeply on the mind. It is by the frequent applications of science, that the mind learns to use principles, formularies and theorems as the skillful mechanic does his tools, and this frequent applicatiou the agricultural student must necessarily have.

That education is best which, in addition to the knowledge it imparts, lays the best foundation for future growth, enabling the student at the end of life's pilgrimage to graduate highest in the scale of human development. What studies, I ask, more enlarge one's conceptions of nature, or more extend the circuit of thought, or lay a broader and deeper fouudation for reflection, than those which illustrate the operations on the farm—chemistry, geology, zoology aud botany—sciences whose terms are to become as the vernacular of the future agricultural student. They lay a broad and solid foundation on which the student is to build his future intellectual edifice. The farm is to become to him a field for scientific experiment, a laboratory whose results will constantly suggest further investigatiou. The student of these sciences soon learns, by his love for them, to investigate on his own account, and the mind, growing by what it feeds upon, becomes better and greater by its achievements.

Agricultural studies, therefore, as a means of development, are valnable in the fact that they appeal to and teach the reasoning faculties not alone during the school days, but during the whole life. The farmer employs practically uearly all the physical sciences, and very wide therefore, is his the field of research. Accordingly we find that agricultural science has commanded the attention of the most scientific miuds. The cultivators of the soil will long hold in grateful remembrance the names of Davy, Liebig, Johnston, Mapes, Draper, Buell and other colaborers in the field of research. The results of the labors of these scientists show that they wrought in fertile fields, their discoveries having added great and valuable accessions to human knowledge. He who denounces suoh studies as superficial is in danger of proclaiming his shallowness.

Objections Answered.

It is true that the elementary works which must be employed for a time, at least, may not contain a great amount of theoretical science. They will nevertheless contain much of practical and useful knowledge. But it is true also that their manifest usefulness will be a great incentive to study; and many a student who would otherwise have been satisfied with only moderate attainments will be tempted into wider fields of research.

Teachers of youth will universally bear witness that one of the obstacles in the way of introducing the more advanced sciences in their schools, is the belief too prevalent with both parents and pupils, that there is no practical use in them. But the utility of agriculture, as a study, is so apparent that this objection will not be urged; or, if made at all, will be easily overcome.

The objection that there are no suitable text books is without reasonable support, and can be urged only by those who are not familiar with agricultural literature or the progress of agricultural science. Several very valuable works have been written, some of which are designed as text books in schools and colleges. In this conneotion, the works of Johnston are especially to be commended. Besides, in this, as in other things, the demand will bring the supply. Only let the want of such text books become a fact and a hundred pens will contest the honor of meeting the demand, and every considerable publishing house will have a new book on agricultnre designed for the use of schools. Their agents will visit the school teachers' conventions, the agricultural and horticultural meetings, and your association will be waited upon with distinguished consideration. Competition will elevate the standard of these works, and the agricultural text book will soon equal in learning, thoroughness, adaptation for the school room and in every other excellence, the best works in other departments of science.

Another objection sometimes urged, is the want of qualified teachers. But this, not many years ago, would have been equally applicable to the study of grammar, geography and indeed all branches now taught in the schools other than reading, writing and the rudiments of arithmetic. Teachers, as a rule, are an intelligent and enterprising class of citizens. Let it be a fact that agriculture is to be taught and they will not be slow in adding this to their certified qualifications to teach.

Education with a Purpose.

Again, it is objected that the pupil does not know what his future vocation is to be, and that he should educate himself therefore without special reference to any. This objection is not true in fact. Practically, the future calling of the child is very early determined and whatever educational theories there may be, whatever educators or others may advocate to the contrary, the prospective professional man is always educated with reference to his future calling. In regard to the professions, the sturdiest opponents to practical education are false to their own theories. If the boy is to be a civil engineer, whatever else he may be taught, he is certainly trained in mathematical science, as well in theory as in its practical application. If he is to be a doctor of divinity he is certainly to be taught Latin, Greek and Hebrew, and carefnlly instructed in the opinions of authoritative theological writers. The States themselves, recognizing this general principle long ago, added departments of law and medicine to the State universities; and we have normal schools for the education of teachers. This then being the rule, with not an admitted exception, that the child should be educated with special reference to his prospective life occupation, provided that occupation be one of the learned professions, is it just that it should stop here? Is it right and proper that the rule should be exclusive in its application, and that laboring people alone should be deprived of its benefits? They who bear the brunt and burden of the day, and without whom society could not have advauced a single step from the barbarous state.

The Extent of the Field.

It is again urged that agriculture is so extensive a subject that it is difficult to know what amount of knowledge is necessary to fit one to teach. Properly considered, this objection puts away some others that have been pertinaciously urged. If the subject is thus extensive the pupil who masters it will have the general education so often set up in opposition to special education; and the argument so plausibly urged that it is better to make a man of the pupil than a farmer, or mechanic, a lawyer, doctor or preacher, finds itself completely refuted in this objection itself. And it might not be astonishing if even those who use this plausible sophism with so much fluency and confidence should be compelled to recognize in the student who has mastered the agricultural sciences a man, or mayhap a woman, in the highest sense of the word.

But is the extent of a science an objection to its study in the schools? People do not reason thus foolishly on other subjects. Who has been able to tell where the science of chemistry, astronomy or mathematics ends? The sciences in general, like their author, are infinite; the profoundest philosopher has not the wisdom, nor the shallowest pedant the assurance, to prescribe bounds to them. Bnt are they on this account excluded from the schools? The rule on this subject will adjust itself, just as with the other sciences. It is not required that one should be a Silliman or a Draper in order to teach chemistry, or a Lyell or a Dana in order to teach geology; neither is it absolutely necessary that one shonld be a Liebig in order to give instruction in agricultural science, though in this, as in other snbjects, the more knowledge one possesses, other thiugs being equal, the better teacher he will be.

The Way and the Result.

In the several sciences as taught in the schools, certain suitable text books have been prepared. Precisely so will it be with agriculture, and the teacher will be required to pass a reasonably good examination on the matters therein treated. As on other subjects, so in this, whatever experience, observation or reading may add will only increase the qualification to teach. Observation, investigation and discussion would, from year to year, add to the teacher's knowledge, and correspondingly elevate the standard of qualification. The knowledge which would have procured a certificate to teach English grammar ten years ago, might not enable an applicant to pass muster to-day. Here, too, would be progression. The standard of qualification would be fixed to such an adjustable scale as always to meet the public demands.

One other objection, and I shall have done with this side of the argument, which I fear I have already pursued to tediousness. This is the vague, ill defined, seeming-wise, and often foolish objection that always opposes itself to innovation. It is said to be impracticable. But why impracticable? If the introduction of agriculture as a study in the public schools will result in untold good to the State, far surpassing all additional costs and inconveniences, this progressive, utilitarian, *go-ahead* age will demand other evidences of impracticability than that of merely looking wise and ominously shaking the head.

Before the single word utility, these flimsy objections will be swept away; and we shall live to see, not only agriculture, but the sciences illustrative of the industries generally, taught in the public schools. In that "good time coming" labor will be honored, and laboring men and laboring women will take their places in public opinion, as they are now in fact, as the real aristocracy of the State.

[To be Continued.]

Bees.

How the Bees Fill a Hive.

No one will reach a very great measure of success in bee keeping unless they make a careful study of the nature and methods of the cunning agent with which they deal. An intelligent bee keeper is fitted for every emergency, and understanding the natural bent of the insect is prepared to guide and turn it to his advantage. We find in a recent article by Mr. D. E. Adair an interesting description of the way in which the bees work to fill a hive, which we trust may lead some of our readers who do not practice it to the habit of observing for themselves. He writes:

If we hive a natural swarm of bees in an empty hive, of such construction that we can observe and closely watch their work, we find that they suspend themselves from the top of the hive, or chamber, in which they are placed, in as compact a form as possible, appearing as an inverted cone; but, by a close observation, we will find that the outside bees of the cluster are not a part of the active force, but form a crust, inclosing the active cluster; in fact, they and the suspending bees form a natural hive, inside of which the organized forces are working. By taking a small stick or wire and passing it horizontally and suddenly through the middle of the cluster and letting all below it drop, we can, by looking quickly, see that the solid wall of bees is not exceeding an inch and a half in thickness, while inside it is not at all crowded, but that there is a hollow about three inches in diameter, and no more bees inside of it than can work on the new comb structure.

They commence working at the point where the circumference of the hollow sphere touches the top of the hive, by forming a narrow neck of comb, at first not more than three or four cells wide. This they carry down, slowly widening, but rapidly lengthening, until they reach a point exactly at the center of the hollow. Here they establish a center from which they work. Cells are built in a circle around this center, and it soon becomes the widest part of the comb; but as it widens and thickens it gets heavier, and would break down if the stem were not strengthened, so that it is gradually widened, until the comb in the center is about three inches wide, when the neck is equally widened. The edges of the comb now touch the inside of the crust, and the crust recedes. Just at this time two parallel sheets of comb are begun, as before, and are run down opposite the center.

As soon as the central cell is one-eighth of an inch deep the queen lays an egg in it. She then goes aronnd on the opposite side and lays eggs in the three cells that are built from the base of the central one. She then returns and deposits eggs in the six cells surrounding the first one, and continues to keep the cells on both sides filled with eggs, as fast as they are ready to receive them, thus establishing the center of her brood nest, at the center of the comb structure, and when the comb on each side of the first is brought opposite the center she embraces them in her circuit, thus giving her brood-nest a globular form.

The honey storing bees keep the store cells above filled with honey down to the brood. As the sheets of comb are widened they come down lower, and as each additional comb sheet is built they occupy more of it, thus storing the honey in an arch or dome over the brood.

The work thus progresses and will contiuue in the same order for twenty-one days, if the space be large enough; at which time the brood nest attains its full size, for, at the expiration of that time, the cells in the center, first filled with eggs, are vacated by the maturing bees, and the queen returns to the conter to refill them with eggs; and as they are emptied in the same rotation in which they are filled, she continues to follow them up, going over the same ground every twenty-one days.

The completion of the brood nest does not stop the comb building. That continues as rapidly as ever, but as it is not filled with eggs by the queen the honey gatherers keep it filled with honey, thus surrounding the brood with honey.

Arouud the brood on every side and below there is found a border of cells that are neither filled with brood nor honey, but are partly filled with bee bread.

Screw Threads.—The thread on a three-eighth inch gas pipe will sus ain a weight of 5,000 pounds; on a half-inch pipe, 7,000 pounds, and on a three-fourth inch pipe, 9,000 pounds. These facts are important to persons engagod in hanging chandeliors, etc.

Aquafortis, applied to the surface of steel, produces a black spot; on iron, the metal remains clean.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are at No. 6 Liedesdorff street, in rear of the Grangers' Bank of California, No. 415 California street San Francisco.

The Grangers' Business Association of California is at No. 351 Market St.

New Constitution and By-Laws.

We have the amended form of the Constitution and By-Laws and Rules of Order of the State Grange; the Declaration of Purposes, Constitution and By-Laws of the National Grange, and blank form of Subordinate Grange. Constitution and By-Laws now printed in one pamphlet. Granges supplied at five cents per copy, post paid, from the RURAL PRESS office, San Francisco.

GRANGE DIRECTORY.—We have concluded to postpone the printing of our Grange Directory until the first week in February, in order that it may embrace the records of elections in the several Granges which are now coming in each week. At that time we shall give a full list of the officers of the State Grange, Deputies names of Councils, Subordinate Granges, Masters and Secretaries.

ELECTION RETURNS.—Secretaries will please send us, as early as possible, the result of their election of officers. Write plainly (on one side only) in the following form:—"Napa Grange, No. 1. Napa City. Election, Dec. 4.—J. B. Saul, M.; J. W. Ward, Jr., O.; Harry Haskell, Sec.;" and so on, giving a full list and also the names of trustees and business agent. We should like to receive further correspondence from Secretaries

The "Press" and the Granges.

The RURAL PRESS takes occasion to thank the secretaries of the Granges for the prompt returns which they have sent us of their elections. They have enabled us to make our lists full and satisfactory. It is of advantage also to the officers of the Granges, as it places their names and addresses before those who will be sending out valuable free documents during the year.

We thank our correspondents also for the notes of news and progress which they have sent us. We hope they will continue to write us concerning the topics of agricultural and Grange interests in their neighborhoods. All officers are invited to write to us, and especially the Masters, Lecturers and Secretaries.

We trust the officers will also be able to do something for the RURAL PRESS in the way of extending its circulation. We benefit them not only by the information which they receive from our columns, but also by the great fund of information which we send broadcast over the land concerning their different locations, and the coast at large. We glean this valuable matter from all sources and put it in most convenient form for doing most good. While we are doing this work our friends can uphold our hands by constantly increasing the circle of our audience, and thus the ends of advancement toward which we are all laboring will be brought nearer. Let us push forward together. Good friends, do not forget that the RURAL PRESS asks your earnest aid, and spares no effort to deserve it.

From the Granges.

Funk Slough Grange.

MESSRS. EDITORS:—On the 18th our Worthy Secretary, R. Jones, and myself paid a visit to Funk Slough Grange, as delegates from the Colusa Grange. Their meeting on that occasion was held at Fairview school house. We left Colusa at ten o'clock, and had a pleasant ride of two hours through as fine a farming country as there is in the county. I was surprised to find the summer fallow and volunteer crops so far advanced. They look more promising than I have ever seen them at this season of the year. The farmers are as busy as bees plowing and putting in grain. If the season holds out favorable Colusa county will produce more grain the coming season by one-third than in any previous season.

We arrived about twelve o'clock, and were welcomed by Worthy Master McDow. There was a very good attendance, considering the muddy roads and the farm work necessary to be done at this season. After the regular business of the Grange was over, the annual election was held, which resulted in the choice of the Worthy Overseer, George Able, for Worthy Master during the ensuing year, and I judge from appearances he will make an excellent presiding officer, which goes a long way in keeping up the life and interest of a Grange; and another good choice was the election of Miss Ida Fulton as Worthy Secretary. I like to see lady Secretaries of Granges, for I think, as a general thing, they are more punctual and zealous in the good work than the men. Then came the dinner, and such a feast, roast turkeys, chickens, cakes, pies and pretty girls—who would not be a Granger?

The people of Fairview ought to be proud of their school building. Although they have only twenty-five or thirty scholars, they have the finest school house I have seen in the county outside of Colusa, large and spacious, beautifully located in the midst of a rich farming country, and surrounded by well-to-do farmers. The interior is nicely finished, well ventilated, and fitted up with maps, charts, globes, etc., for a first-class school. They have a very excellent teacher at present, at a salary of $80 per month. I think the country schools of California will compare favorably with those of any State in the Union. We returned to Colusa well pleased with our trip.

J. R. TOTMAN.

Colusa, December 20th, 1875.

Pescadero Grange.

MESSRS. EDITORS:—I have not seen anything in the PRESS from this place for a long time; therefore a few items from here may be of interest to some of your many readers. Pescadero Grange still lives. At the last meeting, held Dec. 18th, our annual election took place. There was quite a large attendance, and a general good feeling prevailed during the meeting among our members. The result of the days' work was the election of a full corps of officers who will have charge of our Grange farm during the Centennial year. Installation to take place the 3d Saturday in January.

The weather during December has been delightful. The sun shone bright and clear every day until Christmas, when the sky clouded over, and rain commenced to fall again. There have been no winds, and only three or four frosty nights to check the growth of vegetation, so that now feel for stock is very good in many places. The farmers in this vicinity are all very busy pushing forward their work. They have been improving their time during the last few weeks plowing and preparing the soil to receive the seed, hoping in due time to reap an abundant harvest. There will be as large an acreage sown this winter, if not larger, than has been sown any former year. The farmers have been laboring under a great disadvantage, owing to the epizootic which has prevailed here among the horses, nearly all being afflicted, though in rather a mild form, there being no serious cases reported. The weather being warm, has been greatly in favor of those affected with the disease. The season so far could not have been more favorable for either farming or dairying than it has been.

Pescadero, Dec. 16th. PATRON.

Mountain Grange.

MESSRS. EDITORS:—Sluggish streams which have no obstacles in their course are always muddy, but the mountain rivulet, that dashes against rocks and over precipices, forming cascades and cataracts, is always crystal clear.

The latter has been comparable to our Grange during the year. Our difficulties grew out of the fact that we had incorporated a joint-stock company, with a capital stock of $40,000, and commenced a building 26x46, two stories high; lower story for a store and upper story for Grange hall; but unforeseen circumstances, failure of crops, etc., formed the impeding rocks and precipices which prevented the smooth progress of our efforts. Yet being united and determined, and organized under the name of Mountain Grange, No. 173, P. of H., our Grange has wound its way around the mountain and over the rocks, and left us a crystal stream.

Socially, the Grange is a farmer's home. What tends more to enlighten the mind and fill it with principles that shed their luster down through the whole course of life than farmers, with their wives, sons and daughters, gathered together, after the work of the week is completed, engaged in healthy, mind invigorating social intercourse, in their Grange?

Some who are inclined to see a humbug in every new move assert that this is a woman's rights' movement. I know nothing of woman's rights other than women ought to have the same rights as man. But the condition of a people, its customs, its manners, its morals, its social standing, its educational status, depend more upon its women than upon men. Is there not as wide a field for improvement in women's sphere as in men's? Besides, when men are assembled for mental culture or social chat, what more stimulates them to high-minded action than the presence of women? Some compare us to the mushroom, that springs into existence in a single night, with all its perfection, but disappears from view quite as suddenly, at the slightest touch of adverse fortune. Others say know-nothingism swept like wildfire through the country; but it was scarcely known before it was unknown. But in know-nothingism there was nothing in it worth knowing. J. B.

San Benito, Dec. 29th.

Elna Grange.

MESSRS. EDITORS:—Elna Grange, considering its isolation among the mountains, is in a healthy condition. At our next regular meeting, which is on the third Saturday of this month, we shall meet and install officers elect in our new hall, at Crystal Creek, Scott valley. It is a fine building, of wood, built in conjunction with the trustees of Washington school district. The lower story is the school house, and the upper story Grange hall. The hall is 28x40 feet. The location is in the heart of the agricultural portion of Scott valley, eight miles from Ft. Jones, and four miles from Etna mills. Fort Jones Grange consolidated with us last January, and surrendered their charter. The great want here is a market for produce; our town markets are limited, and we have to compete with Rogue river valley, Oregon. The rich gold quartz mines of Salmon river, the "Black Bear and Klamath" mines furnish employment for a great many men, and one of our best markets for produce. The rich quicksilver mines in Trinity valley will be a great help to us, still our felt want is railroad communication. The completion of the California & Oregon railroad will make dairying our principal business. Siskiyou can be made the Orange county of the Pacific. There is no better place for making butter and cheese. We have the cool mountain water, cool nights, and the best of grasses. With the railroad completed, we could have a three months' run of fresh butter to ship to San Francisco when the season is over in the lower counties.

Etna Mills, Siskiyou Co., Cal. L. S.W.

Colusa Grange.

MESSRS. EDITORS:—At a regular meeting of Colusa Grange, No. 48, held on Saturday, December 25th, officers were elected for the ensuing year. We had a very interesting meeting. All seemed to nurture the hope that the coming year would be a prosperous and bountiful one, and that our beloved Order would become more perfect and more prosperous in all its branches. One peculiar feature of our election was the choice of Mrs. Mary Kilgore for Overseer. I think it is a step in the right direction. Give the ladies a chance; they have proved themselves true and trusty as far as they have gone. Mrs. Kilgore is a very estimable woman, and will make an excellent officer. Installation of officers will take place on Saturday, January 15th, and all good Patrons are invited to meet with us, and to you, Messrs. Editors, we would give a special invitation. We would like very much to see you in Colusa. The long spell of foggy weather was finally brought to a climax last night by a heavy rain, which has brought the Sacramento river over its banks again. It has cleared off, and we may expect some cold, frosty nights soon. There has been no frost thus far this season. The farmers are all busy putting in their crops, and the grain is looking extra fine.

J. R. TOTMAN.

Colusa, Dec. 29th, 1875.

San Jose Grange.

MESSRS. EDITORS:—According to previous notice, on Saturday, December 18th, Professor Kinley, of the San Jose Institute, by invitation from the Patrons of Husbandry, delivered a lecture in their hall on the subject of "Agriculture in the Public Schools." The lecture was free to all; and not withstanding the unpleasantness of the weather, there was in attendance a large and appreciative audience. At the close of the lecture, which was listened to with the most profound interest, a vote of thanks was tendered the Professor for his able and interesting address. Also, on motion, a resolution was adopted by the meeting, asking Professor Kinley for a copy of his lecture for publication in the PACIFIC RURAL PRESS.

G. W. M.

San Jose, Dec. 18th, 1875.

[Professor Kinley's lecture appears in part elsewhere this week.—EDS. PRESS.]

Feast at Cache Creek Grange.

MESSRS. EDITORS:—As I have not seen anything in the PRESS from Cache Creek Grange for some time, I thought I would drop you a few lines to let you know that we are still alive, and not only alive, but we pride ourselves on having the largest and best Grange in the country—and that is not all, we have the best cooks and prettiest girls. If you had been present on New Year's day at our installation and feast you would have been bound to acknowledge it. We had a good attendance considering the condition of the roads, and the damp, cool weather. We have outlived the troubles of '74, and I think our Grange is on a firmer foundation than ever. The crop prospect could not be better. R. B. BATTER, Soc'y

Cache Creek Grange, Yolo Co., Jan. 2, 1876.

Mussel Slough Grange.

MESSRS. EDITORS:—Times are very hard here at present, although we have had plenty of rain, but it has not eased the times any in this beautiful Mussel Slough country. People do not depend wholly on the rain, they have irrigating ditches, and some of them are now full to the brim, and the farmers are making preparation to sow considerably more small grain this year than ever before. They feel confident of raising a large amount of grain by irrigation on an acre. Mussel Slough Grange hold their regular meetings the first and third Saturdays of each month. W. U.

Lemore, Tulare Co., Dec. 20th.

Vallejo Grange.

MESSRS EDITORS:—The stormy weather and muddy roads, although unfavorable, did not prevent a goodly number attending the installation of officers of our Grange to-day, and of partaking of the collation provided by the sisters, such a one as characterizes the offerings from sister Patrons in excellence and abundance. The flow of good feelings, kind wishes, and hearty welcome was the best of all relishes. There was enough to prove that the Patrons of Husbandry are not "without form or void," and that they have not failed in their mission, but are accomplishing great good, and conferring lasting benefits by the doctrines taught and practiced. G. PEARSON, Sec'y.

Vallejo, Jan. 1st.

Pomo Grange.

C. I. H. Nichols sends us the following note of good tidings: Pomo Grange, No. 216, held its annual election Dec. 18th, and elected officers, most of those filling important offices being re-elected for a "third term." But for the interference of business and ill health, few changes would have obtained. Our members, about 87 in number, are a unit in sympathy and objects. Measures are in progress for a Grange store, which will probably be opened in the spring.

Lodi Grange.

MESSRS. EDITORS:—We held our annual election last Friday; had a pleasant meeting; was largely attended, in fact, the room was quite full, and all seemed interested in electing a good board of officers. Inclosed please find a copy. Adjourned to meet in four weeks for installation, to which we cordially invite the public to that impressive ceremony.

A. T. AYERS, Sec'y.

Lodi, San Joaquin Co., Dec. 29th.

Rising Star Grange.

MESSRS. EDITORS:—After an election on Christmas day, we had a harvest feast, and in the evening we joined with the friends of the district school, and had a grand good exhibition. About fifty pieces were spoken by the little folks, and they did their parts well. We broke up at about eleven o'clock, in time to get home without breaking the Sabbath.

Pauoche, Dec. 28th. G. E. HINKLEY, Sec'y.

North Butte Grange.

J. G. Dow, secretary of North Butte Grange, writes as follows: "I would state to you that our Grange is in a very prosperous condition, and has been since its organization. We number fifty members, and still they come. The officers are very efficient, and the laborers therein plow deep and keep their furrows straight. I would like to speak of the efficiency of our worthy Master, the Hon. B. R. Spilman, but he takes the PRESS."

Strawberries.

MESSRS. EDITORS:—I am picking strawberries for the Santa Clara Grange harvest feast to-morrow, and send some to the RURAL, as I suppose you will not be with us. Though gathered in '75, they may be eaten in '76 if you choose. With a "Happy New Year" to you and yours, I remain, yours fraternally,

Santa Clara, Dec. 31st. J. W. WILCOX.

[Bro. Wilcox's strawberries reached us in fine condition and filled our office with the rich fragrance which must have lingered about the Santa Clara harvest feast. Thanks.—EDS. PRESS.]

RE-ELECTIONS.—It was our original purpose to notice none of the "re-elections" in the lists of officers in the Granges, because it would be impossible to get them all. We find that some of the lists have been printed with "re-elected" annexed to some of the names. Our readers must not infer from this that other officers in other Granges, not thus marked, have not gained the distinction of re-election, because they have in many instances.

LADY OFFICERS.—Bro. W. E. Elliott writes from Merced Grange as follows: "You will notice by our list that we have elected a number of sisters to important offices, hoping thereby to increase the interest and zeal in our Grange." We hope the ladies will redeem the trust thus imparted to them, and we doubt not they will.

Election of Officers.

CENTERVILLE GRANGE, No. 120, CENTERVILLE ALAMEDA COUNTY.—Election, December 18th J. M. Horner, M.; Henry Dusterby, O.; Jas. Shinn, L.; W. A. Moore, S.; W. A. Blacow, A. S.; Mrs. H. Overocker, C.; M. R. Sturges, Sec'y; H. Overocker, T.; J. A. Troefry, G. K.; Miss M. A. Horner, Ceres; Miss Maria Babb, Pomona; Miss Josephine Horner, Flora; Mrs. L. P. Osgood, L. A. S.: J. T. Walker, Trustee.

CHRISTMAS GRANGE, No. 141, JONESO, TULARE CO.—Election, Dec. 25th: S. H. Blood, M.; M. P. Troxler, O.; A. B. Carey, L.; George Slight, S.; S. A. Colburn, A. S.; C. O. Butler, C.; G. W. Cotton, T.; J. Perrin, Sec'y; J. W. Brown, G. K.; Mrs. J. W. Brown, Ceres; Miss Viola Blun, Pomona; Mrs. E. Talbut, Flora; Miss Marion Boyd, L. A. S.

COLUSA GRANGE, No. 48, COLUSA, COLUSA CO. Election, Dec. 25th: J. R. Totman, M.; Mrs. Mary Kilgore, O.; W. T. Green, L.; L. Kilgore, S.; A. A. Rutland, A. S.; W. K. Estell, C.; S. Harris, T.; R. Jones, Sec'y; S. B. Stormer, G. K.; Mrs. M. E. Estell, Ceres; Mrs. A. Marr, Pomona; Levina Estell, Flora; Katie Jones, L. A. S.

COMPTON GRANGE, No. 37, COMPTON.—Election, December 28th: C. W. Collins, M.; A. A. Proctor, O.; J. P. West, L.; A. M. Peck, C.; J. J. West, S.; J. J. Morton, T.; T. V. Kimble, Sec'y; T. H. Rogers, A. S.; Mrs. Hazen, L. A. S.; Mrs. Eddy, Ceres; Mrs. Twombly, Pomona; Mrs. Proctor, Flora; Mrs. C. E. Frasier, G. K.

ELK RIVER GRANGE, EUREKA, HUMBOLDT CO., CAL.—Election, Dec. 4th: Theo. Meyer, M.; R. A. Haw, O.; Mrs. F. L. Meyer, L.; F. S. Sbaw, S.; J. Gardner, A. S.; A. C. Spear, C.; A. Swain, T.; Miss E. M. Williams, Sec'y; W. Tierney, G. K.; Mrs. A. Knapp, Ceres; Mrs. L. Gardner, Pomona; Mrs. R. A. Haw, Flora; A. J. Knapp, Trustee.

ETNA GRANGE, No. 219, ETNA, SISKIYOU CO.—Election, December 18th: H. S. Mathews, M.; J. T. Moxley, O.; Hon. J. W. McBride, L.; O. V. Green, S.; Cbas. Hoornden, A. S.; Jas. A. Davidson, C.; Jas. H. Walker, T.; L. S. Wilson, S.; S. D. Varnum, G. K.; Mrs. J. T. Moxley, Ceres; Mrs. O. V. Green, Pomona; Mrs. L. S. Wilson, Flora; Mrs. Jas. H. Walton, L. A. S.; Trustees, Chas. Hoornden, J. W. Tuttle and Thos. Quigley.

EL MONTE GRANGE, No. 43, EL MONTE, LOS ANGELES CO.—Election, Dec. 11th: J. T. Gordon, M.; P. Penfold, O.; G. C. Gibbs, L.; M. F. Quinn, S.; S. Penfold, A. S.; J. H. Gray, C.; Wm. Haddox, T.; A. H. Hoyt, Sec'y.; G. H. Peck, Jr., G. K.; Sister Gordon, Ceres; Sister Peck, Pomona: Sister Floyd, Flora; Sister S. Penfold, L. A. S.

INDEPENDENCE GRANGE, No. 210, INDEPENDENCE, INYO CO.—Eleotion, Dec. 4th: J. W. Symmes, M.; J. Shephord, O.; J. W. Martin, L.; John Baxter, S.; Wm. Boyd, A. S.; A. Wayland, C.; Jacob Vagt, T.; W. H. Cassidy, Sec'y; F. Schahble, G. K.; Mrs. Vagt, Ceres; Mrs. Graves, Pomona; Mrs. Symmes, Flora; Mrs. Martin, L. A. S.

LIVERMORE GRANGE, No. 91, LIVERMORE, ALAMEDA CO.—Election, Dec. 25th: D. Inman, M.; J. A. Neil, O.; Almond Woinrouth, S.; E. B. French, C.; T. Veal, A. S.; O. R. Owons, Sec'y; Mrs. R. Emmert, Ceres; Mrs. Anua Bangs, Pomona; Mrs. Inman, Flora; Mrs. Joie Brackett, L. A. S.; Trustees, E. S. Alleu and J. Edmonds.

LODI GRANGE, No. 92, LODI, SAN JOAQUIN COUNTY.—Electiou, Decemher 24th: J. M. Fowler, M.; J. W. Kearney, O.; W. H. Post, L.; O. O. Norton, S.; C. C. Stoddard, A. S.; A. S. Guernsey, C.; Mrs. A. W. Gove, Sec'y; A. W. Gove, T.; C. P. Allison, G. K.; Mrs. J. M. Fowler, Ceres; Mrs. E. Lawrence, Pomoua; Mrs. J. Gerrard, Flora; Mrs. S. P. Sabin, L. A. S.

MAGNOLIA GRANGE, No. 261, GRASS VALLEY. Eleotion, Deo. 28th: E. M. Denton, M.; Dan. Bilderhack, O.; J. N. Ritchie, L.; C. C. Ragsdle, S.; Wm. Cunningham, A. S.; D. Deadman, C.; James Cantier, T.; P. A. Womack, Sec'y; John Ragsdle, G. K.; Mrs. L. Ragsdle, Ceres; Miss Bell Crain, Flora; Mrs. M. J. Higgins, Pomona; Mrs. M. L. Bilderback, L. A. S.; James Cantier, Trustee, threo years.

MATTOLE GRANGE, No. 201, PETROLIA, HUMBOLDT CO., CAL.—Election, Dec. 18th: Stephen Goff, M., M. J. Conklin, O.; L. Wright, L.; J. H. Goff, S.; Frank Gouthier, A. S.; J. R. Fox, C.; Chas. S. Cook, T.; Dave Simmons, Sec'y; Wm. Roberts, G. K.; H. S. Doe, Ceres; Mary Goff, Pomoua; Clara Conklin, Flora. A. A. Benton, L. A. S.; Chas. A. Doe, Trustee.

MERCED GRANGE, No. 7, MERCED, CAL.—Election, Dec. 18th: R. S. Clay, M.; William Whalin, O.; Jennie Rogers, L.; H. J. Ostrandler, S.; A. Smith, A. S.; B. Clay, T.; M. Herrin, Sec'y; S. R. Spears, C.; Eli Grimes, G. K.; Minnie Spear, L. A. S.; Mrs. M. Herrin, Ceres; Mrs. Smith, Pomona; Mrs. M. Goodall, Flora.

MORO GRANGE, No. 27, MORO, CAL.—A. J. Mothersead, M.; F. Riley, O.; H. Y. Stanley, Seo'y; A. B. Spooner, L.; T. J. Stephens, S.; Jas. Cocke, A. S.; Susan Langlois, C.; F. W. Parker, T.; D. H. Whitney, G. K.; Mrs. H. G. Riley, Ceres; Mrs. Parker, Flora; Mrs. Draper, Pomona; Miss Lizzie Riley, L. A. S.; F. W. Parker, Jas. Cocke, Trustees.

MOUNTAIN GRANGE, No. 173, SAN BENITO, SAN BENITO COUNTY.—Eleotion, Decemher 4th. G. Brown, M.; D. M. Selleck, O.; J. H. Matthews, L.; S. Kennedy, S.; J. F. Taylor, A. S.; L. A. Mosop, C.; W. K. Gaff, Sec'y; John Mantes, T.; J. D. Justice, G. K; Miss J. Carmicheel, Ceres; Miss M. Kennedy, Pomona; Miss M. Holt, Flora; Miss Ella Justice, L. A. S.

MUSSEL SLOUGH GRANGE, No. 243, LEMORE, TULARE CO.—Election, Dec. 4th, 1875: Wesley Underwood, M.; Thomas Startin, O.; John Battenfeld, S.; Geo. Battenfeld, A. S.; Thompson Standart, L.; John T. Duncan, C.; Thomas H. McName, T.; Wm. H. Battenfeld, Sec'y; John Mills, G. K.; Miss F. Hare, Ceres; Miss F. Startin, Pomona; Miss M. Duncan, Flora; Mrs. M. J. Standart, L. A. S.

NORTH BUTTE GRANGE, No. 225, NORTH BUTTE, SUTTER CO.—Election, December 27th: B. R. Spilman, M.; Otic Clark, O.; Dr. Wm. McMurtry, L.; H. S. Graves, S.; W. T. Lamh, A. S.; C. Williams, T.; E. T. Bigelow, C.; J. G. Dow, Seo'y; F. F. Clyma, G. K.; Miss S. C. McMurtry, Ceres; Miss M. Pugh, Pomona; Miss Mary Albert, Flora; Mrs. Otic Clark, L. A, S.; Trnstees, Dr. McMurtry, H. S. Graves and F. M. Clyma.

POMO GRANGE, No. 216, POMO, MENDOOINO CO.—Election, Deo. 18th: John Mewhinney, M.; B. Pemberton, O.; T. Dashiel, L. (all re-elected); Wm. Kilbourn, S.; W. Grover, A. S.; G. W. Pickle, C.; L. P. Grover, T.; Eli V. Jones, Sec'y; J. Woolever, G. K.; Mrs. D. Mewhinney, Ceres; Mrs. Lavinia Grover, Pomona; Miss Mary Wattenberger, Flora.

RISING STAR GRANGE. No. 177, PANOCHE, FRESNO CO.—Election, Dec. 25th: I. N. Canfield, M.; A. C. Lawrence, O.; H. R. Sbaw, L.; W. N. Thornburg, S.; D. Vanclief, A. S.; R. Gardner, C.; Fayette Bennett, T.; G. E. Hinkley, Sec'y; N. B. Vanclief, G. K.; Mrs. O. S. Thornburg, Ceres; Mrs. D. Canfield, Flora; Rosa Lawrence, Pomona; Mrs. Fannie Smith, L. A. S.; W. W. Hager, Trustee; H. R. Shaw, Local Agent.

SONOMA GRANGE, No. 55, SONOMA, CAL.—Election, Dec. 7th: Wm. McPherson Hill, M.; Leonard Goss, O.; J. Harding, L.; J. M. Sheney, S.; A. S. Edwards, A. S.; O. Cbart. L.; C. C. Champlain, T.; J. A. Poppe, Sec'y; G. E. Wattriss, G. K.; Mrs. Goss, Ceres; Mrs. Craig, Pomona; Miss E. Wattriss, Flora; Mrs. Chart, L. A. S.

TULARE GRANGE, No. 198, TULARE CITY.—Election, Dec. 30th: P. S. Tracy, M.; G. W. Wray, O.; John Fowler, L.; John H. Hart, S.; D. E. Wilson, A. S.; E. M. Wilson, C.; W. W. Wright, T. (re-elected); J. A. Goodwin, Sec'y; Isaac Fowler, G. K.; Mrs. E. Wray, Ceres; Mrs. I. Williams, Pomona; Miss Lizzie Fowler, Flora; Mrs. J. A. Goodwin, L. A. S.

WATSONVILLE GRANGE, No. 124, WATSONVILLE, SANTA CRUZ CO., CAL.—Election, Dec. 4th, 1875: J. M. Ripley, M.; N. A. Dorn, O.; Mrs. Owen Tuttle, L.; A. Roach, S.; G. Halst, A. S.; D. Tuttle, C.; Owen Tuttle, T.; Owen S. Tuttle, Sec'y; Peter Murphy, G. K.; Miss Ettie Dorn, Ceres; Sara Redman, Pomona; Miss V. Fergueson, Flora; Mrs. Drew, L. A. S.

WESTMINISTER GRANGE, No. 127, ANAHEIM, LOS ANGELES CO.—Election, Dec. 4th: Geo. C. Mack, M.; J. Y. Anderson, O.; W. G. McPherson, L.; Joseph Bingham, S.; George G. Tompkins, A. S.; George Dauskin, C.; J. D. Bowley, T.; W. F. Poor, Sec'y; James A. McFadden, G. K; Mrs. Susan A. Mack, Ceros; Mrs. Jennie C. Anderson, Pomona; Mrs. Flora Bowley, Flora; Mrs. Neta Marquis, L. A. S.; M. B. Craig, Trustee.

AGRICULTURAL NOTES.

BUTTE.

RANCH SALE.—*Record*, Jan. 1: The re-sale of the Durham, or old Neal ranch, under order of the Probate Court, took place on tbe 30th inst. At its former sale a year or two since, by the Executors, it brought something over $44,000. The sale was contested by Mr. G. W. Gridley, who offered 10 per cent. more than the ranch was hid in for, and a re-sale was ordered. It will be seen that it brought nearly 20 per cent. more than at the former sale, the total sum being $62,000. Much of this land has recently proven to be good wheat land, and it was warmly contested for. It was sold in lots and was bid in as follows: Lot 1, Thomas Callow, $4,400; lot 2, Hendricks & Co., $5,500; lot 3, George Durham, $7,000; lot 4, G. W. Gridley, $9,000; lot 5, G. W. Gridley, $20,000; lot 6, G. W. Gridley, 10,000; lot 7, G. W. Gridley, $6,700. Total amount of sale, $62,000. The sale was for coin, and notwithstanding the general complaint of olose times in finaucial matters, parties were in town a day or two previous to the sale with large sacks of coin that meant business.

CONTRA COSTA.

THE GRANGE WHARF AND WAREHOUSE.—*Gazette*, Jan. 1: A most eligible site, embracing three acres of land and a right of way one hundred feet wide to ship channel, has been secured by the Directory of the Grangers' Business and Warehouse Association, and surveys for the wharf and roadway are now being completed.

FRESNO.

FARMING.—*Expositor*, Deo. 29: Duriug the past week we have had an opportunity of seeing the amount of farming enterprise going on in the vicinity of Borden and Centerville. In the neighborhood of Borden the amount of grain put in is largely in excess of former seasons. Winter irrigation is being practiced to a large extent. The ground is flooded, and as soon as the water soaks in sufficiently to permit of its being ploughed it is prepared aud planted. It is thought that land prepared in this manner is sure to produce an excelleut crop. Nearly three hundred men are engaged in ditch building, irrigating and ploughing and planting ahout Borden. In the vicinity of Centerville we were pleased to notice that many new farm houses have been erected and that in addition to the old farms a large area of new land has heen ploughed and planted. Grain in all portions of the county is looking fine and is more forward than it was in February last season. The farmers are hopeful and in excellent spirits.

KERN.

CRANBERRIES. — *Californian*: Our citizeu, Isaac B. Rumford, has obtained 100 cranherry plants from Massachusetts, with which he proposes to try their adaptability to our soil and climate.

LOS ANGELES.

BEE-KEEPERS' MEETING.—*Express*, Dec. 25: At the hee-keepers' meeting on the 18th ult. the following officers were elected for the ensuing year: President, J. P. Bruck; Vice-Presidents, J. T. Gordon and W. T. Clapp; Secretary, W. Muth-Rasmussen; Treasurer, Mrs. B. Richarason. Mr. Bruck was appointed to write a paper for the next meeting on a new remedy for foul brood. Also Mr. Kelly on fertile workers.

WHAT WAS NEEDED.—*Express*, Jan. 1: The very acceptable rain which fell last night will serve to carry our farmers over several weeks. With the ordinary chances in our favor, we are now secure in a season of great productiveness. There is hardly any contingency, short of a phenomenal calamity, that can prevent our county from developing a crop of unprecedented fullness.

MENDOCINO.

GOOD SEEDING.—*Democrat*, Dec. 24: A trip along the main road np and down the valley shows that our farmers are up and alive to the beneficent gift of the present good weather and grain is being put in the ground more rapidly than ever we have seen here before. Along down the valley we notice Mr. Weller is nearly done, White, Hewston Burk, A. Burk, Doolan's place, Morris place, Hooper, and others are well along. Ed. Cox does not plow until late for fear of an overflow, his ground being sandy river loam producing well sown late.

HAY.—It is fortunate for consumers that no one undertook to make a "corner" in hay in this valley last fall. At the present time hay is worth $20 per ton and scarce at that. This week R. M. Hildreth was hauling hay from Schlessenger ranch to town. Tho cost laid down here must bave been over the above figures considerably. From prosent indications hay will be abundant and cheap next seasou.

MONTEREY.

LARGE ACREAGE.—*Democrat*, Jan. 1: At the date of writing this, December 29th, the rain gauge kept hy Dr. Abbot, in this place, marked 7.35 iuches as the amount of rain-fall for the season, being within a fraction of tbe total of the season preceding. So far, the goneral expression is, there never was a finer season for crops and for grass, than the present. Taking advantage of the mellow condition of the ground, new lands, in large quantities, have been aud are being opened by the plow, so that from fifteen to twenty thousand acres additional will in our valley this year he brought within the area uuder cultivation. Not less than 120,000 acres, there is every human probability, will this year, in the Salinas valley, be turned by the plowshare and be seeded in wheat and barley.

NAPA.

FAVORING SKIES.—*Reporter*, Jan. 1: A majority of our farmers, taking advantage of the good weather, had finished seeding before Christmas, and with their fields in fine oouditon waited for the holidays and the next rains. Both came tôgether. Christmas eve night we had a fine, warm, gentle rain, Christmas night the same was repeated, and during the week we have enough rain to again saturate the ground very deeply and raise the streams a little. It has all come to us, however, without storm or bluster; come as gently as dew. Verily thus far our farmers have nothing to complain of.

VINICULTURAL SOCIETY.—*Star*, Dec. 30: Pursuant to adjournment the grape growers, wine manufacturers and distillers of grape brandy of St. Helena and vicinity, met last Friday and organized a society under the name and title of the Vinicultural club of St. Helena. Tbe following officers were elected: President, Charles Krug; Vice Presidents, Conly Conn, W. B. Crabb and Seneca Ewer; Secretary, H. A. Pellet; Treasurer, J. C. Weinberger. Regular meetings second Saturday in each month at 1 P. M.

SAN BERNARDINO.

JUST IN TIME.—*Argus*, Dec. 30: The rain on Tuesday night has fallen at a most opportune moment, just as we were heginning to suffer a little for moisture. The grass had stopped growing, aud the young grain wanted a fresh starter. All seems now well. The prospect for a bountiful harvest was never better at this season of the year than it is at present in San Bernardino county.

FACTORY NEEDED.—If there is one thing more needed than anything at the present time, to insure the lasting prosperity of San Bernardino, and as a necessary sequence the prosperity of the county also, it is the building up here of a woolen factory, such as we can and should have. The main object for us to attain at present, is to induce some prominent factory man to visit our town and valley, and let him see for himself what a vast water power we have, and offer to give any company a site for their faotory, and insure them of a full head of water to run the machinery at all times. Or, perhaps, a hetter proposition would he for some of our men of capital to erect the building, and factory men to put a full set of the hest machinery against so much stock in buildings and raw material to manufacture into fabrics.

SAN DIEGO.

LEMONS.—*World*, Deo. 25: Mr. Weegar had a lot of lemons in his store tbe past few days, raised by Mr. Switzer of this place, whicb for size beat the beaters on that line, so far as we know. Some of them, of a rough, oblong shape, weighed one and a quarter pounds. In the crop were also some round or Sicily lemons, not near so large, but said to be good, and one between that size and the other, of tho rough, oblong kind, said to be very excellent for taste.

SANTA CRUZ.

TWO-AND-A-HALF FEET OF CARROT.—*Pajaronian*, Deo. 23: We were shown a carrot ono day last week, by Henry Goodwin, that grew on his place about a mile from town, that was the largest one we ever saw; it was thirty inches long, tweuty-one inches in circumference, and weighed sixteen pounds. Wbo can heat that?

SANTA BARBARA.

ALMOND FIELD.—*Press*, Deo. 26: Tbe three-year-old trees at Santa Barbara have this year borne about thirty-one and a half pounds of almonds, on the average, while the two-year olds yielded about a quarter of a pound. The crop of Col. Hollister's place amounted to seventeen thousand pounds.

STANISLAUS.

ORANGES.—*News*, Dec. 31: In Stanislaus some twenty orange trees are now bearing prolificly, and in five years more there will, in all probability, be as many hundred. If the furore for their cultivation continnes hut a few years longer they will eventually he as common in this State as apples.

VENTURA.

HONEY.—*Signal*, Dec. 25: The production of honey has in the past, in this county, proved quite remunerative, and we are pleased to observe that our bee men are taking great pains to place their honey in the market in the best possible shape, and will thus make still more from it. It is a source of revenue which increases in importance each year. It is impossible to flood the market with suoh honey as is produced where the white sage ahounds.

Montana.

WOOL.—*Husbandman*, Dec. 23: It is a little surprising how fast the business of wool-growing is gaining in favor with our people. Only a few years ago it was comparatively unknown; but a few experiments have proved so successful, that now it is the most popular branch of business in Montana. Our wool product will soon be an important item in the summing up of our resources. The wool-growers of tbe Pacific slopo are just beginning to learn of the free and unequaled pasturage to be found in our Territory, and another season will find immense flocks of sheep being driven in. We will be glad to see them come. The wool-growers of the Pacific coast will find a good home here, and will find pasturers that, if properly cared for, will improve every year. Here their flocks, wben once healed of the diseases peculiar to tbe section from whence they came, will remain healthy. We are personally acquainted with a number of persons who have large flocks in California, who intend driving here next season.

Oregon.

THE SEASON.—*Sentinel*, Dec. 31: So far this has been one of the rainiest and warmest winters that has ever been known in this latitude. We have had a little snow, but scarcely any frost. The snow did not lay on the ground only a few hours; it melted nearly as fast as it fell. Tbe grass is green all over the country, and it is growing very fast. There are plenty of apples still hanging on the trees. Even the people in town have not gathered in all their apples. E. D. Foudray, Peter Britt and Father Blanchet have apples still green and in good order hanging in their gardens. The rose hushes are also in full bloom. The whole ccuntry looks more like May than the last of December.

Stencil Plates by Electro-Magnetism.

One of the most ingenious and novel applications made of electro-magnetism, is that invented hy Mr. Edison, aud exhibited at the fair of the American Institute in New York to perforate stencil plates by means of an electro-magnetic writing pen, which has in its hlunt end a sharp point which is continually projected and retracted with a velocity of more than 1,000 times a minute, so that in writing with this pen on paper the lines written consist of a series of holes very close together, and the words written or figures drawn may he seen when holding the paper to the light. The sheet thus written upon forms a kind of stencil plate, and being placed on paper, an impression may be taken from it by simply passing a proper ink over it by means of a printer's roller, when the ink will pass through the holes and make their marks on the paper under it. In this way 1,000 or more impressions may be made from a single stencil-plate thus written hy the electro-magnetic pen.

The oonstruction of this pen is the main featuro of the invention. It carries in its top a small electro-magnet with a revolving har, making some 1,000 or more revolutions per minute; the electro-magnet is connected by means of flexible copper wires to two small cups of a carbon chromic acid battery, while a current breaker on the axis of the revolving bar, interrnpts the current twice at every revotiou, in tho same way as all such machines aro constructed. This axis also carries an eccentric, which gives an upward and downward motion to a har passing throngh the body of the pen and projecting below with the small point mentioned, while this point makes the perforations by the power of the electro-magnet in the top of the pen. We have no doubt hut tbat this small machine will find many other applications besides that of writing circulars, for whioh at present it sooms to be solely intended.

THE largest flouring mill in America, it is said, is owned by Hon. C. C. Washburn, of Minneapolis, Minn. It is seven stories high, and crowded with machinery from top to bottom. Its cost was $300,000, has forty run of hurrs, and turns out 1,000 barrels of flour per day.

The Departing Year.

A year hath passed—e'en as the dial's shade,
That moves so swiftly, silently away,
What fearful changes hath its passage made!
How much of sorrow saw each fleeting day!
How oft has disappointment barred the way
To hope's most eager footsteps—turning back
The weary heart—to go again astray.
Oh! man, thou wanderest on a cheerless track, [slake!
Compelled at bitter streame thy burning thirst to

Within thy narrow scope, departing year,
How oft hath opened the remorseless grave!
While death sat emiling at the sable bier,
In silent mockery of the pangs he gave.
How hath the monster on the ocean wave
Flapped his dark wings amid the awful storm;
Where strove in vain the hardy and the brave!
In joy'e bright halle how many a beauteous form
Hath the stern spectre pierced to feed the grovelling worm!

Theee tell thy history—but tell not all—
A fairer page thy brighter hours may claim;
Thou hadst thy scenee the heart would fain recall,
Sweet, joyous moments, worthy of the name,
O'er which, with sadd'ning spell no eorrow came.
When from his deep dobasement roso again,
The husband and the father, won from shame,
Resolved no more the madd'ning cup to drain,
How great, how eweet the joy, though bought with years of pain!

And such are thine, old year—nor these alone,
Each mouth, each changing seaeon gave its etore
Of rich and varied blessiugs, freely strewn,
To teach man's thankless epirit to adore.
The early epring the hude of promise bore—
Advancing summer her kind influence shed—
And her fair gifte did bounteous autumn pour
In needy winter'e lap. But thou art fled
For aye, to thy dark home with the returnlcee dead.

A Common Sense View of Food.

Something like a "battle of foods" has been going on for some time. Many medical men, neglecting the evidence of their experience, have declared against the common use of non-nitrogenous food as innutritious, although its nses are as paramount in supporting human life as the most highly nitrogenous edible substances. Starch, for instance, has a value as a nntriment like sugar and fat. Of course we know neither muscle nor bone can be made of starch alone, but neither can muscle or bone be accumulated if man or animal be fed entirely upon nitrogenous foods, even though they contain phosphates, lime, etc., in combination. Fed on nitrogenous food alone, death is as certain as on a prolonged continuous diet of starch, sugar or fat. Farinaceous foods are of equal importance in the economy of life, as any other. Such are the teachings of Mr. W. J. Cooper's paper, recently read before the chemical section of the British Association at Brighton, and we must admit his arguments are at all points conclusive. Man does not live by bread or beef, butter or eggs alone. A mixed diet is essential to him. His health, however, depends groatly on the proper admixture and administration of food in childhood or manhood, sickness or old age. Farinaceous substances, such as arrowroot, corn flour, and similar substances, are as valuable foods in their way as any other kind.

In Ireland it is well known that starch furnishes about 80 per cent. of the actual weight of nutriment taken by the peasantry, potatoes only containing some 1½ to 2 per cent. of albuminous matter, and 22 or 23 per cent. of starch, the rest being water. In India, China, Mexico, and some of the South Sea islands, besides other places, nine-tentha of the food consumed by the inhabitants is mainly starch. In England our dietaries are apt to be too nitrogenous, and hence the great value and necessity for aasimilative farinaceous food. That some foods are nitrogenous and others farinaceous is advantageous, so long as no perfect food is known to exist, with the exception alwaya of milk. But Mr. Cooper rightly maintains that it would be as idle to complain of the butcher for not selling vegetables as a proper part of the joint, or the baker for not selling butter with his bread, as to raise objections to these starchy foods, which are the most convenient media for conveying by admixture a wholesome amount of nitrogenous substance, modified according to the requirements of children and invalids, who would otherwise be incapable of assimilating ordinary food.—*London Farmer.*

A True Bill.—Before folks we put on our silken coats in morals and manners as well as in dress; at home we are not afraid of the roughest frieze, and we allow ourselves jags and tags that would disgrace us forever if seen by our more formal acquaintance. Before folks we are careful to please, anxious to charm; where folks are not we throw fascination to the winds, and so long as we are obeyed snap our fingers at esteem. This is a true bill against most of us; the proportion of those who carry into the home the same grace and care as that which they display abroad being so small as scarcely to count at all.

A young mother says that you may always know a bachelor by the fact of his always speaking of the baby as "it."

Woman's Aspirations.

In a series of lectures arranged last spring by the alumni of Rutgers college, New York, Miss Phœbe Couzins, a Bachelor of Laws, was invited to act as the orator on the evening of March 9th, which she did, taking for her subject "The Higher Education of Women." Following is a brief report of her lecture published at the time by the New York *Sun:*

"Gentlemen and ladies," said she, "is it best for the race that uncultured and ignorant women should be its mothers? Women can no longer retain the lily's passive position in the world's great field of action. One hundred and fifty years ago a Massachusetts schoolmaster was publicly reprimanded and dismissed for teaching women arithmetic; and to-day, when she knocks at the door of Columbia and Harvard, the answer comes back in virile baritone, no. It is but a little while since the prevailing idea of a literary woman was that she wore blue stockings, with shoes down at the heel, her husband shirt-buttonless, and her neglected household running wild. Yet the literary woman kept unswervingly onward, and is beginning to occupy her share of the seats in the intellectual kingdom. These same colleges receive all male candidates, be they bright or barely able to wedge in; so their sex is right, the door to learning stands open. It really is not strange that women do not rise faster, when we consider what disadvantages they have to struggle against in dress which entangles their feet and burdens their brains with rats, mice and hairpins. The State of New York has spent sixteen millions of dollars for the education of men and not one for that of women. As in New York State, so in all the States and in all the world. A girl steps forth from a boarding school to wait for a husband, like an oyster waiting for the tide, but not like an oyster, sure of what she waits for."

An old gentleman met Miss Couzins on a railroad near St. Louis and said; "I wish you would give up this foolish notion of running about to lecture, and settle down, have a husband, and be a good housekeeper." Miss Couzins replied. "Barkis is willing; but where's your man?" Woman must marry. Her sphere is the kitchen and cradle, the cook book and Baxter's Saint's Rest. That is the traditional and still accepted notion of woman's duty and woman's place. Miss Couzins longed for the divine word to be spoken that shall reach this dead and buried woman and bring her out. It is not all of life to get married, nor all of death to remain single. The lives of most women are like subterranean rivers, chafing their channels of stone with unheard murmurs.

The Old Man and His Son.—It sounds like the title of one of the spelling-book stories which we used to read 35 or 40 years ago, but it is nothing but a simple, true tale. Father and son live close by each other in one of the towns in this vicinity. The old man had a big barn, and last spring the young one bought all the fancy fowl he could lay hands on and quartered them in his father's barn. He sold not an egg of the multitude laid, but had them all hatched except what were addled, and the number of chickens was like grasshoppers west of the Mississippi. They ate up the beans, until nothing but the stocks were left; they ate up the currants and every green thing about the two houses except the grass and the onions. The old gentleman had trees of nice pears, but the chickens got up in the morning earlier than he, so that he has hardly a taste of them. Even his apples have suffered severely, and the neighbors have wondered if it rained chickens in that part of the town. The old man had put in a half-dozen new cellar windows a week or two since, and those insatiate fowls have eaten off every particle of putty. He is in doubt whether to take his son into partnership, or in the words of H. G., to say, "Go West, young man"—*Newburyport Herald.*

Vice in Reading.—A recent English writer very properly classes the habit of useless and pernicious reading in which many persons now-a-days indulge, with dram drinking, tobacco smoking; all being very injurious and destructive to true manhood. As he well says, reading is not a good thing in itself. If one reads for no object, neither to be made wiser nor nobler, nor to be innocently recreated, he derives no benefit from reading. If he wastes his time in reading, it is as bad as if he wasted it in any other way. How many persons read from mere habit, appearing to derive neither instruction nor pleasure from the exercise! How many spend an hour or more in reading, and then lay the book down with a yawn, and then remark that there is nothing in it, when the fault is as likely to be in their lack of motive in reading, as in the book itself! Novels are often read from a mere habit of idleness. We would enjoin, therefore, upon our young readers always to read with an object for reading, or to do something else.

Home.—That house is no home which has a grumbling father, a scolding mother, a dissipated son, a lazy daughter and a bad tempered child. It may be built of marble, surrounded by garden, park and fountain; carpets of extravagant costliness may spread its floors; pictures of the rarest merit may adorn the walls; its tables may abound with dainties the most luxurious; its every ordering may be complete; but it won't be a home.

Effect of Color on the Sensations.

Having recently achieved the luxury of a new carpet in our sitting room, we are all quite surprised at the effect the accidental but judicious distribution of colors in it has over feelings and sensations.

The quality is the ordinary ingrain, and the pattern a very old-fashioned one, of large, wavy green and bright crimson fern-shaped leaves on a white background, there being but three colors, white, red and green. The effect is one of indescribable warmth and comfort, such as never was experienced before, but is noticed by every one who comes into the room.

This hint is worth attention in the selection of carpets. What the result will be in hot weather remains to be seen. A little judicious selection and discrimination in such cases makes more difference than an ordinary unobservant person would suppose.

The same is true of wall papers, neutral tints, such as buff and violet being much cooler than more positive colors, such as bright crimson, green, etc.

Light colored or white boots make the feet appear larger than black. Longitudinally striped clothing causes the person to seem much taller, while lateral stripes have the contrary effect.—*Ex.*

The Thumb as an Index of Contempt.—Scott says to bite the glove or the thumb was a border pledge of mortal revenge. In England thumb biting was practiced to goad an adversary into fighting. Dekker tells us that St. Paul's walk was notable for shoulderings, jeerings, and biting of thumbs to beget quarrels, and Shakespeare imports the fashion into Verona. When Gregory and Sampson espy two Montague men, out fly their swords; but prudent Sampson, to compel the others to take the initiative, bites his thumb at them, "which is a disgrace if they bear it." Challenged with the question, "Did you bite your thumb at me, sir?" he replies, "No sir, I do not bite my thumb at you, sir; but—I bite my thumb!" and in a few minutes the fray begins. It was not absolutely necessary to put the thumb to the mouth. In 1291 a rude fellow was sent to prison for casting vile contempt upon the clerk of the sheriff of London, by raising his thumb and saying, "Iphurt, Iphurt!" "in manifest contempt of our Lord." If one Neapolitan wishes to anger another, he places the palm of his right hand on the back of the left, and shakes the crossed thumbs, symbolical of donkey's ears, at him; a pleasant bit of pantomime answering to the "taking a sight" popular elsewhere—a sign of contemptuous defiance, said to be at least as old as ancient Assyria. —*All the Year Round.*

Laughing Children.—Give me (says a well-known writer) the boy or girl who smiles as soon as the first rays of the morning sun glance in through the window, gay, happy and kind. Such a boy will be fit to "make up" into a man—at least when contrasted with a sullen, morose fellow, who snaps and snarls like a surly cur, or growls and grunts like an untamed hyena from the moment he opens his angry eyes till he is "confronted" by his breakfast. Such a girl, other things being favorable, will be good material to aid in gladdening some comfortable home, or to refine, civilize, tame and humanize a rude brother, making him gentle, affectionate and loveable. It is a feast to even look at such a joy-inspiring girl, such a woman girl, and see the smiles flowing, so to speak, from the parted lips, displaying a set of clean, well-brushed teeth, looking almost the personification of beauty and goodness, singing and as merry as the birds—the wide-awake birds that commenced their morning concert long before the lazy boys dreamed that the sun was approaching and about to pour a whole flood of warmth and light upon the earth. Such a girl is like a gentle shower to the parched earth, bestowing kind words, sweet smiles and acts of mercy to all around her—the joy and light of the household.

Growing Old.—It is a very solemn thought connected with middle life, that life's last business has begun in earnest; and it is then midway between the cradle and the grave that a man begins to marvel that he let the days of youth go by so half enjoyed. It is the pensive autumn feeling; it is the sensation of half sadness that we experience when the longest day of the year is passed, and every day that follows is shorter and the light fainter, and the feebler shadows tell that nature is hastening with gigantic footsteps to her winter grave. So does man look back upon his youth. When the first grey hairs become visible, when the unwelcome truth fastens itself upon the mind, that a man is no longer going up hill, but down, and that the sun is always westering, he looks back on things behind. When we were children we thought as children. But now there lies before us manhood, with its earnest work, and then old age, and then the grave, and then home. There is a second youth for man, better and holier than his first, if he will look on and not look back.

Scene, an astronomical class: Student (loquitor)—"Professor, when you speak to us of the limbs of the sun and the moon, which are we to understand, that they are arms or legs?" Professor—"We have scriptural warrant for supposing them to be legs. Job speaks of 'the moon walking in brightness.'"

Laziness begins in cobwebs and ends in iron chains.

A Company's Liability for Kissing by an Employee.

In the case of Craker against the Chicago and Northwestern company, the Wisconsin Supreme Court has given its decision. The plaintiff, a lady, took passage on a train on the Madison division, and the conductor of the train, while on the journey, forcibly kissed her. She brought suit against the company in the Circuit Court, and got a verdict of $1,000 damages. The case was appealed, and now the Supreme Court decides as follows, the decision involving some important points:

A master is liable for a wrong done by his servant, whether through the negligence or the malice of the latter, in the course of an employment in which the servant is engaged to perform a duty which the master owes to the person injured.

It seems that the master should be liable in all cases for the servant's wrongful act done in the course of his employment, whether through negligence or malice.

A railroad company is bound to protect female passengers on its trains from all indecent approach or assaults; and where a conductor on a company's train makes such an assault on a female passenger, the company is liable for compensatory damages.

Exemplary damages cannot be recovered against the principal for a wrongful and malicious act of the agent, neither authorized or ratified by the principal.

A verdict of $1,000 damages for the insult offered by defendant's conductor to the plaintiff in this case, held not so excessive as to authorize the court to set it aside.

Answering Letters.—A great many persons in this country are shamefully negligent about answering letters. Nothing is more annoying. In European countries it is regarded as the hight of ill-breeding to allow a letter, which needs a reply, to go unanswered, and so it ought to be considered here. This is a point on which parents should lay great stress to their children. They should be taught to consider it as rude not to reply to a letter which needs attention, as to hand a fork with the prong end. The busiest people are generally those who are the most exact in this respect. The late Duke of Wellington, who, it will be admitted, had a good deal on his hands at different times of his life, replied to every letter, no matter from how humble a source. Once a clergyman, who lived in a distant part of the kingdom, wrote his Grace, on whom neither he nor his parish had a shadow of claim, to beg for a subscription to rebuild a church. By return of mail came back a letter from the Duke to the effect that he should not have been applied to for such an object; but the parson sold the letter as an autograph for £5, and put the Duke down for that amount among the subscribers.

Newspaper and School Educator.—The newspaper is, without doubt, a powerful instrument for good or ill, according to the kind of newspaper meant, but it is no part of its mission to supplant the school. It is the business of the daily journal to print the news, to comment upon the occurrences of the day, and to advocate that which its conductors believe to be the right in all matters of public and general concern. The business of the school lies in a totally different plane. It is its province to train the faculties of boys and girls into ready and accurate modes of action, and, so far as mere information is concerned, to furnish them with a certain technical, elemental, basilar species of knowledge upon which their disciplined faculties may build as upon a foundation wall. The information which the school furnishes, the newspaper does not; that which the newspaper gives, the school cannot and ought not; and hence, even in this matter of giving information, the only one in which there is the least resemblance between the respective functions of the school and the journal, it is resemblance only, and not identity.—*Evening Post.*

The lecturer called upon the theologians among her hearers to deny that it had been women's duty to obey their husbands ever since the plucky and perverse wife, the womanly and noble Vashti, refused to appear before King Ahasuerus and his court after they had been on a drunken spree for seven days. The first cause of woman's subjugation was her physical weakness. The persons that could fight the longest and the fiercest were the nation's rulers. The theory that in woman ignorance was the badge of virtue wrought the downfall of Greece, and will that of America, unless woman is placed side by side in intellectual culture with man. Women have to struggle their way into every department of intellectual and artistic work. Man has had all the advantages to help him, and woman all the disadvantages to hinder her. Miss Couzins advised her young hearers of the Rutgers college if the right man came to accept his hand with dignity, but if not to man the bark of life with courage, and sail with God the seas.

Life is a book, in which we every day read a page. We ought to note down every instructive incident that passes. A crowd of useful thoughts cannot but flow from self-converse. Hold every day a solitary conversation with yourself. This is the way in which to attain the highest relish of existence; and, if I may so say, to cast anchor in the river of life.

Boston has a woman newspaper carrier who is 87 years old.

Sunshine for the Little Ones.

Don't believe that children fly directly out o Heaven into your cradle, although there are mothers who are so certain of it that they are nearly as blighting to the lives of their offsprings as the doleful one who is quite as certain that hers originated in that other less attractive place. There is a medium between these two women where children have a reasonable chance of becoming agreeable and useful members of society. We prefer the hopeful mother, because there are now and then children who are born into the world especially organized to thrive in undisturbed development. There are not many, however. Bnt the other sort, Oh! theirs is a dreary road! The hopeless fretter over possible ills, and the moaning creature who believes that Heaven has forgotten to be good and hopeful, makes her home a place to escape from as soon as her children are strong enough to take flight. They are the cheerless tones of life that wind their discords into the very existence of a little child. If any mother doubts that, she has but to talk to her wee baby in a fretful tone of voice, and she will soon sadden it so deeply that very likely its lips will quiver with grief, and it will burst into hysterical weeping.

If this inflnence is felt by an unreasoning infant, what must be its prolonged effeot upon a child after it comprehends the significance of words that are uttered in tones of perpetual hopelessness? We beseech the mother, who has a tendency to melancholy, to either cure it by sound sense, or hide it from her children. The night side of nature, when manifested in a woman, is as detrimental to her child's mental development, as if the small innocent were set to grow in the cellar. It cannot mature thriftily and healthily in any direction, because nature refuses to conduct herself except upon the strict principles of expausion in sunshine, and contraction and sickness in the dusk; and this same nature does not grant special dispensations to anybody. Domestic sunshine is as absolutely requisite for the little animal in the nursery as for the vegetable in the gardeu.—*Metropolitan.*

THE TEA HOUR.—That interesting hour of the twenty-four is the one looked forward to with most longing and delight, as then every member of the household gathers around the table after the various cares, worries and works of the day are done and the rest of the evening can be devoted to family aud social intercourse. Dinner in this country can only be called tbe business meal; it requires more labor and expense to prepare it, and is apt to be partaken of when the mind is overloaded with business perplexities. At breakfast there are more or less hurry. The mind is bright, clear and refreshed with sleep; the body elastic, strong and eager to encounter the labor and duties that each new day brings forth, and there seems little inclination to think or talk about other matters than such as are immediately connected with business of the outside world; but the tea hour is essentially the family meal, where topics of conversation should be introduced which require a forgetfulness of everything that is disagreeable, personal or selfish. Parents should introduce such subjects for table conversation as will interest, improve and benefit the minds of the younger members of the family. This department, in every number of our paper, will contain matters of interest for all—old and young, and such as will furnish appropriate subjects for conversation and mind culture. There will be but few families that will not be wiser, happier and better by perusing its pages from week to week.—*Ex.*

A SERMON IN A PARAGRAPH.—President Porter, in Yale, gave the following advice to the students of that institution the other day: "Young men, you are the architects of your own fortunes. Rely on your own strength of body and soul. Take for your star self-reliance. Inscribe on your banner, "Luck is a fool, Pluck is a hero." Don't take too much advice—keep at the helm and steer your own ship, and remember that the art of commanding is to take a fair share of the work. Think well of yourself. Strike out. Assume your own position. Put potatoes in a cart, go over a rough road, and the small ones go to the bottom. Fire above the mark you intend to hit. Energy, invincible determination with a right motive, are the levers that move the world. Don't swear. Don't deceive. Don't read novels. Don't marry until you can support a wife. Be in earnest. Be self-reliant. Be generous. Be civil. Read the papers. Advertise your business. Make money and do good with it. Love your God and fellow men. Love truth and virtue. Love your country and obey its laws."

WHY HE DIDN'T GET MARRIED.—An old bachelor in Maine has been deterred from committing matrimony in a novel way. Thinking over the subject seriously, and particularly the expense of maintaining a family, he set the table in his lonely abode with plates for himself and an imaginary wife and five children. He then sat down to dine, and as often as he helped himself to food he put the same quantity on each of the other plates and surveyed the prospect, at the same time computing the cost. The result of his examination was so discouraging that he resolved not to marry.

A NEW YORK man having christened his daughter Glycerine, he says it will be easy to prefix nitro if her temper resembles her mother's!

Young Folks' Column.

Story of a Bear.

Bears are not generally regarded as very cunning or smart; but that they do sometimes rise to something like smartness is shown by the following story which is told by the Sonoma *Democrat*:

Parties engaged in trapping bears had suspended a bait at such a hight from the ground as to be within easy reach of a bear. Immediately under the bait a slight excavation was made in the grouud, in which was placed a steel trap covered with leaves; a passing bear discovers the bait; goes for it; and walks into the trap.

On the occasion in question a solitary bear, sorely pressed by hunger, sallied forth on a nocturnal foraging expedition. Happening along where the trappers had hung the tempting bait, Bruin at once proceeded to appropriate it. In attempting to get the bait he unfortunately sprung the trap, the consequence of which was the loss of two or three toes. He limped back to his den a sadder, and as the sequel will show, a wiser bear. Returning on the following night, his late mishap still fresh in his memory, his bearship instituted a searching investigation into things in general, which revealed the tact that the trap was again set, whereupon, goaded by hunger and remembering the little unpleasantness of the previous night, he seized the trap and dragged it to one side. Having now nothing to fear from the trap, he gobbled up the bait and marched off triumphantly. Tbis little trick was repeated a number of times. The bear is still at large.

Look Ahead.

Now that the end of another year has been reached, would it not be well for our youthful readers to look ahead? Men and women generally look back over the past, and if careful and discreet, they note their mistakes and try to avoid them in the future. Boys and girls have only their childish pranks to look baok to, aud it is generally a pleasure to do so, but the future to you is a grave reality, and iu it you are to make yourself useful and make yonr mark in life or leave the evidence of a life spent in vain.

It is astonishing how soon boys and girls of twelve to fourteen years of age ripen into men and women and enter actively on the stage of life. At that age they are generally at school, or should be, and are beginning to appreciate an education, but in after years they will appreciate it still more. We beg of you, reader, to apply yourself every moment to the best advantage. Soon you will manage the farm or house for yourself; notice carefully all that pertains to your future occupation. No life is so free from all that is wicked and so free from risk of means as the farmer's life, and no life affords so much solid comfort and assurance of a reasonable competency. With the girls no home offers a better field for providing little comforts, and developing into inuocent, healthful womanhood than yours. Be content, then, boys and girls, and strive to improve yourselves and make your home happy with a view of enjoying it in a long life of nsefulness.—*Ex.*

Origin of Tobacco Chewing.

We regret to see that some, even very young boys indulge in the habit of tobacco chewing. It is a very filthy and pernicious habit, one against which we would warn all boys. And just here we will tell a story about the origin of tobacco chewing that is not generally known.

The weed was found, as most of you are aware, in use among the Indians on the discovery of America. Centuries ago, according to the tradition, Indians on this continent worshipped devils. Indian priests got drunk on tobacco smoke, and in this state they held communion with their deities, and when the fit of intoxication passed, they would make known to the savages aronnd them the responses of their deities. So Columbus took a specimen of it with other curiosities of the country to Spain, and afterwards more was shipped, and in three oenturies it had spread all over the civilized world. Alas for the world! they were better off without it—for it has brought sickness, ruin and death to hnndreds of thousands. Remember its mean origin and shun it.

A SMART GIRL.—A country lass was driving a donkey to a fair in Renfrewshire one summer morning. The donkey was a laggard, and was more intent on cropping the roadside herbage than "going to the fair;" but the girl did not put herself out. Pleasant thoughts of her sweetheart were passing through her mind, and she sang gaily to herself. An Irish laborer overtook her, and, as he passed he said, "My darlint, you're as lively this morning as if you had been newly kissed." The happy girl at one answered, "If ye think, Pat, that a kiss makes one lively, I wish ye would kiss my donkey, for he's unco' stiff this morning!"

A SUNDAY school teacher, wishing his pupils to have a clear idea of faith, illustrated it thus: "Here is an apple—you see it and therefore know it is there; but when I place it under this teacup you have faith that it is there, though you no longer see it." The lads seemed to understand perfectly, and the next time the teacher asked them, "What is faith?" they answered with one accord, "An apple under a teacup."

Good Health.

Prevention and Cure.

It is astonishing, to say the least, that everywhere "cure" is recognized before prevention. The old adage "an ounce of prevention is worth a pound of cure," seems to have been forgotten, or at least disregarded by the mass of humanity. Men will search throughout the range of the whole pharmacopœa, and cast about them all their lifetimes for some chemical or vegetable compound which shall be an effectual cure for some of the "ills which flesh is heir to," while if they should spend half the time in looking for the cause and prevention of this disease, the sufferings of humanity would be mitigated to an incomparably greater degree. And when such a medicine is found, it very seldom affects a cure. Even when the causo and prevention are known, men seem to overlook the fact that the suffering consequent upon the exertion and self-denial necessary for prevention of disease is less than that which follows the neglect to apply the preventive. This substitution of cure for prevention seems to hold precedence where civilization is highest to a greater degree than among less enlightened nations. And why is this? Among barbarous nations more attention is paid to prevention, and the few remedial agents used are simple, and seldom effectnal in themselves; whereas, in civilized countries the greater knowledge of science induces men to search more extensively for new and better curatives, and as more and more scientific discoveries are made, the medical field becomes wider and wider. And thus, in this rush after new medical discoveries, the laws of prevention of disease have been overlooked, and left far behind.

Now, viewing this matter as one of the greatest importance to the human family, the next step is to consider how it may be brought to the attention of the mass of the people. The medical men, as a class, do not do it, although it is their legitimate business, because it would not be for their pecuniary interest. But there is one other resource, and one which is adequate to the task. Let the press take hold of the work, and after clearing its pages of all medical advertisements, in their place let it elucidate the common rules and principles of health, and point out the causes of sickness and disease and the methods of prevention, and by so doing it would lose nothing, pecuniarily or otherwise. Let this be done, and the day is not very distant when the swindling practice of the multitude of quacks with which the country is swarming will be at an end, and the people, stronger, both physically and mentally, will adopt for their motto, "moderation in all things."—*Cor. Phrenological Journal.*

BORAX IN COLDS.—A writer in the *Medical Record* cites a number of cases in which borax has proved a most effective remedy in certain forms of colds. He states for a sudden hoarseness or loss of voice in public speakers or singers, from colds, relief for an hour or so, as by magic, may be often obtained by slowly dissolving and partially swallowing a lump of borax, the size of a garden pea, or about three or four grains held in the mouth for ten minutes before speaking or singing. This produces a profuse seoretion of saliva, or "watering" of the mouth and throat—probably restoring the voice or tone to the dried vocal cords, just the same as "wetting" brings back the missing notes to the flute, when it is too dry.

TO OBSCURE SCARS.—To obscure, boil in three quarts of water one pint horseradish, four ounces pulverized alum, and four ounces rock salt. When cold, wet pieces of thick lint therewith, and apply frequently. This will harden and thicken the skin. Persevere for some time, and the effect is certain. On going among friends, dull the shiny appearance by bathing it with a little spirits of hartshorn in water. The first named preparation is best when made newly; it gradually loses pungency and effectiveness, and so when weak must be renewed. With time and care, as above, the redness and peculiar appearance of scars will largely diminish. The person should carefully avoid all irritation of the parts.

BUILDING GROUND.—We want more of a dry earth system. Perfect under-drainage is the first great need of most cities and large towns. Regulations of cellars, and of all other holes below the surface, is the next great study. The proper airing of all sub-structure, because of its proximity to the grounnd, comes in next for consideration. What can we do to sweeten or purify surface-soil already formed, is another point. The great question of what to do with all refuse so as to keep it out of city soil is the large and momentous subject which must ever present itself to our attention.—*Public Health Association.*

A FATAL KISS.—The Albany *Argus* says that Miss Kate Noyes, of Lansingburg, is in a critical condition from poison, arising from kissing her deceased niece, who died of diphtheria. The young lady had a slight sore on her lip at the time. A swelling commenced in her lip, which soon extended to the nose, and it is feared the difficulty will reach the brain.

MR. GEORGE R. LABAU, 111 years old, as distinctly shown by the records of his christening, attended the State fair at Easton, Pa., last week. The old man is talkative and intelligent, has a fine chest, shows little emaciation. and can do considerable work without fatigue.

Domestic Economy.

The Art of Frying Fish.

Several kinds of fish are fried when small, such as small trout or troutlets, carps, tench, sun-fish, pike, pickerel, flounders, white-fish, black and blue fish, perch, porgy, weak-fish, herring, bass, and the like, and smelts, which never grow above the frying size.

When fish or anything else is cooked in a frying-pan with just fat enough to prevent it from burning, it is not fried but *sauted*, there being two very distinct ways of frying. To fry means to cook fish or something else immersed in boiling fat. To *saute* means to cook fish or something else with just fat enough to merely cover the bottom of the pan; for instance, small fishes are fried, but omelets are *sauted*; potatoes are fried, but parsnips are *sauted*.

Many inexperienced cooks make mistakes on that account; they read in some cook-book that such an article of food is good fried, and set to frying it when it should be *sauted*, and *vice versa*.

The fat skimmed from the surface of broth, which is beef-suet, the trimmings of steaks or roasting pieces of beef melted as directed below, are better for frying purposes than lard, not flying all over as lard does.

The fat skimmed from trimmings or from around the kidneys of beef is cut in small pieces, put in an iron pot, and set on a rather slow fire. As soon as it begins to melt, ladle off the melted part and turn it into a stone or crockery jar, which you cover when cold. Put it away in a cool, dry, and dark place. A careful cook never needs lard for frying purposes, but has aways more fat than is necessary out of boiling or roasting pieces, and that skimmed on the top of broth, sauce, and gravies. Some cooks will not take the trouble to melt it when the mistress allows as much lard and butter as is asked for.

It is an error to believe that by using much fat to fry, the articles fried will taste greasy; if there is not fat enongh in the pan to completely immerse the objects fried, they will certainly taste greasy. It will be the same if the fat is not heated enough. It is heated enough when jets of smoke ooze out of it, or when, on throwing drops of water on it, it makes a crackling noise.

When the fat is hot enough, the article that is to be fried is dropped into it, and stirred gently now and then with a skimmer. When done, it is taken off the pan with a skimmer and turned into a colander, which should rest on a dish or bowl to receive the fat that may drop from it.

If the article to be fried is not completely immersed in the fat, the part not immersed will absorb fat, and, as stated above, will be greasy; but if there is fat enough to cover it entirely, the intensity of the heat closes the pores, carbonizing the exterior of the article, as it were, and preventing it from absorbing any fat.

If the articles to be fried be tender and somewhat brittle, they are put in a wire basket or perforated double bottom made for that purpose, and the basket is plnnged into the fat. The basket is raised when the articles are fried, and held over the pan to let the fat drop; they are then taken carefully out of it, placed on a dish, sprinkled with salt, and served hot.

When the frying is done, the pan is put away for a few minutes, to allow the particles of solid matter that may be in to fall to the bottom of the frying-pan; then it is turned into the jar, gently and slowly, so as to retain those particles in the bottom and it is put away for another time.—*Prof. Blot.*

TO PRESERVE BREAD FOR LONG PERIODS.—Cut the bread into thin slices and bake it in an oven, so as to render it perfectly dry. In this condition it will keep good for any length of time required, and without turning moldy or sour, like ordinary bread. The bread thus prepared must, however, be carefully preserved from pressure, otherwise, owing to its brittleness, it will soon fall to pieces. When required for use it will only be necessary to dip the bread for an instant into warm water, and then hold it before the fire till dry, after which butter it, when it will taste like toast. This is a useful way of preserving bread for sea voyages, and also any bread that may be made too stale to be eaten in the usual way.

FRENCH PANCAKES.—Half a pint of milk, two ounces of butter, two ounces of loaf sugar, two ounces of flour, two eggs. Put milk, butter and sugar into a saucepan to dissolve (not boil), beat eggs and flour together till quite smooth, then add the other ingredients and mix well. Divide this quantity and put it in four saucers to bake for twenty minutes; lay two pancakes on a dish, spread preserves over, and cover with the other two pancakes. Serve hot.

OXFORD DUMPLINGS.—Mix well together the following ingredients: Two ounces of grated bread, four ounces of currants, four onnces of shred suet, a tablespoonful of sifted sugar, a little allspice, and plenty of grated lemon peel. Beat up well two eggs; add a little milk and divide the mixture into five dumplings. Fry them in butter a light brown color and serve them with sauce.

CRISP MUFFINS.—One pint of sifted Indian meal, one pint of milk or cream, two eggs, a teaspoonful of salt, a spoonful of butter or lard. Drop the batter in a hot, greased pan or oven, by spoonfuls, taking care that your muffins do not touch. Let them bake till crisp and brown.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Prompt Subscriptions.

We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, January 8, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Mountain Lands; The Mining Debris Question; Grain Yield; Golden-Winged Wood-Pecker, 17. The Year and the State; What the English Grain Growers Expect; Carp Culture; The Dairy in California; Eucalyptus from Cuttings, 24. Patents and Inventions, 28.

ILLUSTRATIONS.—Golden-Winged Woodpecker, 17. Chestnut Grafting, 25.

STOCK BREEDERS.—Camels in Nevada, 18.

POULTRY YARD.—Cures for Ails; Magnitude of the Poultry Interest in the United States, 18.

SHEEP AND WOOL.—The Big Fleece, 18.

USEFUL INFORMATION.—A Novel Device; The Origin of Mahogany Furniture; Ebonite; Rosin, 18.

BEES.—How the Bees Fill a Hive, 19.

PATRONS OF HUSBANDRY.—The PRESS and the Granges; From the Granges; Strawberries; Re-elections; Lady Officers; Election of Officers, 20-21.

AGRICULTURAL NOTES from various counties in California, Oregon and Montana, 21.

HOME CIRCLE.—The Departing Year (Poetry); A Common Sense View of Food; A True Bill; Woman's Aspirations; The Old Man and His Son; Vice in Reading; Home; Effect of Color on the Sensations; The Thumb as an Index of Contempt; Laughing Children; Growing Old; A Company's Liability for Kissing by an Employee; Answering Letters; Newspaper and School Educator, 22. Sunshine for the Little Ones; The Tea Hour; A Sermon in a Paragraph; Why He Didn't Get Married, 23.

YOUNG FOLKS' COLUMN.—Story of a Bear; Look Ahead; Origin of Tobacco Chewing; A Smart Girl, 23.

GOOD HEALTH.—Prevention and Cure; Borax in Colds; To Obscure Scars; Building Ground; A Fatal Kiss, 23.

DOMESTIC ECONOMY.—The Art of Frying Fish; To Preserve Bread for Long Periods; French Pancakes; Oxford Dumplings; Crisp Muffins, 23.

ARBORICULTURE.—Almond, Chestnut, Walnut and Filbert, 25.

HORTICULTURE.—Fruit Growing; Bananas, 25-28.

MISCELLANEOUS.—A Machine for Darning Stockings; Practical Spiritualism; Softening and Toughening Wood, 18. Agriculture in the Public Schools, 19. Prizes in Industry; An Improved Barrel; Sharpening Edge Tools; Breaking Weights, 26. Mass Meeting in Relation to Mining Debris, 28.

NUT GROWING.—We call attention to the excellent article on nut growing to which we give prominent place and illustration this week. It is a careful review of the subject, very interesting to the general reader, and so minute in its detail that it amounts to a practical treatise upon the subject. The readers of the RURAL PRESS will thank Mr. Gillet for his entertaining and instructive paper. We have received the filberts to which allusion is made in the article. They are fine specimens, and we would be happy to show them to any one who is interested.

BEE TREES.—In an article on the "Rental Question," there was a typographical error which obscured the sense. The query should have read as follows: "What is the law in this State in regard to cutting *bee-trees* on land owned by others?"

RAINFALL.—Dr. Thos. M. Logan, Secretary of the California State Board of Health, informs us that the total rainfall for the month of December in Sacramento was 5 525 inches.

CHOICE VARIETIES.—We would call the attention of our readers to the new advertisement of Felix Gillett's, in to-day's issue.

ON FILE.—"Grapes and Wine," T. L. G., Yountville; "Opium Poppy," W. A., San Jose; "Poland Chinas," F. W. G., El Monte.

The Year and the State.

To one who hopes, believes and works for the progress of this State in prosperity and general advancement, it will be a satisfaction to review the record of the year just closed. It will be thus because the year has brought the State a good step onward. Its accomplishments, when they shall be fully gathered into the tables of the statistician, will show that 1875 is entitled to the place which we wish for it in the swift and enduring progression by which our commonwealth is advancing. It is true that in market values for some staple products the summary of the year did not prove all that the agriculturist had hoped, nor were the returns from the soil quite all that was expected, but now, as we stand almost in the foreshadowing glow of a coming peerless harvest, we can afford to think rather of the good fortune and comfort which have generally prevailed and note with pride the wide growth which has been secured by our noble industries. Let us look for a few moments at the signs of general prosperity and advancement.

The State has survived a most trying financial crisis and its monetary institutions have regained the confidence of the world; confidence all the more salutary because of the events which would rather lead to withholding it. But now the treasure of the State, its financial name, shines the brighter because of the fire which has tried it. General soundness is acknowledged because it has been proved that nothing but soundness existed.

In the development of the mineral wealth of the Pacific slope the year has done nobly. The aggregate yield of precious metals is shown to be $80,889,037, a gain of $6,487,982 over 1874, and 1874 produced a record better than any year before it.

In agriculture, the grand industry which now lies at the basis of the prosperity of our State, the year 1875 shows an achievement in the several staples of production of which we may well be proud. The receipts of these products in the markets of this city serve as a trustworthy guide by which to estimate the general results.

During 1875 there were received at this port 7,676,007 centals of wheat and 467,719 barrels of flour. The export trade of our State during the year in wheat and flour reached a value of $16,567,295. In barley the receipts at this port were 987,793 centals, and the exports 125,158 centals. In oats the receipts were 248,207 centals and the exports 5,373 centals. These are very creditable figures considering that the season was not fully favorable to the California grain grower. But they are good to remember and be proud of until the unequalled promise of 1876 redeems itself in startling figures.

To the wool interest of our State there has come a most gratifying growth during recent years. It is being discovered that new sections are admirably adapted to sheep husbandry, and the practice of it is golden in profits. Notwithstanding the drouth of the season, which led to a reduction and removal of the flocks, there was produced 43,352,223 pounds of wool, which is a gain of more than 4,000,000 pounds over the previous year. When we consider the favorable prospects in the sheep ranges of the State, and the apparent disposition to increase the flocks to meet it, there is in wool, as in grain, the promise of unusual figures for the Centennial year.

Aside from these staples, which appear upon the commercial records of all nations, there has advanced here during the year a hundred specialties of production which statistics do not mention. We refer to the whole embodiment of the progressive spirit in agriculture, which is turning every sunny valley of the State into a garden, an orchard or a grove; which is peopling our pastures with the valuable nobility of the productive animals; which is restocking our living waters with more abundant life; which is searching far and near over all the climates of the earth for useful growths which can be nourished by our deep breasted sun, and made to assume new forms and excellencies; which is condensing the glories of a world within the boundaries of a State, until every good thing shall find a home in California.

The year has brought us new neighbors no a few. Some have come to join us without the strength and spirit to engage with us in the active inspiring work of developing this grand region, and have returned again to the close embrace of the Eastern fronts—whence they never should have departed. The statistics of passenger arrivals, by land and sea, during the year, show that of the 107,599 persons who came to us, 66,172 remain with us to-day. For them we have no word but of cheer and encouragement. If they labor with us intelligently and zealously they will have their reward in comfort, prosperity and competency, as their several deeds shall command.

No paragraph with reference to the industrial interests of our State would be complete with mere mention of material embodiments. With our growth in production and in trade there has steadily advanced the spirit of enlightenment which inspires them. Our industrial classes, especially those of them noblest and best, the agriculturists, have had active brains as well as busy hands during the twelve-month which has passed. They are perceiving their power for the right and are exercising it. They are becoming more and more conscious that, in knowledge, knowledge of each other and of the subjects pertaining to their welfare, is the secret of righteous power. It is this, as well as copious rains, which promises prosperity. It is this which makes us confident of the future.

Carp Culture.

A little more than three years ago J. A. Poppe arrived in this State from Rhinefeldt, Holstein. A part of his baggage was a lot of small carp, five in number and six inches long. He began at once a system of carp culture, following the experience of the German carp farmers. He put his five small carp in the water at Sonoma, in August, 1872; one dying and four surviving in the new habitat. In the following May the fish had grown to sixteen inches in length and had given life to three thousand young fish. Since that time these fish have grown rapidly, and Mr. Poppe assures us that he finds sale for all his marketable fish at one dollar a pound. Mr. Poppe is at present desirous of extending the business of carp culture among those who have facilities for it, and is prepared to furnish the stock for beginning. He sends us the following items concerning the practice:

In Germany thousands of pounds of this favorite fish are raised and sold every year. The farmers there who are engaged in pisciculture have from five to seven ponds. The smallest is the breeding pond, from which the others are stocked. The contents of one pond are sold every year. Numbers of fish are floated down the rivers and canals in large boxes pierced with holes, through which the water passes in and out, thus delivering the carp to the consumer alive and fresh. They are a fish that need but little attention, are hardy, prolific, and do excellently on this continent. Their food may consist of wheat, barley, corn, peas, bran, blood, sour milk, or in fact almost anything. When well fed they will grow one inch per week for the first two or three months, after which they will grow slower in length but increase rapidly in weight. It will not do to breed them in ponds where any game fish are kept, as they will eat the young carp.

Farmers who have natural facilities on their places for making ponds, and who have access to canals or rivers communicating with large cities, can greatly increase their income with but small trouble and expense. There ought to be one person in every county who would raise choice carp as stock fish to sell to others to fatten for their own tables. It would be a cheap but sumptuous food, and at the same time very convenient, as they are ready to be eaten at all times of the year.

What the English Grain Growers Expect.

It will doubtless be interesting to California wheat growers to know the disposition with which their English brothers look upon the price which is offered them for their grain, and their opinions concerning the prospects of the next few months. There is general dissatisfaction among the English farmers concerning the result of the year in wheat. One farmer said to the London *Agricultural Gazette*, from which able paper we shall draw freely to give our English view of affairs. Said he: "My forty acre field owes me £200 more in wheat than it gave me, for my tillage, rent and manure," and the *Gazette* believes many more such debits must be written against the land. In many districts the yield has not been equal to the local wants, and the country millers whose wind and water-mills have been supplied with grain from the near-by fields, and who have rarely used imported wheat, were buying at all the port markets during the first half of last month. It is such a condition of affairs which, with apparent logic, makes the holders of English wheat firm and expectant of value advancing during spring and summer. On the other hand it is said that the buyers of wheat, although they need much, find over much offered them from the granaries at the ports, or from supplies on passage or ready for shipment. It was difficult to tell at the time our contemporary wrote, which of the opposing influences would prevail during the closing weeks of the year; but the English producers were generally confident that, owing to the early close of navigation in some of the water courses whence foreign supplies are drawn, the advance which they expect to realize would not be delayed so long as usual. Of course, the belief of our English brother producers may be fallible, but it is strengthening to know that their best judgment leads them to such an opinion.

THE mortgage tax question has not yet been decided by the Supreme Court. The case is to be argued on the 12th inst.

DELMONICO, of New York, is to have the main restaurant at the Centennial. It will be a magnificently fitted up.

The Dairy in California.

There is a need now, in the advance of agriculture on this coast, that more attention should be paid to some of what may be called the lesser arts of production. One of these is dairy manufacture. So long as butter and cheese can be profitably freighted across the continent to fill the demand for these articles in our markets, it cannot be doubted that a greater quantity of them may be produced here profitably. While we maintain our State as best fitted for the sustenance of dairy stock, we are at the same time going three thousand miles to buy cheese and butter. This ought not so to be.

It is not that we do not make good dairy products, but we do not produce enough to supply the demand. The result is that money goes to the East to support dairymen there which should go into the hands of home producers and assist in the development of our State and the enriching of our own citizens. The lesson is for producers, because to them is the reward outheld.

It is true that dairying in this State is a growing industry. The figures for 1874, as issued by the Surveyor General, showing a production of 5,822,091 pounds of butter and 1,722,398 pounds of cheese, indicate large quantities, but so long as the market uses these and calls for more, it is the duty of the wise producer to furnish it. The market is the producer's guide and compass. He should mark well its teachings.

We expect an advancement in dairy husbandry in this State, which will put the present condition of the industry far in the shade. We expect the industry will grow and prosper here as it has at the East, making rich those who have devoted their energies to its practice, and restoring soils which rigorous cropping has reduced. We do not expect that this growth will follow the same lines by which advancement has been gained at the East, nor do we believe that success can be gained in all cases by copying Eastern methods. The dairy future of California must be developed by our own dairymen. They must devise their own methods, because conditions here call for special treatment in some respects. But there is one secret of success and advancement which is applicable everywhere. It is that dairymen make their practices the subject of constant study, and search for means of improvement always. Consider no success complete, but make it the basis for fuller understanding and better work. This method of advancement has prevailed at the East. It has been fostered by able dairy writers and experimenters, and by associations, where experiences can be related and practices criticized. The result has been a general progress in dairy knowledge, and the reward has been fuller returns for the work required.

Not otherwise must dairy success be here on this coast. The new conditions in soil, in air, in water and in the markets, must all be studied by our dairymen, and united effort will result in a great advancement of special knowledge and improvement in practice. To this end it is the aim of the RURAL PRESS to labor without ceasing in its Dairy Department. We shall present each week topics of fresh interest, embracing all the steps of dairying, from the growth of feed in the pastures upward, through the improvement of dairy stock, the treatment of milk to gain the best product, and finally the lessons which the markets reflect upon the production. To the fullest success in this endeavor we ask the aid and co-operation of all our readers. We ask them to write us freely concerning what they are doing and how they do it, and always to feel at liberty to give us their comments upon all points advanced. Thus, a spirit of interest will be awakened among all our dairymen, and thus will strength be gained to supply the increased production which the market demands.

Eucalyptus from Cuttings.

MESSRS. EDITORS:—I frequently read articles in your valuable paper relating to the propagation of the favorite eucalyptus, but have never chanced to see a statement of the tree having been grown from the cutting. We had the curiosity about a year ago, while setting out some trees which we had raised from the seed, to put a cutting in the ground near the tree from which it was taken. The result is satisfactory. We have a tree six feet in hight, and growing rapidly at the present time. This may not be new to some of your readers, but as we have spoken of it to many who are interested in the tree business, and have found no one who has tried the experiment or heard of it, we venture this note. H.

Napa, Dec. 28th.

[The matter which our correspondent mentions is very interesting and worthy of note. The advantage of growing the tree from the cutting does not, however, clearly appear, as the seed is very abundant, and as great growth can be gained in the same time from the seed as Mr. H. mentions as the result from his cutting. We shall be glad to have his further observation on the subject, as to how the future growth compared with trees from the seed, and whether the tree is as shapely.—EDS. PRESS.]

ARBORICULTURE.

Almond, Chestnut, Walnut and Filbert.

MESSRS. EDITORS:—Among the numerous productions of our wonderful State, which are so varied that they keep the whole country and outside world in perfect amazement, stands foremost that of fruit. But if a great deal of attention has been given to grapes, apples, oranges and the like, I must say that the nut business has been neglected; either that people did not expect nut raising to pay, or else they would not have the patience of waiting so long for a crop to repay them for their labor. The RURAL PRESS, let it be said to your credit, has from time to time called people's attention to the raising of nuts of all kinds as a profitable business, and lately many almond and chestnut trees have been planted throughout the State; and when we take into consideration the fact that the nuts consumed on this vast continent, chiefly almonds, English walnuts, French chestnuts and Italian filberts, are all imported, and that this State is so admirably adapted to their production in inexhaustible quantities, we need not be afraid of lacking a market for all the nuts of this description that our bountiful soil and beautiful climate enable us to raise. I hope, therefore, that the information I can give your readers on the nuts' culture will be welcomed by them. I will first speak of

The Almond.

The almond tree, *Amygdalus communis*, is a native of Asia, and a tree of ordinary size, with a tap root. The soil must be deep, light and warm for its growth. The fruit of the hard-shell variety is only used in propagating the almond, soft or hard shell. In the nursery the almonds are planted two feet apart, and the trees budded when big enough; cleft grafting, as with the peach tree, not succeeding at all. When the soil is too rich and moist, it is better to bud the almond on the plum.

There are three distinct varieties of almonds, the hard-shell, ordinary soft-shell or Languedoc, and Princess, or paper-shell. The Languedoc is soft enough to be cracked with the teeth, provided that the latter be not too shaky; but the Princess variety has a very thin shell so soft that from it, it derives its name of Princess, for her delicate fingers will not be hurt by cracking the nuts with them. If taken to market and sold in their shells by the pound, the Languedoc variety would pay the best.

It will not be out of place here to say that peaches and nectarines ought to be budded on the hard-shell almond, instead of the peach or plum.

The Chestnut,

Or *Castanea vesca*, a native of Europe, is a regular forest tree of immense size, with a tap root like the conifers. This magnificent tree will thrive best in a deep sandy, granitic or light soil. It is propagated through the sowing of its nuts and grafted when big enough. The chestnut tree requires a great deal of space, not only because of its gigantic dimensions, but because branches that do not have much of air and space will bear no fruit. Let every one planting chestnut trees bear that in mind.

The chestnut tree must be cultivated as a standard tree with a head six feet from the ground. Every sucker branch must be taken off at the very time the tree is shaping its head, so as to give the main branches a chance to throw out quicker. Weak branches have to be cut off too, when the tree is young; it will give the others more strength. It is very important, in fact, for young trees to so mold their future shape when it can be so easily done. The nuts kept for planting have to be put in sand in a cellar till March; they are then planted three inches deep (I mean those large French or Italian chestnuts), and two feet apart both ways. Where, however, the ground is free of gophers and field mice, and frosts not to be feared, chestnuts might with advantage be planted in the fall of the year. When the chestnuts are put in sand during the winter, people have to be careful when planting them the ensuing spring not to pinch off that little sprout already out on some of them, and which will constitute the future tap root. If planted in a place well exposed to winds, they have to be "earthed up" by throwing dirt all around the foot of the tree, their heads having to be high, and the trunks of the trees being yet too slender. Chestnut trees must be set out from fifty to sixty feet apart; if one is desirous to get a good crop of nuts and of good quality, it is most essential to give the chestnut tree air and space.

There are two distinct races of chestnut, subdivided in varieties; the common chestnut, named in French *chataigne*, obtained from the seed proper, and the *marron*, obtained from the graft. The latter is twice as large as the former, round, and fills up all alone, or with another nut only, the burr; while the *chataigne* or seedling chestnut is a good deal smaller, the burr containing at least three of them, which makes them flat on each side. Another advantage with the *marron* is that the inner skin comes off very easy, but it does not with the *chataigne*. The varieties of *marron* most in use are the world-renowned *marron de Lyon* and *marron Combale*. The former is the largest of all, bnt the *Combale*, though large, too, is more productive. Those two splendid varieties I have imported from France five years ago, and the trees are growing up splendidly here.

I have succeeded very well in grafting the chestnut, and for the benefit of your readers I will describe the best method of doing it. In large fields where the trees are planted so as to cover hundreds and thousands of acres,

Circular Budding

or Jefferson grafting as it is called, is most generally used. To succeed in this graft, the sap must be well up; a circular ring of bark is taken off from the stock, as shown by Fig. 1, which operation is done by the aid of a budding knife, by running two circular cuts around the stock, a few inches above the surface, and a longitudinal one between the two circular cuts, the ring of bark taken off having the appearance of that in Fig. 2. This ring must be at least one inch wide by two inches at the most. A like ring of bark is taken off in the same manner from a scion of the variety to be grafted, and from a branch of the year, or preceding one, well in sap, and having exactly the same diameter as the stock. This ring should have on it one or two buds. It must fit exactly the space (*a*) seen on Fig. 1 and more particularly at the lower circular cut (*b*), so that both barks will exactly unite at that point. When the ring is too long, a little bit of it might be cut off with a very sharp knife till it fits well; if the ring is too wide, a longitudinal strip would be cut out, and if too narrow, such a strip, with a bud on, so much the better, would have to be used to fill up the empty space. One must be very careful while drawing the knife around the stock not to go too deep into the wood, so that the bark only will come off and the *cambrium* or inner bark be left intact. Then, as experience has shown me already, if the knife is drawn too deep into the stock, (and the case is still worse with walnuts which have considerable of pith and a very thick bark), they are liable to be broken in two right below the lower circular cut by either wind or the weight of the stock's head. I have to use little stakes for walnuts,

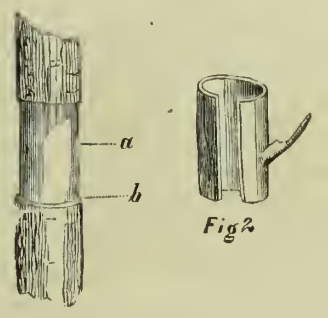


Fig 2

Fig. 3.

Fig 4.

CHESTNUT GRAFTING.

so as not to meet with such accidents. After the circular bud is in place, it is well to wax it all round, letting only the bud out; the best thing I know, by the way, for waxing up grafts is a soft mastic used in the nurseries of Europe, which is applied with a spatula and hardens nicely and smoothly very quick. I will call the attention of people that have much to graft to this handy, clean composition, which does not need to be warmed up or applied with the fingers. Some, instead of mastic or wax, use pipe clay mixed with cow manure, and it is not so very bad, considering how hot are our summers In the department of Ardeche. (France), where are immense plantations of *marron de Lyon* and *Combale*, this kind of grafting is resorted to in this way: circular rings of bark with one to two buds on are taken off from the scions at night by either men, women or children, and put back in their place, the scions being then placed in a cool cellar till next day; the men that do the grafting take along those scions and save time.

This circular budding or Jefferson grafting has been named so in honor of Thomas Jefferson, one of our best Presidents, and who, after handling like a sage the helm of State, handled like a man the plow. This circular budding is done through the summer and fall—the top of the tree being cut off the ensuing spring two or three inches above the budding. It is the strongest of all grafts, and may be very well used for other trees than chestnuts and walnuts. There is another way of grafting by a circular ring of bark; it is called, in French,

Whistle Budding.

It is done in the spring, when the sap is well up. The head of the stock is first cut off, several inches above the ground, and a circular ring of bark, from one to two inches long, is taken off, as represented in Fig. 3, and a like ring as represented in Fig. 4, is taken from a scion and inserted on the stock, with the same precautions as with the preceding graft, and waxed all around. It is very extensively used, too, for grafting hard wood varieties, as chestnut, fig and the like. The Jefferson grafting has the advantage over this "whistle grafting," because, if it does not succeed, the tree might be grafted some other way in the spring.

The chestnut tree can very well be grafted in the spring, as I did, with cloft grafting. But I will say that it is much better to have the scion of the same size as the stock or branch which is grafted, though I succeed well enough in grafting scions of a smaller diameter than the stock. The nurserymen, in France, generally graft the chestnut and the cherry, too, with cleft grafting, right at the head of the tree and not at the foot. My *marron de Lyon* and *marron Combale* are so grafted.

A fine chestnut tree, in full bearing, yields from 100 to 140 pounds of chestnuts a year, which, at twenty-five cents a pound, wholesale, would make from $25 to $35 per tree. Not so very bad a yield.

To gather chestnuts people have to wait till the burr falls to the ground, and then men or boys, armed with a little wooden mace or club, break open the burrs and gather the chestnuts into bags. The chestnuts are placed under a shed, where they may be kept for a month or two. The wood of the chestnut tree keeps pretty well in water.

The Walnut,

Or *Juglans regia*, is a native of Asia, but cultivated in Europe from time immemorial. It is a fine and very large tree, kept both for its fruit, that makes a rich oil, and its wood, much used by cabinet-makers. The walnut tree will grow in any kind of soil, though it will thrive better and grow faster in a clayish, sandy, deep-bottom soil than in one too rocky. If it can be done, it is better to sow the nuts where the trees have to stay, for the sake of the top root; in that case two nuts have to be planted three inches apart, so as to be sure to have one tree. In the nursery nuts have to be planted exactly like chestnuts, at a same depth and distance. The walnut is generally propagated from the seed, and is grafted only for keeping certain varieties. The general and best way of grafting the walnut is by circular or "whistle budding," as described above. But it has to be done more carefully on the walnut than any other tree, because of its being so pithy and its bark so thick. It might be budded as it is commonly done for other trees, and even cleft grafting resorted to. Some nurserymen, before transplanting a tree, cut off the roots in summer all round with a spade at sixteen to twenty-four inches from the tree, according to its size. By that operation the tree will grow lots of little roots, and its transplanting will succeed better. When cleft grafting is used, it must be done exactly as with the grapevine (see back numbers of RURAL PRESS on grapevine grafting.) The grafting by common budding does not succeed very well on the walnut tree. This tree grows to enormous dimensions, and they must be planted at a great distance from each other, or all by themselves, as the roots run very far into the ground which it exhausts. And it is said that its shade is injurious to other plants and so is the rain that runs down from its leaves. It is better, therefore, not to plant it in a cultivated field. I should think that the foothills of the Sierra Nevada were admirably adapted to that giant of our forests and also to the chestnut tree.

When the green shell that encloses the nut dries up and bursts open, it is time to pick the nuts. This is done with a long and light stick, by striking gently with it the nuts in their shells. They are set just as gathered under a a shed and stirred up every day with a wooden shovel till the green shells all come off. They are then stored in a dry room at a rather low temperature.

The *Juglans præparturiens*, or early walnut, is a great favorite now-a-days; first, because it is the earliest bearer, secondly, it can well be propagated from the seed. This is the variety I imported from France five years ago. A great drawback with walnut planting is that it will commence to bear but very late, about its tenth year; however, it does not yield any very important crop before it is thirty years old.

The Filbert,

Or *Corylus tubulosa*, is a tree of smallsize, and is found in both Europe or America; that is, the common hazel, the filbert being the cultivated branch of the family. The best variety of filbert is certainly the *corylus avellana*, or *red aveline* of the French, and extensively cultivated in Spain for exportation. The inner skin is red, whence it derives its name. It is a large, oblong nut, the almond being very fat and sweet. They are found in the bushes in clusters of two to eight together. The shell is soft enough. The white Aveline is another very nice variety, the nut being very broad and very fat. There is, too, the Grosse, of Piodmont, the one found in fruit stores in this country, and imported from Italy. I believe that the red avoline is a much superior nut. As I have the pleasure of sending you a small lot of red and white avelines, you can for see yourselves. Besides those two varieties I have the Grosse of Piedmont and Du Chilly.

The filbert grows in all kinds of soil, but a northern exposure and a light, moist soil is preferable for the growth of the fruit, which gets larger and acquires a finer flavor. The Filbert needs no care whatever but the taking off of all the dead wood. However, it must be given plenty of fresh air, and never be planted in the shade or by other trees. The filbert propagates well enough from the seed, though to have exactly the same varieties it is preferable to plant suckers, which grow out abundantly from the foot of the tree. It might also be grafted on the common hazel. The filbert needs no pruning whatever, unless it is desired to raise it as a tree instead of a bush. The nuts ripen and falls to the ground about August and September; they are then gathered and kept as described for walnuts. The oil extracted from that nut is very rich and commands a big price.

Advantage of Nut Raising.

The great advantage to cultivate all these kinds of nuts is that when once the trees are set out they require no labor whatever, and though we have to wait years for a crop of any account, still, when the trees commence to bear they keep on increasing every year. and all to be done is to gather the nuts and bring them to market. But their great advantage over all other fruit is that they keep so well, being eaten dried, while with apples, peaches, plums, grapes, etc., they must be sold fresh or else dried up. Even then, if we try to export that dried fruit from the State, we will meet a great competition from Eastern growers. Not so with walnuts, chestnuts, almonds and filberts, for which California has an unlimited market—this whole continent, without speaking of her facilities to export them to other countries. Any of your readers that will give the subject the closest attention must come to a like concluslon, that in nut raising there is not only "money to be made," but a "better and safer investment" in the end than in the raising of any other fruit.

FELIX GILLET.

Nevada City, December 30th, 1875.

HORTICULTURE.

Fruit Growing.

We find in the Sonoma *Democrat* an article on fruit culture, by W. H. Nash, which has the ring of practice and actual observation. We make the following selections from Mr. Nash's writing in order that our readers may have the benefit of his experience and be stimulated to furnish us with the results of their own:

After twenty-five years of experience in fruit growing in California, we think it will be excusable in us if we presume to offer to the farmer a few suggestions relative to the soil and climate best adapted to the growing of fruit, as well as some suggestions as to the proper season and manner of planting the trees:

In our California climate our winters are so mild that it will do to plant at any time from the commencement of the first rains to the 1st of March.

It has now become a well known fact that many varieties of fruit when planted near enough to the coast to be exposed to the winds from the ocean are almost total failures, but when this cause of defect is removed by planting these same varieties in the orchard lands of the interior they become not only thrifty and productive but the fruit is unsurpassed in size and flavor.

All trees should be selected with reference to the climate and soil where they are to be planted.

The pear tree in California is much more hardy than the apple tree, and will grow and produce good fruit in almost any locality, but succeeds best in a deep, rich and moderately dry soil.

The peach tree succeeds best where the climate during the summer months is warm, ranging from fifty to ninety degrees, and the soil rich, moist and loose. In a cool place this fruit is often of an inferior quality, juicy but insipid.

The plum tree should have a rich, moist soil, and when planted in poor land manure should be used unsparingly.

The cherry may be grown to the highest state of perfection when the land is a deep, rich, sandy loam, the water at no time standing nearer than eight feet of the surface of the ground, and where the temperature during the summer months ranges from forty to eighty degrees.

On mahaleb stalks the cherry can be grown quite successfully where the soil is much more wet and heavy.

The quince, valuable for preserves and jellies, can be grown on moderately wet land, and will produce enormous crops.

Almonds, we have experimented with two varieties of trees for a few years, and they have fruited to some extent. Like the apple, it succeeds best when out of the reach of the coast winds, but cannot stand the heat of some of the interior valleys. We know of no better recommendation than to say that as a general rule where table grapes can be grown, the almond will flourish.

The grape may be said to do well in almost any location in California that is out of the damp winds and fogs that prevail along the

(Continued on Page 28.)

Prizes in Industry and Agriculture.

The Societe d'Encouragement of Paris has recently published its list of prizes offered from 1876 to 1881, both inclusive. It may be mentioned that this society bestows annually a gold medal bearing the likeness of some man who has achieved a high reputation in art or science, or is the originator, whether French or foreign, of works which have exercised the greatest influence on French industry during the six preceding years; in 1873 this grand medal was awarded to our own countryman, Sir Charles Wheatstone.

Although all the subjects are open to foreigners as well as natives of France, many would of necessity be confined to the latter. The following items from the long list are likely to have an interest in this country:

A prize of 200 francs is offered in 1880 to the author of the most important improvements in the material and processes employed in civil engineering, architecture and public works.

A prize of 2,000 francs is offered in 1879 to the inventor of a machine for combing short staple cotton which has been brought into practical use.

A prize of the same amount is offered for 1880, for a machine for cutting files of all kinds automatically, and which shall have worked for at least three months.

A prize of the same amount is proposed to be awarded in 1877 for the invention of any efficient means of stopping the vibrations caused by steam hammers, and other tools acting by percussion, from being propagated beyond the works in which they are employed.

Prizes of the same amount are offered in 1878 and 1879 for the industrial application of oxygenated water, and for the economic preparation and application of ozone; and in 1876 for fixing the nitrogen of the atmosphere in the form of nitric acid, ammonia, or cyanogen, the object being to obtain practically some compound of nitrogen cheap enough to use in making manure from the nitrogen of the atmosphere, to the exclusion of animal matter.

A prize of 6,000 francs is proposed for 1878, for a theory respecting steel, founded on actual experiments, and resulting in improved means of directing the manufacture of steel.

A prize of 3,000 francs, set down for 1880, for the disinfection of the residue from gas works.

One thousand francs are offered in 1880, for an apparatus capable of producing high temperature in home workshops rapidly and economically.

A prize of 2,000 francs is announced for a method of preventing soot adhering to chimneys so that they may be completely and easily cleaned.

All memoirs, models, etc., must be lodged with the secretary of the society before the 1st of January of the year in which the prize is to be awarded. Full particulars will be found in the August number of the *Bulletin* of the society, which is in the reading room of the society of arts.—*Journal Society of Arts.*

An Improved Barrel.—Mr. L. E. Sunderland, of Williamsburg, Va., has devised a new style of barrel, the object of which is to provide a barrel for the shipment of produce, which shall be capable of transformation after the said produce is delivered, so as to occupy a comparatively small space, and be returned to the seuder at the rates of solid freight and at a comparatively trifling cost. It consists in a series of staves, connected by hoops which have peculiar fastenings, which adapt the staves to be disposed flat for return transportatiou, or rolled up and fastened to form a barrel. The sides of the barrel are straight, and the heads are held in place hy lugs alteruating, when the barrel is set up upon opposite sides of the head. The heads are thus of less diameter than the inside of the barrel, so that the barrel, when returned, may be packed full of heads, and the rest of the barrel sides packed flatly together.

Sharpening Edge Tools.—Very few general amateurs have sufficient practice to acquire, or to retain when acquired, the kuack of producing perfectly flat facets on their plane-irons, chisels, etc. By the aid of the following simple contrivance, put together very easily, the end may be attained with dispatch and certainty, the shavings leaving the plane with the real professional "whistle." A simple saddle of wood, with a thumb screw and clamp, or dog, for fixing the tool firmly to the cross bar. The oil-stone is placed between the cheeks and the tool, so adjusted that the saddle bears with its heels or hinder angles on the beneh, the tool, of course, bearing on the oil-stone. The saddle, and with it of course the tool, is then worked backwards over the stone.—*Ex.*

Breaking Weights.—A correspondent of the *Scientific American* writes as follows: Some time since I ordered some short timber to be placed on some joists in my shop, and left. When I returned I found it all placed on two joists, and I took one-third off. Twenty-four hours afterward the joist broke. Why did it not break when all the timber was on? To this query that journal responds: Time is an element to be taken into consideration in overcoming the strength of the fibers of timber. Two-thirds of the load in this case was sufficient to break the joist in twenty-four hours after one-third had been removed; but a much shorter time would have sufficed to break it with the whole load upon it.

THE PACIFIC RURAL PRESS

For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the Press MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the Rural and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the Rural Press may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the Rural Press for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our Home Circle department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the Rural will be cared for in our Good Health, Useful Information and Domestic Economy columns. Our General News Items, New Inventions, Scientific and Mechanical Miscellany articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the Rural Press will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the Rural Press of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the Pacific Rural Press will continue to be a faithful advocate of the best and bigbest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

We Prepay the Postage

On all papers sent to subscribers in the United States.

Subscription Rates, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers,

No. 224 Sansome street, S. F.

DEWEY & CO.,

American & Foreign Patent Agents,

The best, speediest, and surest method for you to obtain patents, file caveats, or transact any other important business with the Patent Office at Washington, or with foreign countries, is through the agency of DEWEY & CO., PUBLISHERS OF THE MINING AND SCIENTIFIC PRESS, SAN FRANCISCO, an able, responsible, and long-established firm, and the principal agents on this side of the continent. They refer to the thousands of inventors who have patronized them, and to all prominent business men of the Pacific Coast, who are more or less familiar with their reputation as straightforward journalists and patent solicitors and counsellors.

We not only more readily apprehend the points and secure much more fully and quickly the patents for our home inventors, but with the influence of our carefully read and extensively circulated journals, we are enabled to illustrate the intrinsic merits of good patents, and secure a due reward to the inventor, besides serving the public who are more ready to give a fair trial, and adopt a good thing, upon the recommendation of honest and intelligent publishers.

To Obtain a Patent.

A well-constructed model is generally first needed, if the invention can well be thus illustrated. It must not exceed 12 inches in length or hight. When practicable, a smaller model is even more desirable. Paint or engrave the name of the article, and the name of the inventor, and his address upon it.

Send the model (by express or other reliable conveyance), plainly addressed, to "Dewey & Co., Mining and Scientific Press Office, San Francisco." At the same time, send a full description, embodying all the ideas and claims of the inventor respecting the improvement describing the various parts and their operations.

Also send $15 currency, amount of first fee of the Government. The case will be placed on our regular file, the drawings executed, and the documents made up, and soon sent to the inventor for signing.

As soon as signed and returned to us with the fees then due us, it will be sent straightway to the Patent Office at Washington

For designs no models are necessary. Duplicate drawings are required, and the specifications and other papers should be made up with care and accuracy. In some instances for design patents two photographs, with the negative, answer well instead of drawings.

For further information, send a stamp for our illustrated circular, containing a digest of Patent Laws, 112 illustrated mechanical movements, and Hints and Instructions regarding the rights and privileges of inventors and patentees, which will be furnished post paid. Also a copy of NEW PATENT LAW of 1870.

When the invention consists of a new article of manufacture, a medicine, or a new composition, samples of the separated ingredients, sufficient to make the experiment (unless they are of a common and well-known character), and also of the manufactured article itself, must be furnished, with full description of the entire preparation.

For Processes, frequently no model or drawings are necessary. In such case, the applican has only to send us an exact description, an what is desirable to claim.

Address DEWEY & CO.,

Publishers, Patent Agents and Engravers,

No. 224 Sansome street, S. F

Thanks for Prompt Attention.

Stockton, June 26, 1875.

Messrs. Dewey & Co., S. F.:—

I have received the patent for my invention in wagon brakes, which you prosecuted for me; patented May 11, 1875—No. 163,046. Thanks to you for your prompt attention to the case; you will hereafter be my attorneys in such cases. I recommend all inventors on the Pacific coast to give you a call, which I think they will never have any cause to regret. Very truly yours,

GEO. G. BUCKLAND,
Stockton, Cal.

The Rural Press.—This excellent agricultural journal has entered upon its tenth volume, with every mark of increasing prosperity, and with it, increasing usefulness. We are glad to note this, and although the Press and *Agriculturist* are rivals in a certain sense, we have no desire to succeed at the expense of our generous rival. We are both working for the advancement of the same interests, and we have both achieved great success in the direction. We wish the Press renewed success.—[Sac. Valley Agriculturist, July 4th.

Address Wanted.—If those subscribers to the Rural Press who answer to the following names, will send their P. O. address to this office, they will greatly oblige the publishers: H. Overaker, Antonio Byros, L. Boyer, F. Anson and M. Levis.

The Pacific Rural Press,

AN ILLUSTRATED

AGRICULTURAL HOME JOURNAL.

Among other Reasons for Subscribing are the Following:

Because it is a permanent, first-class, conscientious, able, and well conducted journal.

Because it is the largest and best agricultural weekly west of the Rocky Mountains.

That Patrons may be fully posted on the progress of the Order in this and other fields.

That more farmers' wives and children in their isolated homes may be cheered by its weekly visits, laden with its pleasing, yet moral reading, and sound instruction.

That a more extended interchange of views and opinions may be had among farmers, upon all the great questions touching their mutual interests and progress.

That the agricultural resources of the Pacific States may be more wisely, speedily and thoroughly developed by an open and free discussion in our columns.

That all the honest industries of our State may be advanced in connection with that of agriculture, our columns being ever open to the discussion of the merits of all progressive improvements.

That the Rural, after having been read and pondered over by the home circle, can be filed away for future useful reference, or forwarded to the old Eastern fireside of the Atlantic border, in aid of an increasing immigration to our sunny clime.

DEWEY & CO., Publishers,

No. 224 Sansome street, SAN FRANCISCO.

California Farmers' Mutual Fire Insurance Association.

No. 6 Leidesdorff St., Rear of Grangers' Bank.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't	I. G. GARDNER, V. Pres't
G. P. KELLOGG, Treasurer	A. W. THOMPSON, Att'y
I. C. STEELE, San Mateo	CHAS. LAIRD, Salinas
A. WOLF, Stockton	A. D. LOGAN, Colusa
W. H. BAXTER, S. F	G. W. COLBY, Butte Co
J. C. MERRYFIELD, Dixon	C. J. CRESSEY, Oakland
A. B. NALLY, Santa Rosa	E. W. STEELE, S. L. Obispo

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$3,020,378.00
TOTAL PREMIUMS	63,306.45
LOSSES PAID	641.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

Successor to A. Pfister & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

NEW FRUIT DRIER

FOR THE CENTENNIAL.

A man of limited means has recently invented a New Fruit Drier, which he wishes to exhibit at the Centennial. It is adapted to either farm or factory purposes,

Dries all kinds of Fruit and Vegetables,

And makes the finest kind of Raisins, with less labor and less fuel than any other Drier ever invented. He wishes to dispose of an interest in it or take a partner who will furnish means to carry out his plan. This will afford some enterprising man a good opportunity to visit the Centennial, and make money at the same time by selling the Patent. For particulars call on or address

TIFFANY & ROBERTS,
207 Kearny Street, S. F.

P. S.—We refer to Dewey & Co., Patent Solicitors, through whose Agency the patent was obtained.

SANBORN & BYRNES,

STAIR BUILDERS.

Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-bp

---

CHAS. H. PHELPS,

ATTORNEY AT LAW,

306 PINE ST., N. W. Cor. Sansome, SAN FRANCISCO

☞ Especial attention given to cases involving Mining, Patent or Commercial Law.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughhrod Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughhred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabhits, Ferrets.

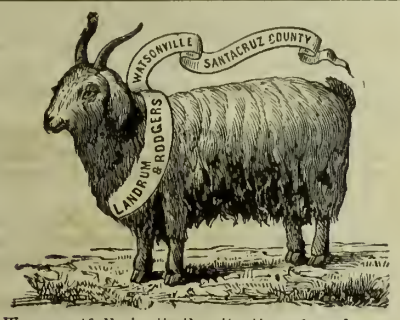
GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabhits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

WILLIAM KNOWLES, P. O. Box 337, Oakland, Cal., has for sale Eggs for Hatching, carefully packed, from Brown Leghorns at $4 per doz. Houdans, White Leghorns and Buff Cochins at $3 per doz; two doz. for $5. Sent C. O. D. to any address.

Live Stock Notices.



We respectfully invite the attention of wool growers to our fine stock of Cotswool Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-eow-tf Watsonville, Cal.

THOROUGHBRED JERSEY CATTLE.

FOR SALE, twelve bull calves of 1875—three yearling bulls—Also cows and heifers brod from the best imported stock. Address,

A. MAILLIARD,

San Rafael, Marin County, Cal.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,

San Francisco.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

El Dorado, El Dorado Co., Ca

The attention of Wool Growers is cordially invited to the

Thoroughbred Stock Bred and Kept on the MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 P. M. and have an hour at the ranch, returning on Overland train at 6 P. M. Or, coming out in morning, can return to city at 11 A. M. The proprietors make the

THOROUGHBRED SPANISH MERINO SHEEP A SPECIALTY,

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

10v7-eow Importers and Breeders of Spanish Merino Sheep.

Miscellaneous Notices.

THE ALDEN FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

THE BEE-KEEPERS' MAGAZINE,

An *illustrated* monthly Journal of 32 octavo pages devoted exclusively to BEE-CULTURE. Edited by ALBERT J. KING, containing monthly contributions from Mrs. E. S. TUPPER, and other eminent Bee-Keepers in both EUROPE and AMERICA. A large space is devoted to BEGINNERS giving useful information *just when it is needed* throughout the year. TERMS $1.50 per year. We will send the MAGAZINE 4 MONTHS ON TRIAL and *include* a 64-page pamphlet, (price 50 cts.) containg a beautiful life-like Chromo of HONEY-PLANTS and ITALIAN BEES in their natural colors, Prize Essay by Mrs. TUPPER, Queen Rearing by M. QUINBY, Instructions for Beginners, etc. all for 50 cts. Address

KING & SLOCUM,

61 Hudson Street, New York.

Holloway's Sure Death

—TO—

GOPHERS, SQUIRRELS AND RATS.

This preparation, compounded by a most skillful chemist, is the most efficient poison for the extermination of Gophers and Squirrels. It is cheaper than strychnine, and in using it, saves a great deal of time and unpleasant work. Price, 75 cents per pound. For sale everywhere.

ABRAMS & CARROLL,

WHOLESALE DRUGGISTS,

SOLE AGENTS.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Gooods, Cigars, Candies, Candied Fruits, Honey, Maccaroni, Crackers, Sugar, Soap, Boots, Etc,

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine imported Australian, French and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,

433 California Street, S. F.

(Merchants' Exchange.)

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* FOUR sizes. They "sow *like a charm:*" *no packing* of seed in the hopper, *no crushing* it, *no pausing* or *waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, no "*skips*," *no noise, no equal!* THE DOUBLE WHEEL HOE works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable COMBINED MACHINE possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our NEW HORSE HOE, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. We must have a Live Agent in Every Town.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabhits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls reduced prices. Send for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 44 Cal. Market S.F

Commission Merchants.

T. O'CONNOR & CO., SEED AND PRODUCE Commission House,

IMPORTERS OF

Seeds and Semi-Tropical Trees Plants and Fruits, Etc.

500,000 Australian Blue Gum at $25 to $40 per M, in boxes; 250,000 Monterey Cypress at $25 to $40 per M, in boxes; also a consignment of Australian Blue Gum Seed, warranted 1874, per steamship *City of Melbourne,* at 75 cents per oz., or $10 per lb.

Navil (or Seedless) Orange Trees,
Lisbon Lemon Trees,
Passion Fruit-Besring Vine and Seed,
Norfolk Island Piue (Elcuria) Seed or Plants.
} Australian.

Orange Trees.—Wilson's Seedlings, Koua, Malta Blood and St. Mikel's.

Chnchapela, Pernambuco and Sweet Acapulco; also Vegetable, Grass, Field and Flower Seeds. Australian and Sicily Lemon Seed in barrels. Orange and Mexican Lime Seed in barrels. For sale by

T. O'CONNOR & CO.,

426 Sansome street, near Clay, S. F.

H. K. CUMMINGS. 1858. H. H. BALSTON. 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer. 4v23-1y

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

RUPTURE.

Use no More Metallic Trusses. No more suffering from iron hoops or steel springs. DR. ROWE'S PATENT ELASTIC TRUSS is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of DR. ROWE'S comfortable elastic appliances; you will never regret it.

ROWE ELASTIC TRUSS CO.,

tf 609 Sacramento Street, S. F.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

(Continued from Page 25.)

coast, even in some sheltered locations very near the coast they may be grown quite successfully, but not of the best quality for wine.

The currant is one of the most valuable of all the small fruits, and is being used extensively for jelly as well as for table fruit and pies. Like the cherry it should have a cool summer climate, and a loose rich soil.

The gooseberry should have a moderately dry soil, with plenty of manure and good cultivation. If grown in cold, damp places the fruit will be subject to blight and mildew. The Hawton's seedling, however, may be grown in almost any location.

The blackberry should have a warm, moist soil to sncceed well.

Preparation of the Soil.

Plow the ground at least twice and as deep as possible; the subsoil plow may be used to great advantage and when the gronnd is hard it ahould not be omitted.

Pruning the trees at the time of transplanting should be carefully attended to. The ends of the roots that always are more or less bruised in digging shonld be cut off with a sharp knife and the branches should all be cnt back to a bud within four or six inches of the main stem, leaving them in a proper shape for the formation of the tap.

Planting.

I will give our method of plantiug, and think it will do to work hy as a general rule:

Dig the holes circling three feet in diameter and two feet in depth; the rich soil of the surface should be thrown out on one side, the balance on the other side of the hole. In refilling the hole, throw in the surface dirt first, which will leave the richest part of the soil where the tree will receive the most benefit from it. Fill up the hole to a proper depth to receive the tree without bending the roots, keeping it abont the same depth that it stood in the nursery. Fill in about with loose dirt until the ground about the tree is level, then the planting is done.

From the time of plowing the ground should be kept well tilled and free from grass and weeds. A crop of carrots, beets or beans may be grown betweeu the trees, but should not he planted nearer than four feet to the trecs until after they have growu at least one year. Currants or gooseberries may be planted in the same manner, and may be allowed to grow until the trees are ten or twelve years old.

The distance that the trees should be planted apart are:

Standard apples	24	feet	each way.
Pears	18	"	"
Standard Heart cherries	24	"	"
Duke C	16	"	"
Almonds, peaches, plums and nectarines	20	"	"
Apricots	24	"	"
Gooseberries, English	3x5	"	"
Hawton's Seedlings	6x8	"	"
Currents	2x5	"	"
Blackberries	8x8	"	"
English walnuts	40x40	"	"
Grapevines (in vineyard)	7x7	"	"

Manuring.

The very common practice in regard to manure is to apply a very large quantity immediately aronnd the trnnk of the tree, which is decidedly wrong, as it creates an excess of heat and enfeebles the growth of the tree. The proper way is to apply a sufficient top dressiug broadcast between the rows, and should be well plowed in where it can reach the extremity of the roots. There are many rich soils where manuring is unnecessary.

Mulching.

This should he practiced in very dry soils, and only with newly planted trees. Would recommend sand to be thrown around the tree to the depth of three or four inches, and about six feet in diameter. It should be applied early in May. In protecting trees from the heat of the sun in summer, it is ouly necessary to protect the trunk. This may be done by means of two boards set together forming an angle; this is placed on the southwest side of the tree.

Bananas.

Messrs. Editors:—The Rural Press of 25th inst. is at hand, and I have read in it my communication respecting bananas, and the success of Messrs. Huntingdon and Messenger in growing them; but, unfortunately, the place where these bananas were grown is omitted, either by mistake of mine or of the printer.

Now, I never intended to convey the idea that bananas would grow in *any* part of Los Angeles county. I know the attempt to raise them in other places has proved a decided failure, while the growing of them *here* has proved as decided a success.

For the raising of beets, corn, alfalfa and pumpkins, I think Compton, Los Nietos, Westminster and Gospel Swamp cannot be excelled anywhere in this county or in any county in this State; but for the cultivation of oranges, lemons, limes, bananas and other semi-tropical fruits I believe Orange cannot be equaled anywhere in this or in any other county in the State.

We have a most fertile soil, abundance of water for irrigating, a most healthful climate and an almost entire immunity from frost. We have had no frost this season, and it is to-day the 28th of December; tomato vines in blossom and sweet potatoes and Irish potatoes growing luxuriantly, the latter in all stages of growth, from the recently planted just appearing ont of the ground, to those now being dug and prepared for market. One word more, about pine-apples. Mr. D. W. C. Howard, our nurseryman, has several growing in the open air in his nursery, and they appear to be in a most flourishing condition. If the experiment of growing them proves successful, I will report. R. B. W.

Orange, Los Angeles Co., Cal.

Mass Meeting in Relation to Mining Debris.

An adjourned meeting of the citizens of Sutter and Ynba counties was held on Friday afternoon, December 24th, at the City Hall in Marysville.

The meeting was called to order by Judge Craddock.

Dr. S. R. Chandler, of Yuba City, chairman of the committee to draft a bill to he submitted to the Legislature, to prevent the further destruction of the valley farming lands and the navigation of the Sacramento and Feather rivers, presented for the consideration of the meeting a bill, the main features of which were: That it should be a misdemeanor for hydraulic miners to befoul and fill with sediment from their mines the waters of the rivers. That employer and employee should be held equally guilty and responsible in a civil action for damages, and a judgment for damages when rendered shonld be a lien upon all the mine and the machinery and appurtenances, and should take precedence of all other liens. That the second offense should be punishable by fine or imprisonment, or both, in the discretion of the court. The doctor stated that he had submitted his draft of a hill to several legal gentlemen, who thought it sufficiently comprehensive, but that in its present form would he difficult to enforce. He maintained his positiou with ability, and argued that self-protection was the first law of nature. That the farmers had bought their lands of the government, settled and improved them in good faith, and were entitled to protection. That we might bankrupt ourselves building levees which were at the best but temporary protection against encroachments of the sediment. That unless somethiug was done immediately we should see a large portiou of the finest lands in the State turned into a desert, and the inhabitants, with blasted hopes and shattered fortunes, fleeing from their once happy homes.

Judge I. S. Belcher, one of the legal gentlemen of the committee, being called upon, said that since his appointment upon the committee he had not had time to fully consider the question so as to be fully satisfied in his own miud; that the matter was beset by many difficulties, both from a legal and financial standpoint; that hydraulic mining had now such approved appliances for moving earth that it was comparatively easy to send a large quantity down upon the cultivated lands, carrying destructiou and desolation; that in law there was no principle better settled than that every man should so use his property as to not interfere with and injure his neighbor; that the hydraulic miner was injuring his neighbor was clear, but that the best remedy was not so clear; that he was willing to co-operate with the committee and give them all the assistance in his power.

W. H. Parks said it was high time that something was done. That the State could not afford to see so much of her best territory destroyed. That many well-to-do farmers had already been broken up by the sediment from the mines upon their farms. That the navigation of the Sacramento and Feather rivers was being ruined. That he with others well remembered when to be "a good miner was much greater than to be a good, honest farmer." But the thing was reversed now. That the State now must look to agriculture as one of her greatest and most permanent sources of prosperity and wealth. That he was not in favor of one industry being built np at the expense of the other; and that it was not just to use the farmers' fields as a dumping place for the mining sediment. That as a business proposition it would be better for the State to buy every hydraulic miue and pay every dollar it was worth than to permit the valley lands to be ruined as they soon would be; but he doubted whether that would be practicable, as there would be countless worthless claims for worthless mines. That the hydraulic miner was in a condition that we should carefully consider. He has his money and business in his mine. He is sending his sediment on our lands, but are we ready to say he shall stop immediately? Are we ready for so radical a measure at once? For one, I dare not say it. I doubt whether any man here will say it, while we all feel that we are suffering a great hardship. The question is beset with many difficulties; hut I believe there is a remedy, and I will cheerfully support any measure that offers the needed relief.

J. H. Keyes said: "I have no objections to the miners digging out all the gold they can find, but I don't want them to send the whole side of a hill down upon my ranch and bury me and all I have. And that is just what they have done and are doing. I want to be let aloue. I don't know much about law nor don't want to. If it is the law that one man shall use his property so as uot to injure his neighbor, I should like to see that law put in force. As far as I can learn, when you go after a miner for damages the miner says, 'I have not damaged you; how do you know that my sediment is on your land? There are others mining.'" Mr. K. thought a law should be passed making any miner that threw sediment into the river where it would come upon a farmer's land, responsible for all the damage, and the putting of sedimeut into the river evidence of such damage.

Dr. Wilkins agreed with the other speakers in that it was a very great evil, and should engage the serious consideration of all the people, and hoped that some relief may be fonnd.

J. L. Wilbur, in suggesting a remedy, said the Legislature might find it expedient to appoint a commission to visit the localities of the mines and see if possible whether cheap and worthless lands might not be found where their washings could be conveyed to where they would at least be no injury if they did no good.

George Ohleyer was in favor of any move or compromise that wonld save the agricultnre of the State. This being now by far the greatest interest in the State, it should receive the fostering care of all those who look upon California as the permanent home of themselves and posterity. To show what had already been destroyed, he submitted the following figures:

Twenty-four sections of land destroyed on the Yuba river—15,360 acres—valued at $200 per acre	$3,072,000
Personal property and improvements	3,000,000
Loss and depreciation of property in Marysville	2,000,000
Destruction on Feather river	500,000
Eighteen sections on Bear river — 11,520 acres—valued at $100 per acre	1,152,000
Destruction in Yuba county	9,724,000
Assessed value of all property in Yuba county for 1875	5,025,720
Assessed value of all mining property in Yuba county in 1875	208,600
Destruction of property in Sutter county—eighteen sections of land on Bear river—11,520 acres, valued at $100 per acre	1,152,000
Personal property and improvements	1,000,000
Destruction in southern portions of the county, Coon creek and Auburn ravine	500,000
On Feather river on both sides	500,000
Total in Sutter county	$3,152,000

The speaker estimated the total amount already spent by the building of levees to protect what is not yet wholly destroyed, at $1,000,000. And these works, he claimed, were as yet protecting $20,000,000 worth of property. But the filling up of rivers is gaining on our ability to levee it out, making it perfectly plain that all must soon go together. For these reasons he held that should no remedy occur short of stopping the mines, that mining should stop. Three hundred thonsand dollars of mining property should not be allowed to menace and destroy property assessed at $10,000,000, besides destroying our rivers and harbors.

On motion it was ordered that W. H. Parks, Judge Crane and Judge Filkin be added to the committee heretofore appointed to draft a hill to be presented to the Legislature, making it unlawful to flow mining debris into Bear river, Yuba river or Feather river, or their tributaries, and making any and all hydraulic miuing companies so flowing debris in said streams answerable in proportion to the amount so thrown into said streams for the damage caused thereby. Also, to ask the Legislature to investigate by appropriate means this subject in order that some plan may be adopted by which the destruction occasioned by hydraulic mining on said streams may cease. And to ask the Federal Government for appropriations to keep open for commerce the navigable streams of the State rendered unnavigable by hydraulic mining.

On motion, the meeting adjourned till Saturday, Jannary 8th, at twelve o'clock, to hear the report of the committee and take action thereon. J. H. Craddock, Chairman.

George Ohleyer, Secretary.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, Dewey & Co., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., Jan 4th, 1876.

For Week Ending December 21st, 1875."

Spittoon Mat.—John Lee, S. F., Cal.

Mash Attemperator.—William Paddon, S. F., Cal.

Apparatus for Aging Liquors.—Jean B. Baux, Oakland, Cal.

Hanging or Portable Fountains.—Frank C. Shafer, S. F., Cal.

Trademarks.

Hair Producer.—H. A. Moore, S. F. Cal.

Poison and Poisonous Compositions for the Destruction of Squirrels.—

——"The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Dewey & Co. {224 Sansome St} Patent Agt's.

Commercial Hotel.

We call attention to the following circular issued by the proprietors of the new Commercial Hotel, on Montgomery avenne, in this city. The senior partner of the firm is F. A. Hornblower, formerly of the Orleans hotel, in Sacramento, well known as ablo to keep a hotel. Mr. H. P. Saxe is one of the "thoroughbred boys" whom the stock meu of the coast know so well. The firm is strong and their manifesto which we print below is inviting:

The Commercial Hotel was opened to the public on the 20th of December, 1875. It was erected by Wm. Hood, Esq., of Sonoma county, at an expense of some $200,000, and has been nearly two years in construction, and the entire new furnishing of the hotel amounts to near $40,000. The structure is of brick, four stories high; has a street frontage of 321 feet, and has 175 large rooms, all of which are lighted from outside, and are perfectly ventilated. In its architecture it is solid, unique and elegant—"founded upon a rock" on one of the high levels of Kearny street—and its sewerage is well above high tide. It is triangular in shape, and so located as to afford over sixty suits of sunny rooms; for light, ventilation and sewerage is unrivaled by any hotel on this continent. The main entrance to the hotel is on Montgomery avenue, where one of Stebbin's improved patent hydraulic elevators and two grand stairways receive the guests and convey them to each story of the hotel. It is supplied with all the modern improvements; hot and cold water, bathing rooms and closets on every floor.

The bar, billiard room, barber shop and laundry of the Commercial will be under the supervision of its proprietors, and will be properly conducted. The location of the hotel is four blocks west of the Sacramento, Donahue and Petaluma steamer docks, and two blocks west of the postoffice and custom house, and is quite as near the business centers of the city, as the Palace hotel. The Kearny street cars, from the Southern Pacific railroad depot, pass in front of the hotel. The cars from the Oakland ferries will also pass the hotel on Montgomery avenue. The hotel coach will convey patrons to the hotel free of charge. It will be kept strictly a first-class house, and at the reasonable rate of two dollars per day, and at a less price by the week, or month. The senior partner of this firm embraces this opportunity to tender his thanks to his former patrons at the Orleans hotel, (Sacramento) and bespeaks a continuance of their favors at his new, and more elegant establishment, in the city of San Francisco.

To the Readers of the Pacific Rural Press!

We wish you to speak to all who you think would be pleased with our paper, and tell them of its merits, and of the advantage it has been to you and your acquaintances.

We need a larger subscription list, which will enable us to keep up a good paper and to improve it, and become still more useful to you and to our whole coast.

Hand your paper to others when read—if you do not file it. Send it to your friends by mail. Send to our office for back numbers, which will be sent free as samples for you to distribute.

The attention of meetings of Granges and Clubs called to articles of local or special interest, would prove of mutual benefit.

Write for the columns of the Rural Press. Send us friendly counsel, business hints, and all information of interest to us and our readers.

Subscription, $4 per annum. Old subscribers sending us a new subscription with a renewal of their own, may remit $7 for the two.

Remit by P. O. Order or registered letter to

DEWEY & CO.,

Office, No. 224 Sansome St., S. F.

Subscribers are requested to examine the printed address on their papers. If mistakes occur *at any time* please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4j176.

Sutter Creek, February 26th, 1875.

Messrs. Dewey & Co.—I have received my Letters Patent through your Aagency. nd, for your promptness, accept my thanks. Yours, S. N. Knight.

The Scandinavian and German Immigration and Employment Office,

610 Merchant Street, near City Hall, S. F.

Since July, 1875, consolidated with the old California Labor Exchange, established in 1868. Located in the business center of San Francisco, with agents in the East and the mother countries of Europe, and mastering all the principal European languages, we have unsurpassed facilities for complying with any demand on us for male and female help in any capacity and of any nationality, at reasonable terms. A lady attends to the female department. Scandinavian, German, French and American help our specialty. We can furnish farmers with any number of Scandinavian and German help, if timely notice is given. Hotels and private families supplied with French and German waiters. When female help is wanted in the country, the remittance of the passage money in advance is indispensable. Your orders will be filled promptly and conscientiously if addressed to

V. de BRETTEVILLE & CO.,

[P. O. Box 1436.] San Francisco, Cal.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

Office and Address,

No. 166 TEHAMA STREET,

Cor. Third, bet. Howard and Folsom, San Francisco.

eowbp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, January 5, 1876.

The trade of the week has been quiet and without notable features. The general observance of the New Year holiday and the usual inventory taking and changes both in firms and locations engrossed the attention of many of our merchants. In addition to this the opening days of this week were attended by storms of unusual severity and people were disposed to enjoy their homes.

During the year now closed the trade of this city has handled large amounts of produce, and the summary for the year shows a healthy commercial life and growth. Following is a statement of the

Receipts

Of California produce at this port for the twelve months ending December 31st, 1875.

Flour, bbls	491,408	Potatoes, sks	657,542
Wheat, ctls	7,676,000	Beans, sks	111,452
Barley, ctls	988,280	Hides, No	145,288
Rye, sks	14,572	Corn, sks	148,905
Oats, ctls	248,207	Quicksilver, flasks	49,921
Hay, bls	473,400	Buckwheat, ske	1.392
Wool, bls	368,352	Hops, bls	4,357

Exports.

The quantity and value of domestic produce, other than treasure, exported by sea during the twelve months ending December 31st, 1875, were as follows:

	Quantity.	Value.
Abalones, sks	1,078	$11,738
Barley, ctls	125,158	215,623
Beans, sks	10,493	20,351
Bran, Meal, etc, pkgs	7,140	13,225
Brandy, galls	42,158	87,671
Bread, pkgs	16,621	45,594
Brooms, dozen	11,180	30,457
Building Materials—		
Lumber, feet	10,653,471	200,891
Shinglee, No	4,845,750	12,871
Flour, bbls	467,719	2,452,967
Hay, tons	502	10,605
Hides, No	130,121	568,049
Leather, pkge	4,550	217,698
Maccaroni and Vcr. bxs	3,016	5,457
Mustard seed, sks	1,013	2,901
Malt, sks	2,553	6,521
Oats, ctls	5,373	10,248
Ores—		
Copper, tons	2,877	128,680
Silver, tons	504	120,349
Various, tons	2,043	118,915
Quicksilver, flasks	27,501	1,622,196
Salmon, pkgs	252,839	1,389,678
Vegetables, pkgs	32,274	64,805
Wheat, ctls	7,546,207	14,104 328
Wine, galls	516,942	343,211
Wool, lbs	7,508,245	915,163
Export value		$22,782.192
1874		21,984,549
Increase		$797,643

During the week the local Grain market has been quiet, with a slight downward tendency in quotations.

The course of the Liverpool quotation to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices.

	Average.	Club.
Thursday	10s 5d@10s 10d	10s 10d@11s 6d
Friday	10e 5d@10s 10d	10s 10d@11s 6d
Saturday	Holiday	No quotations.
Monday	10s 5d@10s 10d	10s 10d@11s 6d
Tuesday	10s 4d@10s 8d	10s 10d@11s 4d
Wednesday	10s 4d@10s 9d	10e 10d@11s 2d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	13s 7d@13s 11d	14s@14s 3d
1875	9s 10d@10s 4d	10s 4d@10s 9d
1876	10s 4d@10s 9d	10s 10d@11s 2d

The cable reports for January 3d of the comments of the English Grain authorities have been received as follows:

The *Mark Lane Express*, in its weekly review of the grain trade, says: 1875 has unfortunately proved a year of general deficiency and inferiority. Barley has shown the best yield of the season, being only slightly below the average; but its color has been so generally affected that its value for malting purposes is greatly reduced, perhaps eight to ten shillings per quarter. Sales have been unusually dull. Oats and Beans are below the average, but the better prices paid for the latter compensate for the defect. The Wheat crop has suffered most, only one-eighth reaching the average, while five-sixths sink below it. Whatever dulness now prevails and may for a period continue, our large deficiency will become more evident as the season advances. Should we have a bad spring, an important advance must ensue."

The London Corn Trade Association of Liverpool publish a statement of their estimated stock of breadstuffs there on the 31st of December, 1875, as compared with the same last year. The tables show the following: December 31st, 1875, wheat, qrs, 793,613; corn, qre, 32,684; flour, sks, 192,652; flour, bbls, 52,068. December 31st, 1874, wheat, qrs, 144,311; corn, qrs, 50,-901; flour, sks, 158,670; flour, bbls, 59,140.

The *Mark Lane Express*, as noted in our quotation, anticipates a possible advance in the value of Wheat. On this point we would refer also to a showing of English opinion which will be found in our editorial columns this week.

In General Produce there has been a quiet tone throughout the week.

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the week before:

Receipts of Domestic Produce.

Articles.	Week Ending January 5.	Week Ending December 29.
Flour, quartor sacks.	41,210	22,537
Wheat, centals	83,635	201.128
Barley, centals	5,478	15,472
Beans, sacks	349	523
Potatoes, sacks	2,456	6,172
Onions, sacks	791	1,476
Wool, balee	152	251
Hops, bales	——	39
Hay, bales	5,920	566

Bags—There is little doing in Bags, and quotations are unchanged.

Barley—Barley is quiet at former prices. Among other sales were 100 tons at $1.27½, and 150 tons ordinary Chevalier at $1.35 per ctl.

Beans—Beans are arriving in good amount with slight changes in values, which are noted in our tables.

Corn—Corn is a little in buyers' favor. We note a sale of 366 sks new Yellow at $1.05 per ctl. Our extreme quotation for choice Yellow is $1.15.

Dairy Produce—Dairy Produce is unchanged at last week's quotations. The supply of fresh Butter is abundant, and very little else is being sold. Eggs are again scarce and quotable at 62½c per dozen. The supply has doubtless been restricted by the condition of the roads by reason of the heavy storms, and a full supply is expected as soon as this difficulty is overcome.

Feed—Feed prices are unchanged. The supply is ample for all demands.

Flour—During the week there has been a large shipment to China and Japan per steamer *City of Peking*, amounting over 10,000 bbls. Quotations are stationary.

Fresh Meats—Beef is firm. Good Mutton is scarce. Hogs are firm and in light supply.

Fruits—The Fruit market is quiet. There are several slight changes in particular Fruits, which are noted in our quotations.

Hops—Hops are a little off from last week. There is little sale at anything above 15c. Concerning the New York market for the week ending December 24th, Emmett Wells says:

"The market has held its own very well this week, considering the largely increased receipts, and the comparatively small shipments abroad. There is a growing scarcity of fine Hops, and no large orders could be executed on the market for London account at this time without calling into requisition a goodly proportion of stocks known as 'seconds' in quality; in other words, we think a shipper would find it difficult to execute an order for 500 bales just suited to his wants. The fact is, the Hops are not here, and it would probably require a good deal of riding around to find them in the country, as we know that most of the important districts have already been well scoured and nearly all the best growths taken for export and already shipped. With this view of the situation, what few choice Hops there are remaining in the country unsold, should command more money; but whether they will or not we are not elected to say. Californians are quoted at 17@20c."

Onions—Onions are unchanged.

Poultry and Game—The trade is without notable features. Chickens are in rather better request, and Mallard Ducks are slow in sale. Turkeys maintain values.

Potatoes — Potatoes are steady at last week's prices.

Seeds—The trade is ruling at former prices.

Smoked Meats—Smoked Meats are unchanged. Supplies of Eastern Hams are expected next week. The Provision market generally is quiet with unchanged prices and moderate demand.

Tallow—Tallow is in moderate demand.

Vegetables—The market is nearly bare of small Vegetables. Cabbages are received in good amount and excellent quality.

Wheat—Wheat is freely offered, but buyers are few. We note a sale of 100 tone good Shipping Wheat at $1.90 per ctl. The Produce Exchange is now engaged in making up an estimate of supplies on hand in this State, which we will publish as soon as received.

Wool—Wool is quiet. The trade is very small at quotations. Concerning the general course of prices the *United States Economist* has compiled the following table:

Year.	Fine. Fleece.	Medium Fleece.	Coarse Fleece.
1826	56c	43c	34c
1856	55	45	39
1861	44	40	38
1866	47	40	37
1874	50	46	44
1875	47	46	45

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., Jauuary 5, 1876.

FRUIT MARKET.			
Oranges Mex. ₰ M	15 00@35 00		
Tahiti, do	— —@— —		
Cal. do	15 00@40 00		
Limes, Mexican, ₰ M	10 00@— —		
Malaga Lemons, ₰ bx	12 00@14 00		
Cal. ₰ 100	2 00@ 3 00		
do Sicily ₰ b'x	12 00@14 00		
Bananas, ₰ bnch	2 50@ 4 00		
Cocoanuts, ₰100	7 00 @ 9 00		
Pineapples, ₰ doz	7 00 @8 00		
Apples, ₰ box	1 00 @1 25		
do Choice	2 00 @ —		
Blackberries	— @ —		
Figs	— @ —		
Huckleberries	— @ —		
Strawber's ₰ ch	— @20 00		
Pomgranates	— @ —		
Raspberries	— @ —		
Currants, ₰ ch	— @ —		
Quinces ₰ bx	— @ —		
Cranberries ₰ bbl	13 00@14 00		
Peaches, ₰ bx	— @ —		
Pears, ₰ bx	75 @1 00		
do Choice	2 00 @3 00		
Crab apples, ₰ bx	— @ —		
DRIED FRUIT.			
Apples, ₰ lb	7½@ 9		
Pears, ₰ lb	8 @13		
Peaches, ₰ lb	12 @13		
Apricots, ₰ lb	11 @15		
Plums, ₰ lb	7 @ 8		
Pitted, do ₰ lb	18 @20		
Raisins, imported	3 25 @3 75		
Cal. Raisins	8 @ 12½		
Black Figs, ₰ lb	5 @10		
White, do	8 @10		
Prunes	12½ @17		
Citron	25 @ 30		
Zante Currants	9 @ 10		
VEGETABLES.			
Asparagus	— @—		
Beets	— @—		
Cabbage, ₰ 100 lbs	50 @62½		
Carrots, per ton	8 00@10 00		
Cauliflower, doz	50@15		
Celery, doz	50 @75		
Garlic, ₰ lb	— @ 6		
Green Peas	— @10		
Green Corn ₰ doz	— @ —		
Sum'r Squash ₰ box	— @—		
Marro'fat Sq'sh, tn	6 00@8 00		
Artichokes, ₰ doz	— @—		
String Beans, ₰ lb	— @ —		
Lima Beans	— @—		
Parsnips	— @—		
Shell Beans	2 @ 3		
Peppers, green, bx	75 @1 00		
Okra	4 @ 5		
Cucumbers, ₰ box	1 25@1 75		
Tomatoes, box	1 00@ 1 50		
Egg Plant, bx	— @ —		
Rhubarb	— @—		
Lettuce	— @ —		
Turnips, pr ton	— @ —		
Mushrooms, ₰ lb	8 @ 10		

RETAIL GROCERIES, ETC.

WEDNESDAY M., January 5, 1876.

Butter, Cal. ch'ice	35	@	45
Cheese, ₰ lb	18	@	30
Lard. Cal., ₰ lb	—	@	18
Flour, ex. fam, bl	6 25	@6	50
Corn Meal, ₰ lb	2½	@	3
Sugar, wn. orsh'd	12½	@	13
do lt. brown, ₰ lb	8	@	9
Coffee, green, ₰ lb	23	@	35
Tea, fine blk, 50, 65, 75		@1	00
Tea, finst Jap, 55, 75, 90		@1	00
Candles, Admant'ei	5	@	25
Soap, Cal., ₰ lb	7	@	10
Rice, ₰ lb	8	@	12½
Yeast Powders, 1	50	@2	00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Can'd Oysters, dz	2 00	@3	50
Syrup, S F. Gol'n.	65	@	75
Dried Apples	8	@	10
Dr'd Ger. Prunes	15	@	20
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15
do Peeled	—	@	25
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@5	00
do Fr. Claret	1 00	@2	50
do Cal., dz. bot	3 00	@4	50
Whisky, O.B, gal	3 50	@5	00
Fr. Brandy	4 00	@8	00

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., January 5, 1876.

BEANS.			
Bayo, ₰ ctl	—	@2	75
Butter	1 25	@	—
Pea	—	@	1 90
Pink	1 90	@	2 00
Sm'l wh	1 70	@	1 87
BROOM CORN.			
Common, ₰ lb	2	@	3
Choice, do	4	@	5
COTTON.			
Cotton, ₰ lb	15	@	18
DAIRY PRODUCE, ETC.			
BOTTER.			
Cal. Fresh Roll per lb	30	@	35
Point Reyes	—	@	37½
Firkin	30	@	32½
W'st'n Reserve	17	@	22½
New York	21½	@	30
CHEESE.			
Cheese, Cal	15	@	17
Eastern	16	@	20
EGGS.			
Cal. fresh ₰ doz	—	@	62½
Ducks'	—	@	55
Eastern	15	@	30
Oregon	—	@	50
FEED.			
Bran, per ton	—	@22	50
Corn Meal	29 00	@30	00
Hay	15 00	@19	00
Middlings	30 00	@—	—
Oil cake meal	—	@37	50
Straw, ₰ bale	—	@—	75
FLOUR.			
Extra ₰ hbl	5 75	@6	25
Superfine	4 75	@5	00
FRESH MEAT			
Beef 1st quality lb	8	@	9
Second do	6	@	8
Third do	5	@	5½
Lamb	—	@	—
Mutton	5	@	6
Pork, undressed	6¾	@	6⅞
do, dressed	—	@	9¾
Veal	5	@	7
Milk Calves	9	@	10
GRAIN, ETC.			
Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Chevalier	—	@	1 50
Corn, White	1 05	@	1 10
do Yellow	1 05	@	1 15
Oats	—	@	2 00
Rye	1 50	@	1 55
Wheat shipping	1 90	@	—
do milling	1 95	@	—
HIDES.			
Hides, dry	15	@	16½
do wet salted	7	@	7½
HONEY, ETC.			
Beeswax, per lb	25	@	27½
Honey in comb	18	@	22½
do Strained	6	@	12½
HOPS.			
New crop	12½	@	15
NUTS—Jobbing.			
Alm'ds h'rd sh'l lb	8	@	10
do, soft sh'l	16	@	20
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18
ONIONS.			
Union City ctl	—	@	1 12½
Stockton	50	@	1 00
POTATOES.			
Petaluma	1 20	@	1 40
Salt Lake	1 65	@	1 70
Sac River	1 00	@	1 25
Humboldt	1 25	@	1 50
Early Rose	—	@	2 25
Sweet	—	@	3 00
POULTRY & GAME			
Hens, per dz	6 50	@7	50
Roosters	6 50	@7	50
Broilers	4 50	@5	50
Ducks, tame, dz	8 00	@9	00
do Mallard	2 50	@3	50
do Canvass	3 50	@4	50
Geese, per pair	2 50	@4	00
do Wild Gray	3 00	@4	00
do White	1 50	@2	00
Turkeys, Live, lb	17	@	18
do Dressed	20	@	22
Quail, per doz	1 10	@1	75
Snipe, Eng., doz	1 50	@2	00
Doves, per dozen	50	@	75
Rabbits	1 00	@1	25
Hare, per doz	2 00	@3	00
Venison, per lb	7	@	9
PROVISIONS.			
Cal. Bacon, L'ght	15	@	15½
do Medium	14	@	14½
do Heavy	14	@	—
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'rn Should's	—	@	10
Hams, Cal	13	@	14½
do Whittakers	20	@	23
do Armour	20	@	21
do Boyd's	20	@	22
do Worster's	—	@	21
SEEDS.			
Alfalfa, Chile lb	8½	@	11½
do California	11	@	14
Canary	—	@	20
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennia do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do. Brown	3	@	3½
Rape	9	@	11
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	75	@1	00
Orchard do	30	@	35
Red Top do	25	@	30
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy	11	@	13
TALLOW.			
Crude	6½	@	7
Refined	9	@	9¼
WOOL, ETC.			
FALL—			
Seedy	11	@	12½
Choice free	12	@	18
Burry	9	@	11
Oregon	—	@	—

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., January 5, 1876.

POULTRY, GAME.			
Chickens	50	@1	00
Hens	75	@	88
Eggs, Hens	55	@	60
do Ducks'	—	@	60
do Farallones	—	@	—
Turkeys, ₰ lb	15	@	25
Ducks, each	1 00	@1	25
Geese, wild, pair	—	@	—
Tame, ₰ pair	3 00	@4	00
Snipe, ₰ doz	—	@	—
do English	—	@3	00
Quail, per dozen	—	@2	00
Prairie Ch'k s, pr	—	@	—
Hares, each	25	@	35
Rabbits, each	15	@	—
Squirrels, ₰ doz	—	@	15
Beef, tend, ₰ lb	15	@	18
Corned, ₰ lb	8	@	10
Smoked, ₰ lb	—	@	15
Porter House St'k	—	@	20
Sirloin do	12	@	15
Round do	10	@	10
Pork, rib, etc., ₰ lb	12	@	12½
Chops, do, ₰ lb	15	@	—
Veal, ₰ lb	10	@	15
Outlet, do	15	@	25
Mutton-chops, ₰ lb	12	@	12
Leg Mutton, ₰ lb	8	@	10
Lamb, ₰ lb	—	@	—
Venison	12	@	20
do dry	20	@	25
Antelope	15	@	20
Tongues, beef	50	@	75
do, do, smoked	75	@1	00
Tongues, pig, lb	12½	@	—
Bacon, Cal., ₰ lb	16	@	20
Hams, Cal. ₰ lb	16	@	20
FISH, MEATS, ETC			
Flounder, ₰ lb	15	@	35
Salmon, ₰ lb	25	@	35
Smoked	—	@	8
Rock Cod, ₰ lb	15	@	—
Cod Fish, lb	12	@	15
Perch, lb	15	@	—
Lake Big. Trout	—	@	30
Smelts, ₰ lb	10	@	12½
Herring, Sm'kd.	75	@	—
do fresh	—	@	5
Tomcod, ₰ lb	—	@	20
Terrapin, ₰ doz	—	@	—
Mackerel, p'k, ea	12½	@	—
Fresh, do lb	—	@	—
Sea Bass, ₰ lb	—	@	—
Halibut	—	@	75
Sturgeon, ₰ lb	5	@	6
Oysters, ₰ 100	75	@	—
Chesp. ₰ doz	50	@	75
Clams ₰ 100	—	@	50
Mussels do	—	@	25
Turbot	65	@	75
Crabs ₰ doz	1 00	@1	25
do Soft Shell	40	@	50
Shrimps	8	@	10
Sardines	—	@	15
Anchovies	—	@	8
Soles	—	@	40
Young Trout, bay	—	@	—
Skate, each	15	@	25
Whitebait, ₰ lb	—	@	15
Crawfish ₰ lb	8	@	10
Green Turtle	—	@	—

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₰ M	$18 00
Rough refuse, ₰ M	14 00
Rough clear, ₰ M	30 00
Rough clear refuse, M	20 00
Rustic, ₰ M	32 50
Rustic, refuse, ₰ M	24 00
Surfaced, ₰ M	30 00
Surfaced refuse, ₰ M	20 00
Flooring, ₰ M	28 00
Flooring, refuse, ₰ M	20 00
Beaded flooring, ₰ M	30 00
Beaded floor, refuse, M	25 00
Half-inch siding, ref. M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	18 00
Half-inch Battens, M	22 50
Pickets, rough, ₰ M	13 00
Pickets, rough, p'ntd	16 00
Pickets, fancy, p'ntd	25 00
Shingles, ₰ M	3 00

PUGET SOUND PINE —Retail Price.

Rough, ₰ M	22 50
Fencing, ₰ M	22 50
Flooring and Stcp, ₰ M	32 50
Flooring, narrow, ₰ M	35 00
Flooring, 2d quality, M	25 00
Laths, ₰ M	3 50
Furring, ₰ lineal ft	—

REDWOOD—Retail.

Rough, ₰ M	22 50
Rough refuse, ₰ M	18 00
Rough Pickets, ₰ M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, ₰ M	30 00
Siding, ₰ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ₰ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₰ M	40 00
Battens, ₰ lineal foot	⅝
Shingles, ₰ M	3 2

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., January 5, 1876.

BAGS.			
Eng. Stand Wht	10	@10½	
Nevills & Co's			
Hand Sewed	10	@10½	
22x36		@10	
24x36	11	@11½	
24x40	12	@12½	
Machine do 24x49	12	@12½	
" " 23x40	11¾	@11½	
" " 22x40	11	@11¼	
" " 22x36	9¾	@10	
Flour Sacks ⅛s	9½	@11	
" " ¼s	6¼	@ 7	
" " ½s	4½	@ 5	
Hessian 60-in	12¼	@14½	
do 45-in	8½	@ 9	
do 40-in	7½	@ 8	
Wool Sacks, 3½ lbs	45	@50	
do 4 "	50	@52½	
Stand. Gunnies	—	@16	
single seam do	—	@—	
Bean Bags	7½	@ 8	
Barley Bags 24x35	11¾	@12	
do 23x40	11½	@12	
do 24x40	12	@12½	
Oat Bags, 24x40	12	@12½	
do 28x36	—	@13½	
Derrick's "E. W."	9½	@10	
do "E	—	@9½	
CANNED GOODS.			
Asst'd Pie Fruits in 2½ lb cans	2 75	@ 3 60	
do Table do	3 75	@ 4 25	
Jams & Jellies	4 25	@ —	
Pickles ½ gl	—	@ 3 50	
Sardines, qr box	65	@ 1 90	
do hf boxes	3 00	@— —	
COAL—Jobbing.			
Australian, ₰ ton	—	@ 9 00	
Coos Bay	8 00	@10 00	
Bellingham Bay	—	@ 8 50	
Seattle	9 25	@10 50	
Oumberl'd	16	@— 18	
Mt. Diablo	6 25	@8 25	
Lehigh	—	@22 00	
Liverpool	10 00	@11 00	
West Hartley	—	@14 00	
Scotch	9 00	@11 50	
Scranton	13 00	@16 00	
Vancouver's Isl.	10 50	@13 00	
Charcoal, ₰ sk	75	@ —	
Coke, ₰ bbl	—	@ 60	
COFFEE.			
Sandwich Island	—	@ 21½	
Costa Rica per lb	22½	@ —	
Guatemala	—	@ 22½	
Java	—	@ 30	
Manilla	—	@ 21½	
Ground in cs	25	@ —	
Unicorv	—	@ —	
FISH.			
Sac. Dry Cod, new	4	@ 4½	
cases	6	@ 6½	
do boneless	8½	@ 10	
Eastern Cod	7½	@ 8	
Salmon in bbls	3 50	@9 00	
do ½ bbls	4 50	@5 00	
do 2 lb cans	2 25	@2 30	
do 1 lb cans	1 25	@1 30	
do Col. R. ½ lb	5 00	@5 50	
Pick. Cod, bbls	22 00	@— —	
do ½ bbl	11 00	@— —	
Mack'l, No. 1, ½ bbls	9 00	@11 00	
" Extra	—	@12 00	
" in kits	1 90	@2 00	
" Ex mess	3 00	@3 50	
" Ex mess. ½ bs	—	@12 00	
Pio'd Herr'g, hr	3 00	@ 3 50	
Bos. Sm'k'd Her'g	40	@ 50	
HARDWARE.			
Amoskeag handled Axes $16@17; do unhandled do $13@14—less 50c in 5 case lots.			
Amoskeag Hatchets, Shingling, No 1, $7.25; No. 2, $8; No. 3, $8.25. Do do, Claw, No. 1, $7.75; No. 2, 8.50; No. 3, $9.25—less 10 per cent.			
Locks, Yale Lock Mf'g Co., discount 33⅓ per cent. from list.			
Planes, Ohio Tool Co., discount 30 per cent. from list.			
Am. Tack Co's Cut Tacks 65½ per cent. discount and 5 per cent. extra. Finishing and Clout Nails net list; 3d fine Nails $7.40 per keg.			
Ohio Butt Co's Loose Joint Butts 50 per cent. do Fast, 35 per cent off list.			
Machine Bolts, 20@35 off.			
Square Nuts, 2@3c off list.			
Hexagon Nuts 2@3c off list.			
Wrought Iron Washers, 2@3c off list.			
Lag Screws, 15 per cent off list.			
MISCELLANEOUS.			
Pulu	—	@ 9	
NAILS.			
Assorted size, lb	3 75	@4 00	
OILS.			
Pacific Glue Co			
Neat Ft No. 1	1 00	@ 90	
Pure	—	@ —	
Castor Oil, No. 1	—	@1 25	
Baker's A A	—	@1 40	
Cocoanut	55	@ 60	
Olive Plagniol	5 50	@5 75	
do Possel	4 75	@5 00	
Palm lb	9	@ —	
Linseed, raw	80	@ —	
do boiled	—	@ 75	
Chins nut in cs	70	@ 75	
Sperm, crude	—	@1 40	
do bleached	1 90	@2 25	
Coast Whales	47½	@ 50	
Polar, refined	—	@ —	
Lard	—	@ —	
Oleophine	—	@ 28	
Japan, lacquered bxs, 4½ and 5 lbs	45	@ 67	
Japan do, 3 lb bxs	45	@ 90	
do pl'n bx, 4½ lb	35	@ 65	
do ½ & 1 lb paper	30	@ 55	
TOBACCO—Jobbing.			
Bright Navys	50	@ 65	
Dark do	50	@ 55	
Paces Tin Foil	—	@ 75	
Gregory	70	@ —	
Dw't Twist	65	@ 75	
Light Pressed	70	@ 60	
Hard do	50	@ 60	
Conn. Wrap'r	40	@ 60	
Penn. Wrapper	20	@ 45	
Ohio do	15	@ 20	
Virgi'a Smok'g	45	@1 00	
Fine cut chew'g, gr	3 50	@9 50	
Fine cut chewing, buc'ts	75	@	
Banner flue cut	—	@9 00	
Cal Smoking	37	@1 00	
TURPENTINE.			
Easteru	51½	@55	

LEATHER.

[WHOLESALE.]

WEDNESDAY M., January 5, 1876.

City Tanned Leather, ₰ lb	22@29
Santa Cruz Leather, ₰ lb	22@28
Country Leather, ₰ lb	22@29
Stockton Leather, ₰ lb	28@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 13 Kil., per doz	68 00@ 79 00
Jodot 14 to 19 Kil., per doz	82 00@94 00
Jodot, second choice, 11 to 16 Kil. ₰ doz	57 00@ 74 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	63 00@ 67 00
Cornellian Females, 14 to 16 Kil	71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil	58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil	66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil	72 00@ 74 00
Simon, 18 Kil., ₰ doz	61 00@ 62 00
Simon, 20 Kil. ₰ doz	65 00@ 67 00
Simon, 24 Kil. ₰ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
Frenoh Kips, ₰ lb	1 00@ 1 35
California Kip, ₰ doz	40 00@ 60 00
Frenoh Sheep, all colors, ₰ doz	8 00@ 15 00
Eastern Calf for Backs, ₰ lb	1 00@ 1 25
Sheep Roans for Topping, all colors, ₰ doz	9 00@ 13 00
Sheep Roans for Linings, ₰ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 4 50
Best Jodot Calf Boot Legs, ₰ pair	5 00@ 5 25
Good Frenoh Calf Boot Legs, ₰ pair	4 00@ 4 75
Frenoh Calf Boot Legs, ₰ pair	4 00@ —
Harness Leather, ₰ lb	24@ 32½
Fair Bridle Leather, ₰ doz	48 00@ 72 —
Skirting Leather, ₰ lb	33@ 37½
Welt Leather, ₰ doz	30 00@ 50 00
Bnff Leather, ₰ foot	17@ ⅝
Wax Side Leather, ₰ foot	17@

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by CHARLES SUTRO & Co.]

SAN FRANCISCO, January 5, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 88¾ to 89¼.

GOLD in N. Y. 112½.

GOLD BARS, 880@890. SILVER BARS, 7½ and

Nurserymen.

[Established 1853.]

SEEDLING STOCKS and PLANTS

FOR NURSERYMEN.

Apple Seedlings, fine.....$10.00 per 1000
Pear Seedlings, fine.....$15.00 per 1000
Plum Seedlings, Miroboian, Best Froneh Stock does not Sucker.....$40.00 per 1000
Cherry Mazzard Seedlings.....$12.00 per 1000
Cherry Mahaleb Seedlings.....$15.00 per 1000
Blue Gums in Variety.....$5.00 to $10.00 per 100

Magnolia Grandiflora—all sizes—large stock.

Golden Arborvitæ.....
Heath-leaved Arborvitæ....
Cratagus Arboria.....
Lauristinus.....
Sweedish and Irish Juniper
Medeterranian Heath.....
Loquat or Japan Plum.....
} Fine Plants—Large Stock.

Oranges and Lemons, large stock, best European, Australian, and Chinese varieties, all grafted, from $12.00 to $18.00 per dozen. **Large Palms, Large Tree Ferns, Large Auricarias,** at special prices, with the usual large stock of Fruit and Ornamental Trees.

BERNARD S. FOX,
San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery St., S. F.

1865. 1875.

Hannay Bros.' Nurseries.

We the undersigned have been eugsged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	28	250
Prnoe "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	20	—	Fertille de Palican	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

ROCK'S NURSERIES,

SAN JOSE, CAL.

The attention of Nurserymen and Planters is invited to my large stock of

FRUIT TREES

Of the very best varieties for Market, Shipping and Drying. Also

GRAPEVINES, CURRANTS, GOOSEBERRIES, BLACK BERRIES AND RASPBERRIES. SHADE TREES, EVERGREENS, BLUE GUMS AND SHRUBS. GREEN HOUSE PLANTS, BEDDING PLANTS, ETC.

Send for a Catalogue.

JOHN ROCK, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,
19v8-tf Petaluma, Sonoma Co., Cal.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees, (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.

November, 1875.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

W. R. STRONG, Seedsman. Established 1857. 1876. ROBT. WILLIAMSON, Nurseryman, Established 1865.

W. R. STRONG & CO.

SEEDS. TREES.

San Francisco Office, 418 & 420 Clay Street. Sacramento Office, 8 & 10 J Street.
Nursery Grounds, Sacramento County.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, - - - W. R. Strong & Co.
House in San Francisco, - - Strong & Williamson.

P. S. Alfalfa, Chile grown, 7 to 11c; California, 11 to 15c, as per quantity and grade Guaranteed fresh and genuine.

The Aughinbaugh Blackberry.

This new blackberry is a California production, of large size, firm, and excellent flavor. It ripens from May until August. The last of the crop of berries sold readily at 40 cents per pound when the "Early Wilson" brought 20 cents at the same time. Plants are now ready for transplanting and for sale at my residence on Central avenue, west of Webster street, Alameda, and GEO. F. SILVESTER'S, 317 Washington St., San Francisco.

PRICES:

For one doz., by mail, postpaid..... $3 00
Less than one doz., by mail, postpaid, each.... 50
For 100, forwarding expenses paid by purchaser 15 00
For 1000, forwarding expenses paid by purchaser 100 00

Send your address and receive circular containing particulars FREE.

G. AUGHINBAUGH.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,
P. O. Box, 722. 516 Battery Street.

RIVER BANK NURSERY,

San Jose, Cal.

Established - - - 1855.

FRUIT AND ORNAMENTAL TREES in great variety. Choice and Rare Variety of EVERGREENS, SHRUBS, ROSES, BEDDING PLANTS, PALMS, MAGNOLIAS, FERNS, TUBEROSES, GLADIOLAS, Etc., with general collection of Greenhouse Plants, Hanging Baskets, Etc.

Nursery and Greenhouses, corner Berryessa road and 12th street, two blocks from terminus of North Side horse railroad. Address

L. F. SANDERSON,
Nurseryman and Florist, San Jose.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of **Evergreen and Deciduous trees. Australian Gum trees** in variety, by the hundred or thousand. **Monterey Cypress** in quantities and sizes to suit all. **Orange and Lemon trees** at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,
325 Washington street. S. F.

Formerly at 315 Washington street.

BLUE GUM TREES.

400,000 For Sale. Price from $30 to $50 per 1,000. Also 1,000 Cypress trees.

BAILEY & CO.,

Depot, 118 East Twelfth street, Oakland, Alameda county, Cal. Lock Box 80.

FOR SALE—BLUE GUM TREES.

The undersigned has the pleasure of announcing to those contemplating planting largely this season, the nursery stock of the well known Gum Tree Farm, at $15 per thousand, nursery price. The young stock is extensive, ranging in hight from 8 inches to 1½ feet, specially grown for Forest Culture. Address, ISAAC COLLINS, Haywood, Alameda Co., Cal. Nursery situated on Redwood road, 1½ miles from Haywood.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

LOS GATOS NURSERIES,

S. Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

This is a beautiful Quarterly Journal, finely illustrated, and containing an elegant colored frontispiece with the first number. Price only twenty-five cents for the year. The first number for 1876 just issued. Vick's Flower and Vegetable Garden, 35 cents; with cloth covers, 65 cents. Address

JAS. VICK, Rochester, N. Y.

CAMELLIAS.

We offer a large stock of very fine plants at from $33 to $100 per 100. For catalogues of these, as well as of **Azaleas, Rhododendrons and Evergreen Trees** in great variety, address

R. B. PARSONS & CO.,
Box 99, Flushing, N. Y.

Grapevine Cuttings.

B. Malvasia, Zinfindel, Muscat Alexandria, Berger, Large White Mslaga and many others. Price, three to five dollars per thousand.

H. W. CRABB,
Oakville, Napa County, Cal.

1,000 000 Blue Gum Trees

At $10 per 1000 in lots of 10,000, or $15 per 1000 in smaller quantities. Address W. A. T. STRATTON, Pacific Forest Tree Nursery, Petaluma, Cal.

Lands and Homes for Sale.

Rich Farm Land For Sale.

L. F. MOULTON, of Colusa,

OFFERS FOR SALE VERY CHEAP, FOUR THOUSAND ACRES OF EXTRA WHEAT OR VEGETABLE LAND, ADJOINING WHICH HAS GROWN FORTY BUSHELS TO THE ACRE THIS YEAR, AND IS EASY TO IRRIGATE, YET HIGH LAND, AND ON THE LINE OF THE COLUSA AND CHICO RAILROAD.

This is the best and cheapest land in the State.

Address the owner, at Colusa, for particulars.

FRUIT RANCH FOR SALE.

Ten miles south-east of San Bernardino. Eighteen acres of vineyard. Ten acres of alfalfa. Several thousand young fruit trees. Abundance of water. Beautiful location and only five miles from the railroad. Terms easy. For particulars, address

WM. CRAIG, San Bernardino, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART, Eureka, Humboldt Co., Cal.

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood Superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage home industry, and get superior goods at less cost than the imported article.

Ask your Grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,
MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F
1y6-oow

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

Trade Price-List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,
607 Sansome St., San Francisco.

Will be mailed free to all applicants. This is one of the largest and most complete **Catalogues** published: contains about 250 pages, over 600 fine engravings, 2 elegant colored plates, and gives full descriptions, prices, and directions for planting over 1200 varieties of Vegetable and Flower Seeds, Bedding Plants, Roses, &c., and is invaluable to Farmer, Gardener and Florist. Address,

D. M. FERRY & CO.,
Seedsmen and Florists, DETROIT, Mich.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

Illustrated Catalogue free on application.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

FLOWER SEEDS. VEGETABLE SEEDS.

Spooner's Prize Flower Seeds

Spooner's Boston Market Vegetable Seeds.

The cheapest and best seeds in the market. Send two 3 cent stamps for our illustrated catalogue and see the prices.

W. H. SPOONER, Boston, Mass

ALL ABOUT GARDENING

For Home Use and for Market, in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

GOOD SEEDS

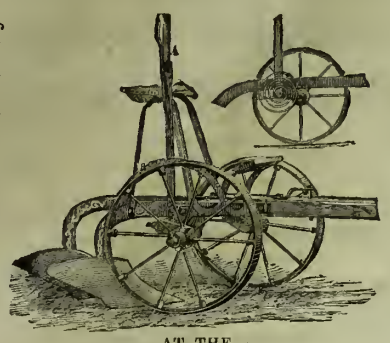
Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

THE PACIFIC RURAL PRESS has a larger Circulation than any other Pacific Coast Weekly, independent of a daily issue.

Agricultural Articles.

OAKLAND GANG PLOW

Fat. and Manufactured by HENRY N. DALTON.



—AT THE—

PACHECO

Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or be raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,
Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

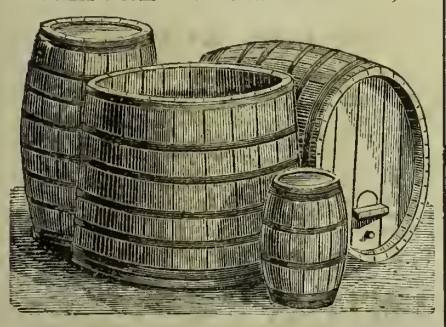
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

DAVID WOERNER,



COOPER,

No. 104 and 112 Svear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required.

eow-bp.

Office of Drain Pipe Works

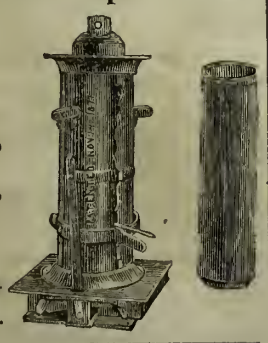
S. W. Corner Sacramento and Montgomery Sts., S. F.

DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted



E. T. MENOMY
Proprietor.

GUANO FOR SALE,

In Lots to Suit, by

CROSS & CO.,

316 California Street, - - - San Francisco

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow. Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..	$85 00	Extra Shares—No. 1.....	$3 00
No. 2 " " " " ..	90 00	" " No. 2.....	3 50
Landsides for single Plows..			$2 50
" " Gang Plows...			1 50

All kinds of casting done on short notice.

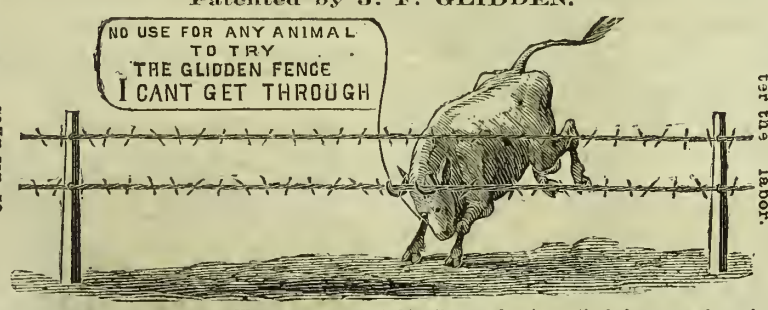
San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.

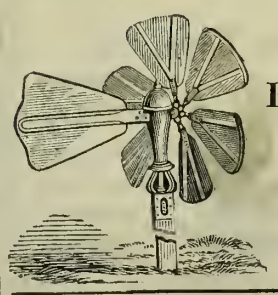


About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
General Agents for the Coast. K and 10th Streets, Sacramento.

AUTOMATIC PUMP.



SOMETHING NEW.

RAISES WATER BY COMPRESSED AIR.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco.

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO, CAL.,

MANUFACTURERS OF

LINSEED, CASTOR AND COCOA NUT OILS,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our Works.

Office—3 and 5 Front Street.

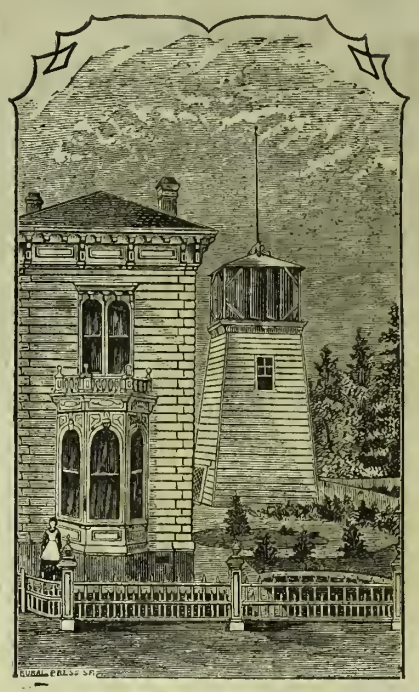
FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

THE TURBINE.



Simplest, Cheapest, and Most Durable.

The Inventor of the Dexter Windmill has made new and useful improvements in Windmills, patented March 16th, 1875, and now feels confident of having the SIMPLEST, CHEAPEST, MOST DURABLE, and

ONLY PERMANENT WINDMILL

IN THE WORLD.

SIMPLEST, because it is less complicated; CHEAPEST, because it never needs repair, standing on a firm foundation; MOST DURABLE, because it is all under cover, and has less rigging to get out of order; ONLY PERMANENT, because the only Windmill in the world that has never been injured by storms. Hundreds of people, who have thought the Dexter perfect, will be glad to observe the SUPERIORITY OF THE TURBINE over all predeccessors. Although much improved, the price of mills remain the same as formerly. Persons who study their own interest will investigate the TURBINE before purchasing any other.

Territory for sale outside of California, at reasonable rates and easy terms.

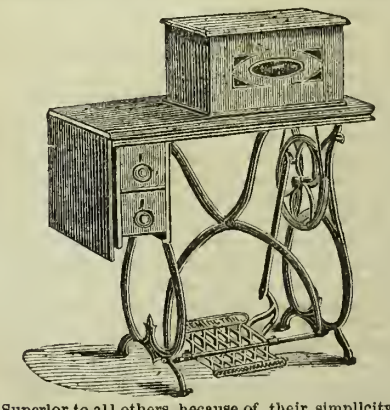
Mills built to order of the best material, and at the shortest notice, by Kimball Manufacturing Company, corner Fourth and Bryant streets, San Francisco. Any orders sent to their address will receive prompt attention.

☞For further information regarding Mills or Territory, send for New Circular. Address,

A. H. SOUTHWICK,
P. O. Box 1385, San Francisco; or
P. O. Box 25, Oakland, Cal.

mr13-1am-bp

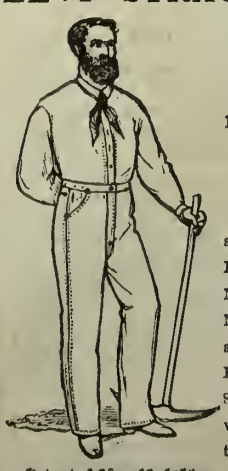
REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

LEVI STRAUSS & CO.,



Patent Riveted Clothing,

14 & 16 Battery St.,
San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

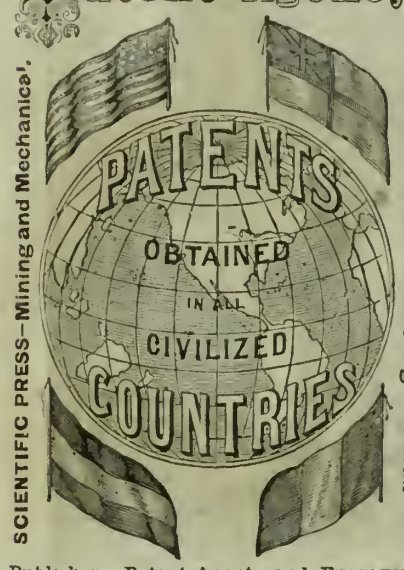
Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

DEWEY & CO'S

SCIENTIFIC PRESS

Patent Agency.



SCIENTIFIC PRESS—Mining and Mechanical.

PACIFIC RURAL PRESS—Agricultural.

Publishers, Patent Agents and Engravers,

No. 224 Sansome Street San Francisco Cal

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
A. O. CHAMPION—Tulare, Fresno and Inyo Counties.
JOHN ROSTRON—California.
A. C. KNOX, California.
G. W. MCGREW—Santa Clara county.
D. J. JAMES—Australian Colonies.
CHAS. T. BELL—Montana, Utah, Idaho and Nevada.

Something of Interest to the Old Folks, and to the Boys and Girls.

THE BOSTON JOURNAL, in a recent issue, says: "Picture to yourself what a magazine for children ought to be—how bright and winning in contents, how pure and stimulating in teaching, how resplendent with pictures and then turn over the pages of ST. NICHOLAS, and you will find your ideal realized."

THE CHICAGO INTER-OCEAN says: "ST. NICHOLAS is an institution of which Young and Old America are as proud as England is of PUNCH. A house without ST. NICHOLAS," continues the writer, "does not deserve to own any boys and girls; no dog should wag its little tail while pressing its nose through the area railings; emphatically, we would observe that should the sun condescend to shine upon that house, his solar majesty would make a big mistake."

THE FIRST VOLUME OF ST. NICHOLAS was a surprise even to the public that had heartily welcomed it, number by number. Newspaper critics expressed enthusiastic approval; children and parents were alike delighted, and congratulatory letters from distinguished men and women poured in upon the publishers and editor. Charles Dudley Warner wrote: "I do not see how it can be made any better, and if children don't like it, it is time to change the kind of children in this country;" Whittier, our great poet, wrote: "It is little to say of this magazine that it is the best child's periodical in the world;" and words of hearty commendation came across the ocean from such earnest workers and popular favorites of the young as Geo. Macdonald, Christina Rossetti, and Canon Kingsley.

Beautifully bound, superbly illustrated, and filled with good things from the best writers, (including three long serial stories), the first volume of ST. NICHOLAS, complete in itself, is a finer Christmas gift for girls and boys to-day than any single book in the market, excepting

St. Nicholas for 1875,

Which, with its magnificent pictures, its two complete serials, and its innumerable shorter stories, sketches, poems, fairy tales, rhymes and jingles, hits of wisdom, its French, German and Latin stories—its fun and its puzzles, Jack-in-the-pulpit, the Letter-box, etc., etc., is even more superbly attractive.

St. Nicholas for 1874 and 1875, 4 Vols.

For the convenience of libraries, and because many children find the two large volumes for '74 and '75 rather bulky to handle, we have had these twenty-four numbers bound in four elegant volumes, and inclosed in a neat box, under the general title of

THE ST. NICHOLAS LIBRARY.

These four volumes are sold for $8, being only two dollars a volume—a beautiful and valuable Christmas present for an entire family of young folks.

THE NEW-YORK TRIBUNE says: "In the avalanche of immoral literature that threatens the children, some strong, vitally wholesome, and really attractive magazine is required for them, and ST. NICHOLAS has reached a higher platform, and commands for this service wider resources in art and letters, than any of its predecessors or contemporaries."

THE SUNDAY SCHOOL TIMES says: "A cleaner, purer, more trustworthy periodical cannot be named. The magazine does not claim to be religious, but it is on the side of all that is true and good, from beginning to end."

The religious press all over the country heartily commends ST. NICHOLAS, and virtually echoes the opinion of the New York CHRISTIAN UNION, that it is "A DELIGHTFUL MAGAZINE FOR ALL CHILDREN BETWEEN FIVE AND EIGHTY-SEVEN."

St. Nicholas for 1876

Promises even greater attractions than the previous volumes. A strong feature of the new volume is an AMERICAN SERIAL STORY,

"The Boy Emigrants," by Noah Brooks,

Giving the adventures of a party of boys on their long journey across the plains, with a vivid portraiture of their LIFE IN CALIFORNIA DURING THE DAYS OF THE GOLD FEVER. Mr. Brooks brings to this work, in addition to his well known literary gifts, a thorough familiarity with the features of that wild country and the people then flocking toward it. What he has to say of them is pervaded with a subtle and intense savor of reality that enables the reader to follow the characters in their adventures with a positive sense of companionship. The contagion of the "gold-fever;" the great difficulties and perils which beleaguered their journey across the plains and mountains, and finally the adventurous, half-civilized, and yet, in a certain rude way, poetic life in the mines of California, are all described with wonderful truthfulness and skill. Add to this the elevated tone pervading the work, and the irresistible attraction which such a narrative possesses for boys, and the value of this stirring, healthy serial becomes evident.

There is to be another and shorter serial, beginning in January and running through three numbers:

"Jon of Iceland," by Bayard Taylor.

A delightfully vivid story of an Icelandic boy's career, full of incidents which could happen in no other country, and graphically touching upon the customs, life, and general features of that strange land.

The best general reading for boys and girls is insured by a list of present and promised contributors, among whom are:

WILLIAM CULLEN BRYANT, GEORGE MACDONALD, CHRISTINA ROSSETTI, LOUISA M. ALCOTT, J. T. TROWBRIDGE, T. B. ALDRICH, ELIZABETH STUART PHELPS, ABBY MORTON DIAZ, HARRIET PRESCOTT SPOFFORD, DONALD G. MITCHELL, H. H., EDMUND C. STEDMAN, LUCY LARCOM, CHAS. DUDLEY WARNER, BRET HARTE, FRANK R. STOCKTON, ELIZABETH AKERS ALLEN, T. W. HIGGINSON, LUCRETIA P. HALE, PROF. R. A. PROCTOR, MRS. OLIPHANT AND REV. EDWARD EGGLESTON.

Special papers are secured or promised, viz: Astronomy for Young Folks (Prof. Proctor); Chapters on Windsor Castle and English History (Mrs. Oliphant); Talks With Girls (Mrs. A. D. T. Whitney, H. H., Louisa M. Alcott, Susan Coolidge and Mrs. Dodge); Little Housekeepers' Pages (Mariau Harland, author of "Common Sense in the Household"). Also, incidents of American History, Practical Handwork for Boys and Girls, Sketches of Adventure and Travel, Fairy Tales, and Stories of Home Life. A Young Contributors' department is to be added to the well known and approved Regular Features; and, in short, the Magazine will be made as useful, lively, and entertaining as the purest and best writers and artists can make it.

SOME OF THE FINEST WORKS OF THE GREAT PAINTERS have been engraved for ST. NICHOLAS, and its illustrations for 1876 will surpass anything ever yet attempted in Juvenile literature.

$3.00 A Year; $4 for Bound Vol.

We will send the magazine for one year, beginning November, 1875, and either of the two bound volumes as above, post paid, for $7.00; or, a subscription one year and the two volumes for $10.00. The price of the 4-volume edition is $8.00. All newsdealers and booksellers will receive subscriptions and supply volumes at above rates.

NOVEMBER and DECEMBER numbers FREE to all new subscribers for 1876. SCRIBNER'S MONTHLY and ST. NICHOLAS, $7.

SCRIBNER & CO.,

743 and 745 Broadway, New York.

TRAVELING

AGENTS

WANTED

For this paper. Experienced canvassers can make excellent wages. None but intelligent persons of good recommendation need apply.

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—cost nearly $245,000. Will be kept First-class, at $2.00 per day, and lees by the week or month.

---

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

A Card.

Watsonville, Dec. 6, 1875.

To C. P. Hoag, Gen. Agent, 118 Beale street, S. F.,

Dear Sir.—We have had the Eclipse windmills in use several months. They have worked to our entire satisfaction, [illegible] lightest breeze. [illegible] lating apparatus working to perfection in the severest gales. We take pleasure in recommending the Eclipse to all desiring windmills.

Yours truly,

Otto Stoesser, E. S. Peck, J. M. Rodgers and E. J. Martin.

Reasons why the Eclipse Windmills should be Preferred.

1.—It has been tested eight years in almost every State in the Union.
2.—It is the most simple in principle, strongest in construction and possesses more power than other mills.
3.—It is noiseless in operation, beautiful in design, and well finished. Has no loose joint to get out of order.
4.—Has hardly any friction and will run in light winds. It is a perfect self-regulator.
5.—It is sanctioned and adopted by the leading railroads for their water stations, and pronounced by railroad engineers to be built upon true mechanical principles.
6.—The entire mill is guaranteed, and any casting or portion of a mill breaking from defect in material or workmanship will be replaced free of charge without delay.
7.—The rims are straight, instead of steamed or bent, as in other wheels, and the entire mill is durable.
8.—The cost is less than others when the actual power, durability and safety are considered.

Write me or call.

CHAS. P. HOAG,

General Agent for Pacific Coast. 118 Beale street, between Mission and Howard, San Francisco, Cal.

THE Twentieth Edition of our celebrated Seed Catalogue and Amateur's Guide to the Flower and Kitchen Garden, containing upwards of 200 pages, including several hundred finely executed engravings of favorite flowers and vegetables, and a beautiful colored chromo, with a Supplement for 1876, will be mailed to all applicants upon receipt of 35 cents. An edition elegantly bound in cloth, $1.

BLISS' ILLUSTRATED GARDENERS' ALMANAC

For 1876, and Abridged Catalogue of Garden and Flower Seeds, contains upwards of 100 pages, and embraces a monthly Calendar of Operations and a price list of all the leading Garden, Field and Flower Seeds, with directions for their culture. A copy will be mailed to all applicants inclosing ten cents. Address

B. K. BLISS & SONS, 34 Barclay St.,
P. O. Box 5712, New York.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Craesanne, Royal d' Hiver, Doyenue, Beurre Olairgean and Duchesse d' Angouleme, (fall pear).
Cherry: Guigne Marbree, Grosse de Mezel and Noire Lueiante.
Chestnut: Marron de Lyon and Combale.
Walnut: Præparturiens. Four varieties of Filbert plants. All imported varieties.
Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.
Every variety guaranteed to be true to name.

FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of J. M. DUDLEY,
Dixon, Solano County, Cal.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

[illegible] DS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,

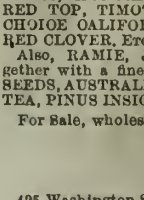
SEEDSMAN,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.



Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord | J. REGENSBURGER.....S. F.
J. VOLLMAR.....S. F. | A. W. THOMPSON, Petaluma
J. D. BLANCHAR.....Napa | F. A. KIMBALL....San Diego
C. MITCHELL GRANT.....| I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street. S. F.

CAMELLIAS. A large stock of very fine plants at rates from $35 to $100 per 100 according size and kinds. Also

Rhododendrons, Azaleas and Roses.

PURPLE BEECH and other RARE and ORNAMENTAL TREES.

ROSES and the Best FLOWERING SHRUBS.

CLEMATIS OF MANY NEW AND FINE SORTS.

Catalogues Free. Address

R. B. PARSONS & CO.,
[Box 99,] Flushing, New York.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore),
425 Washington St., San Francisco. 22v7-1y

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

FARMERS write for your paper.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, JANUARY 15, 1876. [Number 3

The Oakland Nurseries.

All mankind agree in invoking blessings on the man who plants trees. Whether it he for the grateful shade, for the luscious fruit, or for the heauties of hlossom and perfume, he who works to cover the surface of the earth with salutary growths does a public service. There is a class of men who do much to aid the tree-planter and amateur orchardist and florist. They are the nurserymen. Although they labor like other industrial classes for a livelihood and a competence, still, when they are true to their calling, they are dispensers of much useful truth and knowledge, and are entitled to public thanks. A nurseryman who is true to his calling must be an intelligent man. He must be quick to seek far and near all those varieties of plant growth which can be propagated under the conditions which prevail in his locality. He must study their propagation and the ways to accomplish it. He must have a good eye for symmetry and beauty. When he combines honesty and good taste, and builds a reputation by furnishing his customers just such goods as his catalogue describes, he is entitled to credit as a henefactor.

As the time for tree planting is at hand we think we can do our readers good service by a few visits to the nurserymen, for the purpose of commenting upon the features which we observe in their establishments. We began by a visit to Oakland on Thursday last, and though our trip among the nurserymen was cut short by the torrents of rain which fell, we succeeded in gaining notes concerning two establishments which may be of interest to tree planters.

Eastern Trees.

We stopped first to look over a stock of trees and shrnbs which has been recently deposited for sale at Oakland Point by T. D. & L. A. Crandall. We saw a eonsiderable supply of thrifty looking young trees. There are perhaps two dozen varieties of shade and ornamental trees, the leading selections being maples, lindens, elms, mountain ash, tulip, magnolia and forest nut trees. The trees are grown from the seed in Ohio nurseries, owned by Messrs. Crandall. The proprietors claim to be doing a large business in the sale of their stock. They believe them to he perfectly adapted for this climate, and meet doubters with the experience of Captain Fowler, of Berkeley. Captain Fowler brought to California several years ago twelve Eastern maple trees. He carried them in his trunk, and he came by water. Upon arriving at Berkeley he set out these trees, and now has maple trees eight and ten inches in diameter growing on his place. Messrs. Crandall regard such experience as conclusive as to the fitness of their stock for California planting. They have, in addition to forest trees, a large variety of flowering shrubs and not a few fruit trees, chiefly the dwarf peach, which is selling well here.

Hutchinson's Nursery.

We called next at the nursery of Mr. Hutchinson, on Telegraph avenue, Oakland. We found Mr. Hutchinson busy in the management of his fine establishment. A tour throngh his greeen-houses will convince the beauty seeker that he has not sought in vain. Mr. Hutchinson makes a constant study of the introduction of new plants which will thrive in this State. He is a lover of the beautiful and his selections display it. We saw in his stock some splendid magnolias, Chile and Bidwell pines, arhor vitæs, Norfolk island pines, silver junipers, Irish yews and others of the best varieties of ornamental trees. These trees are worth a journey to see. He has on his place a variegated eucalyptus, which is the admiration of all visitors. It grew from seed and has a fine narrow horder on the leaves which gives it a striking appearance. He will hegin at once to grow trees from this one. Mr. Hutchinson's stock of flowers is noteworthy. He makes a specialty of fuchsias and flowering begonias, and excels in propagating them. His collection of the agave family is good, and is headed by a magnificent plant, which is the pride of his lawn. He has a Monterey cypress one year from the seed, which is two and one-half feet high. Mr. Hutchinson is pushing his buildings to cover his growing stock and has now 425 rnnning feet of green-houses.

We next made a call upon Mr. Kelsey, but he was not at home, and while on our way to Mr. Gill's the rain descended and the floods came and we went. In a future article we expect to note the points at the other establishments.

Improved Grinding Mills.

Geared mills with vertical spindles, says the inventor of the improved mills illustrated in the annexed engravings, are going out of use. Their toothed wheels or cogged gears are too rough in running and too expensive, while spindles in a vertical position do not run well, because they cannot he kept thoroughly oiled, and do not lie steadily against their hearings. Almost all the shafting used for driving machinery is now horizontal, with vertical pulleys, and therefore the driving pulleys of grinding mills should ohviously also be vertical, in order to be as convenient as possible to set up and put in operation.

Fig. 1

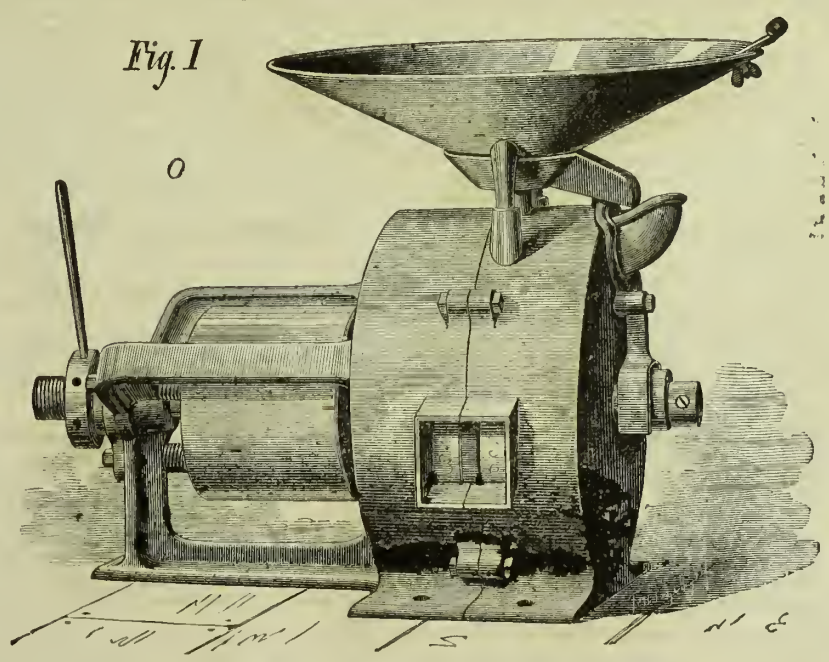
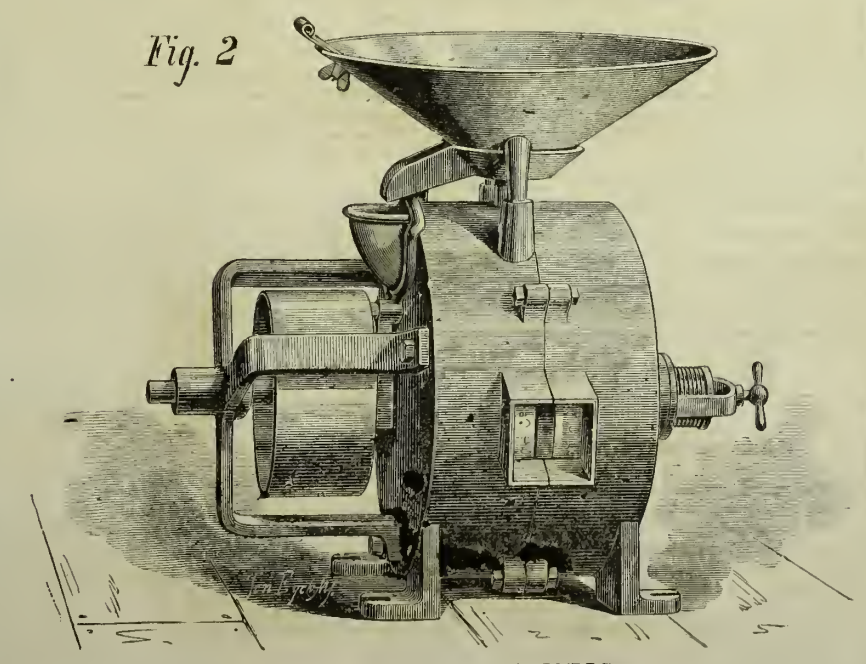


Fig. 2



HARRISON'S GRINDING MILLS.

In constructing the mills represented, the horizontal shaft was the inventor's main object; hnt subsequent experiment showed him other and superior advantages attaching to the torm. The machines became more qniet and light running, hut ground more rapidly, while their simplicity evidenced that the extensive repairs required in the use of gearing would be avoided. As now made, the mills are compact and convenient to be driven from portahle steam engines or horizontal shafting. The boxes for supporting the spindles are four times longer than are usually made, extending almost through the entire mill; and they carry the rnnner, which is solidly attached to the spindle, in a true plane with the face of the bedstone.

The small portable burrstone mills grind fifty bushels of good meal per hour, as regular work, from day to day, and have averaged as high as eighty bushels. This, the inventor claims, is due to the peculiar mode of mounting and dressing the stones, their facility for receiving grain at the eye, and the ease with which the meal passes out of the new discharge spouts. It is due also to the vertical position of the stones, the extraordinary velocity at which they run, and to such an adaptation of speed to grinding surface that, when the meal is once properly ground, it is thrown out and does not clog the furrows and consume the driving power. The inventor has submitted written certificates as to the above mentioned capabilities of his mill. He further states that over 9,000 machines were sold up to the beginning of the present year.

The engravings show two different types of mill, the principal points of difference being the styles and sizes of frames for supporting the spindles and working parts and the number of bearings required, the construction and mode of adjusting the spring bearings by means of which the pressure of the stones is automatically controlled. The mills are adapted to all varieties of grinding and for every substance, whether wet or dry, hard or tough, heavy or light, brittle or fihrous. Several sizes of this machine are made.

The strength and durability necessary to enable these mills to be run safely at a very high velocity, is secured hy the employment of the best materials, metal and stone only being employed in their construction. They are delivered to purchasers ready for use and in complete running order. For further information address the inventor and manufacturer, Mr. E. Harrison, New Haven, Conn.

Improvements on the Overland Railroad.

Mr. George A. Crofutt, lessee of the Park hotel, New York, and publisher of "Crofutt's Transcontinental Guide," is at present on a visit to California. He made a short stay at his old "stamping ground" in Colorado on the way here. He notices many improvements on the route, some of them very important. He thinks there are at least 10,000 people who contemplate going to the Black Hills in the summer. At Cheyenne numerous parties are outfitting for the trip and getting ready to start. At Laramie many improvements have been made, including a rolling mill which cost $250,000, and gives steady work to sixty men. They utilize all the old rails and old iron along the road. They are working over many old rails which are said to be better, as when rerolled there are less flaws in them and less splitting is experienced.

At Hilliard, near Bear River City, on the Union Pacific, the Hilliard lumher and fluming company, formed some time since, have built a V-flume twenty-eight miles long, intersecting Bear river and bringing down wood to supply upwards of seventy-five patent kilns for burning charcoal for the use of smelting works in Utah and mechanical uses along the line of the railroad. At Ogden, Brigham Young and the rest of the officials have given 130 acres of land close to the present depot for a union depot for the Union Pacific, Central Pacific, Utah Northern and Utah Central railroads. They propose next year to commence a large union depot and large hotel with all that is needed. The Central Pacific railroad company has bought the six miles of the Union Pacific west of Ogden, so this settles an old bone of contention and enables them to co-operate in giving the public improved accommodations in the near future.

Most of the towns on the Union and Central Pacific roads have greatly improved; Cheyenne, Laramie, Salt Lake and Elko are places of notahle improvement. The Utah Northern road will be completed within sixty days by laying twenty-five miles more track to a point where it will command the Idaho and Montana traffic which now goes to Corinne.

Mr. Crofutt will revise his Transcontinental Guide, which still seems very popular. He keeps up with the times, being a stirring man who knows how to keep a hotel and print a book. The Park hotel, corner of Beekman and Nassau streets, N. Y., now leased hy him, was established over twenty-five years ago; it is still one of the most popular hotels of its class in the city. It has heen thoroughly overhauled and renovated.

In the case of the London and San Francisco hank, limited, vs. Alex. Austin, tax collector, and the Anglo-California hank vs. Austin, Judge Sawyer decided that a tax upon money was legal, but as debts follow their owner—and in this case the deht helongs in London—it therefore could not he asssessed. In short, foreign money could not be assessed.

The investigation into the *Pacific* disaster hy the inspectors of hulls and boilers puts the blame of the accident on the officers of the *Orpheus*. The public, however, put little faith in these secret investigations.

Hamill, the noted oarsman, is dead.

CORRESPONDENCE.

Notes of Travel.

MESSRS. EDITORS:—The dear old "RURAL," first number for 1876, is at hand, and after an honr over its pleasant columns and with a feeling of gratification at its improved appearance, I sit down to give you an item of my notes of hurried travel:

Dr. Strentzel's Fruit Farm.

I had telegraphed the doctor of my expected visit, and he had sent a carriage to meet me at the wharf, but with my usual skill in such matters I missed meeting it, and so I determined to travel the two and a half miles on foot. Not being acquainted with the road, I asked a mutual acquaintance to direct me to the doctor's place. He said, "Go ont by the schoolhouse; keep plainest road; you'll know the place when yon come to it." I followed his directions, and I knew the place "from afar off," as soon as I came in sight of it. Any of our fraternity of Grangers or fruit growers who know the doctor, (and who does not?) would readily have recognized it. His enthusiasm as a fruit cultnrist had left its impress on everything about the farm. It is surrounded by a magnificent hedge of Osage orange. It occnpies a narrow valley with lofty, brilliantly green hills on either aide. I climbed one of these hills and looked over the hedge at the broad inclosure, set with the choicest of fruit trees and vines, all showing evidence of the finest of care and culture; bnt my view was too distant. I hastened on to the honse for a closer inspection of the premises. After a warm greeting from the doctor and his very pleasant family, we took a walk over the farm, and he has—no, I'm not going to tell it in that way. If the reader expects me to tell how many hundreds or thousands of vines or trees he has of any or all kinds, he is mistaken. We didn't look at them in that way. There are lots of the second crop of grapes still on the vine—bright, lnscious, plump fellows, such as we seldom see in market, and never at this time of year. I ate of forty-five different kinds. I remember distinctly that I didn't think the last kind as good as the first; and finally, that I didn't like grapes very well anyway. I wish I had some of them here now, just to see if I'm still of the same opinion.

Oranges and Lemons.

Here I saw many thousands of young orange trees, raised last year from the seed of decayed fruit purchased for that purpose. Also, about his house are quite a number of large trees, both orange and lemon, in full bearing. They have been raised from the seed. They seem to be thrifty, hardy and very productive.

Grange and Text Books.

Dr. Strentzel, Bro. Renfro and myself were appointed by the last State Grange as Committee on Education. I had written to Bro. Renfro of our intended meeting, but for some cause he failed to put in an appearance. The "battle of the books" had intruded itself upon our attention as citizens and laborers in the cause of education; bnt as members of that committee, something more than thought and attention were required. Action was demanded, or else resign and allow others to be appointed that would do something. We accordingly devoted a few hours to getting up a circular, which will be given to the readers of the RURAL next week, and in the meantime it will be generally circulated throughout the Grangea.

Feasting and Music.

This sketch would be incomplete without mentioning how we sampled some of the doctor's very excellent wine, also almonds, walnnts, oranges, lemons, and other "home productions" too nnmerous to mention, besides helping to dispose of a fat turkey prepared in a manner that evinced that there was a most excellent cook somewhere about the place. Then we went into the parlor and joined in with the family in singing some of our Grange songs, as an accompaniment to Miss Strentzel's skillful playing on her Steinway piano. We enjoyed it intensely, and fully exercised what our irreverent neighbor Smith calls our forty-mule power bass.

After a few hours' sleep the doctor provided us with conveyance to Martinez, that we might catch the Vallejo morning train; but the deep mud made it impossible for us to reach the railroad in time, so we had a few hours leisure before the arrival of the steamer. This we devoted to a very pleasant call on the Fish Bros., who have

A Beautiful Home

In the northern part of town. They are extensive farmers, bnt here, at their residence, they cultivate only a few acres. But on that they raise a supply of all kinds of fruit, besides having raised and cured a quantity of tobacco during the past summer. A beautiful Chinese lemon was growing beside the fence, weighted and loaded down with its large showy fruit. I asked Dr. Fish if no better lemons could be grown there. "O, yes," said he, and took me away into the orchard, where he had a fine Sicily lemon tree with several dozen lemons npon it. "Bnt," said he, "that tree with big fruit, npon the hill, is far more admired than this is, though this is much the better." As I contrasted them, I couldn't help thinking how natural 'tis to admire the gaudy display of "the big tree on the hill;" to pass by the modest luster of pure gold and be dazzled by the glitter of mica.

Pine-Apples.

Here we saw a lot of pine-apples growing in a temporary hot-bed. They had been started from the tuft of leaves cut from the crown of the fruit. We have often raised them in that way. Your correspondent, W. M. O., has only to get a few pine-apples and carefully cut off the crown, stem and leaves, also the stems growing from the base of the fruit, set them in a dish of moist sand, keep in a warm place, keep damp and warm till spring, then transplant to a spot of well tilled, rich soil, and give them plenty of water, and they will grow and increase by suckers, so as to produce a supply of the plants, if his locality is at all suited to their growth.

Dry Creek, Fresno Co. W. A. SANDERS.

Items From Santa Clara.

MESSRS. EDITORS:—This being proverbially the dullest town in California, items are scarce; as a matter of course, especially such as would be of interest to the readers of the PRESS.

It commenced raining here last Sunday afternoon and has continued with but slight intermissions ever since, with every indication of its continuing two or three days more. The farmers of course are all jubilant over the prospects for the next year, and all agree that this season opens more auspiciously than any within their recollection. The rainfall in this county up to date is about 11 inches, although at the Gilroy end nearly twice as much has fallen. Nearly all the crops on the high lands are in and doing finely, though on the low lands, toward Alviso and Milpitas, it is still too wet to plow.

Our Grange celebrated New Year's day by installing its officers for the ensuing term and afterwards adjourning to the usual monthly feast. All present seemed to have a glorious time, and to enjoy themselves as only Grangers can.

Appearances would seem to indicate that this town will shortly awake from the lethargy which has hung over it so long. The price of real estate is slowly but surely advancing, in spite of the dull times of the past few months.

The Alviso and Santa Clara railroad is an accomplished fact—the necessary surveying all finished and the right of way secured for the entire distance. Two hundred men commenced grading from both ends yesterday, and it is the intention of the directors to have the road in running order before the fruit season commences. The present terminus of the road will be at Santa Clara, where the workshops, etc., will be located, but it is the intention of the projectors to continue the road to Los Gatos, and from thence to Santa Cruz, so as to secure the immense lumber business of that county.

New enterprises are springing up and more talked of, and everything seems to promise that this Centennial year will open up a new and prosperous era for Santa Clara. * * *

Santa Clara, January 4th, 1875.

Poland Chinas Wanted.

MESSRS. EDITORS:—From necessity I have been driven out of the mule raising business, as my two jacks imported from Kentucky are defunct; I am now becoming somewhat enthusiastic after the hog. Having noticed in the PRESS of December 18th a flattering account of the Poland China hog, where can he be had in our State, and what would be the probable price, six months old, per pair?

Very respectfully, F. W. GIBSON.

El Monte, Los Angeles Co., Cal.

[We are unable to tell our correspondent where he can obtain his Poland China hogs, as we have now no advertiser of the breed. Perhaps some breeder will write to Mr. Gibson at the address above. We would again suggest the wisdom of breeders advertising their stock in the RURAL. There is no better way of finding customers.—EDS. PRESS.]

THE VINEYARD.

A Napa Grower's Propositions.

MESSRS. EDITORS:—Grapes and wine have become important products of our country; a great deal of capital is invested in the business, and no little talent and skill is being devoted to bring the growing of the grapes and the manufacture of wine up to the highest standard. It is useless to tell any one hereabouts, however, that our growers are not in that prosperous condition their labors and investments entitle them to be; which lack of prosperity is due to the depressed condition of the wine trade, and other reasons not necessary to enumerate just now. In view of this depression in our business I think something ought to be done—I think we should be up and doing, discussing and acting towards some point which will give us relief. And it is for this reason that I have sent this communication—sent it with the hope of arousing the grape growers to action. Something must be done *now* if we propose to save our crops next season from waste and destruction, and that something I propose to discuss, hoping to bring out others of more ability and more experience. The remedy I propose is this:

First. I propose that the grape growers of Napa county form a grape-growers' association, every grape-grower in the county becoming a member.

I propose second, that the members from three distinct joint stock companies, for the purpose of building three large wineries, to be situated in convenient and central localities.

Third, stock in these companies to be taken by all grape-growers in proportion to the number of acres each has in vineyard; a certain part to be paid down in cash, in order to build and prepare for the vintage, and the remainder to be paid for in grapes.

I would locate the three cellars, or wineries at Napa City, Yountville and St. Helena. Each cellar should have its own trustees and superintendent, but I would employ jointly for the three establishments a wine-maker of approved skill, who would have the general management of the manipulation of all the wines and brandies, directing and overlooking each and every thing likely to effect the quality and soundness of the products. By adopting this precaution we would soon be able to offer to the world products of the best quality and of uniform grade.

There is much more to be said on the subject, in regard to agencies, shipping, cooperage, etc., when I defer for a future article. Meantime let every grower ponder well the situation; let him consider the chances of losing half or more of his valuable crop from lack of means and facilities to handle and manufacture it, and then say whether it is not high time to be moving. GRAPE GROWER.

Yonntville, Jan. 4th.

BUNCH OF SYRIAN GRAPES.—A correspondent of the *Journal of Horticulture* describes a big bunch of grapes, grown in a hot house in Scotland, weighing over twenty-five pounds. "The vine that carried the bunch of 25 lbs. 15 oz., when weighed in Edinburgh, but which Mr. Dickson states weighed 26 lbs. 8 oz. when cut, has only been planted four years. It was grown from an eye taken from an old vine which had produced very large bunches. The second year it was planted a bunch was cut from it that weighed 14 lbs., the third year one that weighed 16 lbs. 6 oz., and this year the same as given above." This variety is supposed to be the same as that which Joshua and his companion brought to the Israelitish camp after their visit to the land of Canaan.

SHEEP AND WOOL.

The California Clip of 1875.

We print below, for the information of our readers, a review of the wool trade and production for the year prepared by E. Grisar & Co.:

Wool Production.

January, 344 bags; February, 359; March, 2,197; April, 32,847; May, 27,798; June, 10,313; July, 5,615; August, 4,966; September. 15,010; October, 22,213; November, 10,571; December, 1,819. Total, 134,042 bags, of which there was spring wool, 78,561 bags, weighing 21,997,080 pounds; spring wool shipped direct from the interior, 749,650 pounds; total spring production, 22,746,730 pounds. There was fall wool received, 55,481 bags, weighing 18,863,540 pounds; fall wool shipped direct from the interior 361,953 pounds; total fleece wool, 41,972,223 pounds; pulled wool shipped direct from San Francisco, 1,560,000 pounds; total production of California 43,532,223 pounds; on hand December 31, 1874, about 6,458,000 pounds; received from Oregon, 8,006 bags, 1,850,000 pounds; foreign wool received, 999 bales, 375,000 pounds. Grand total 52,215,223 pounds.

Exports.

Domestic, foreign, pulled and scoured, per rail, inclusive of shipments from the interior, 40,493,248 pounds; per steamer, inclusive of shipments from the coast, 4,071,695 pounds; per sail, 3,618,074 pounds. Total shipments, 48,183,017 pounds. Value of exports, $8,450,000. On hand December 31, 1875, 1,400 bags, 420,000 pounds.

The difference between receipts and exports has been taken by local mills. The weights of receipts and exports are gross. The usual tare of bags received is about three pounds each; on pressed bales shipped, 14 to 16 pounds each.

Good Quality.

Fully two-thirds of the wool graded during the past year is A1. The balance is A2 and B. This proportion has been unchanged for the past six years. The wool market during 1875 has been free from any great fluctuation or excitement. Stocks on hand are the smallest for several years, as the demand has been sufficiently large to take not only the increased amount ahorn, but also the large supply of the previous clip on hand at the beginning of the season. Purchasers for account of Eastern buyers have taken the largest part of the wools, and the amount so taken increases each year.

The Spring Clip,

Excepting Southern wools, was in good condition, but the staple was below the average, owing to extensive shearing in the fall of 1874. Many parcels from the extreme North were less desirable than formerly on this account, their length of staple causing them to be in good demand. Southern wools were inferior, as they were short stapled, in poor condition, and contained more defects than 1874. Fall wools began to arrive in August, and the whole clip was received earlier than usual. Low prices and the financial disturbances at the time when wools usually come forward most freely, deterred many growers from shearing.

The Amount of the Clip

Has, however, exceeded estimates made early in the season, and shows that the loss of sheep in consequence of poor feed and from being driven out of the country, was over-estimated. The condition and staple of the clip were above the average of the previous year. Wools of good staple and medium grade have been in best demand, and have brought comparatively higher prices. The loss in scouring is less, and they can be used more extensively than short-stapled fine blooded wools. The shortness of staple in the latter limits their use to a few manufacturers, and growers must accept low prices for them because the demand is small.

Suggestions.

California cannot compete with Australia or South America in raising fine wool, as the climate is unsuitable. Manufacturers use California wools because they cost less clean than the best foreign or domestic, and when the shrinkage is heavy the price for the wool in the grease must be low because it cannot be used in making high-priced goods. The supply of wool of medium grade and long staple is always less than the demand. By raising wool with these characteristics growers would obtain good prices for their spring and fall clip, as both would be of good staple and condition. There is a difference of twelve to fifteen per cent. in favor of medium, and against fine wools from the same section, and the former are preferred at the increased price. Better wools would be produced if growers would shear early in the fall and give as much time as possible for the growth of the spring clip. The large amount now produced in California renders it expedient for growers to raise such wool as buyers want. There is always too much fine heavy stock, and the whole clip suffers on this account. The wools have generally arrived in a marketable condition, and the cases of fraudulent packing have been unusually few. Some growers have tied their tags and locks like fleeces, instead of putting them in separate packages. Such action tends to prejudice buyers against them as the preference is always given to wools carefully handled. The clip of Oregon has been about the same as in former years, both in amount and character.

Product of California Wool.

	Pounds.		Pounds.
1854	175,000	1866	8,532,047
1855	300,000	1867	10,288,600
1856	600,000	1868	14,232,657
1857	1,100,000	1869	15,413,970
1858	1,428,331	1870	20,672,660
1859	2,378,250	871	22,187,188
1860	3,055,325	1872	24,256,468
1861	3,721 998	1873	32,155,169
1862	5,990,300	1874	39,356,781
1863	6,268,480	1875	43,532,223
1864	7,923,670		
1865	8,949,931	Total	271,918,668

THE DAIRY.

Temperature and Cream Raising.

One of the most discussed questions in dairying for butter is, at what depth and temperature is it advisable to set milk to secure all the cream? There have been numerous opinions derived from diverse experience. We find in the New York *Tribune* an article from Prof. L. B. Arnold, secretary of the American dairymen's association, which states very clearly the principles which govern the rising of cream. The propositions set forth are of peculiar value to California butter makers, for here it is not as easy to secure exact temperatures as at the East where ice-houses are abundant. Prof. Arnold shows how the setting may be made to act perfectly in different degrees of heat. He writes:

There are a few general facts relating to setting milk and raising cream that have an application in deep and shallow setting, which it may not be out of place to state briefly in this connection. 1. Other conditions being equal, it must be evident that it takes less time for cream to rise through a thin stratum of milk than a thick one—less time to rise two inches than twelve. 2. As fat, of which cream is chiefly composed, swells more with heat and shrinks more with cold than does water, of which milk is chiefly composed, it is evident if other circumstances are alike, that cream will rise faster in a high temperature than a low one, since the fat in cream, by swelling more with heat, will be relatively lighter, when both milk and cream are warm, than when both are cold, the temperature in both cases being supposed to be neither rising nor falling, but standing without change. 3. Water is a better conductor of heat than fat, and hence, when the temperature of milk varies either up or down, the water in the milk feels the effect of heat or cold a little sooner than the fat in the cream does, and therefore the cream is always a little behind the water in swelling with heat and shrinking with cold, diminishing the difference between the specific gravity of the milk and cream when the temperature is rising, and increasing it when the temperature is falling. The difference between the specific gravities of milk and cream, when both have the same temperature, is but little. It is barely enough to give a sluggish motion to the cream.

Where the difference in gravities is so very small, a slight increase or decrease is sensitively felt, and the careful observer will have no difficulty in noting the retarded ascent of cream in a rising temperature, and its hurried ascent in a falling one. The fact of a hurried rising of cream in a falling temperature of milk has great significance in butter dairying, and though always open for recognition in every butter making establishment, whether corporate or private, it has failed of being recognized both by dairymen and dairy writers, perhaps because they have had their minds intently bent on some ideal temperature or depth as the *sine qua non*. A little explanation may help to show how these general statements are connected with deep and shallow setting.

If two vessels of milk at 80° and of the same depth and quality are set in a room which has an even temperature of 50°, and one is cooled, before setting, to 50°, and the other is not, the vessel which was cooled will not throw up cream so rapidly nor so perfectly as the one which was not cooled before setting, because it received no benefit from an increased difference between the specific gravities of the milk and cream by reason of a falling temperature. If after the cooled milk had stood at 50° till the cream ceases to rise, it is warmed and set again at 50°, or if without warming it is set in a room colder than 50°, in either case more cream will rise by reason of lowering the temperature. The same results would follow, but in a feebler degree, if the milk which was not cooled before setting was treated in the same way, provided it was set shallow, say two inches deep in the first place. Milk set shallow in a cold room will not throw up its cream so perfectly as when set in a warm room, because when shallow it drops to the standard of the room before the cream is all up, and now, having ceased to derive any benefit from a depression of temperature, it will not, in a cold room, throw up its cream with a sufficient force to bring the heavier particles to the surface. Bearing in mind that, up to a certain point, the warmer milk is kept the sooner it spoils, 65° is a high temperature to set milk in; yet milk set two inches deep at 65° will throw up its cream quickly and perfectly, when it would not do so set at 50°, because though the milk may very soon fall to the standard of the room and cease to derive any advantage from a falling temperature, yet as the cream rises more readily in a high temperature than in a low one, it will, at such a degree, and such a depth, come up fast enough to rise perfectly before souring begins. If we should set warm milk in vessels six inches deep, in a room at 65°, it would take so much longer for the cream to come up through that increased depth that the milk would spoil before it all could get up. But let the deep vessel be placed in a cold room, say at 50°, and the result will be altogether different. Unlike the shallow milk in the cool room, the increased depth and bulk so much prolongs the time of cooling that the cream will all, or very nearly all, be up before the milk has dropped to the standard of the room.

By having the foregoing general statements well grounded in the mind, and keeping in distinct remembrance the relations between temperature and depth, and especially the important effect of a falling temperature upon the ascent of cream, one anxious to learn can, with a little experience, be successful in raising cream perfectly at any temperature from 40° to 70°. It will become clear that though certain temperatures are desirable, they are not absolutely necessary to obtaining all the cream. There is a great deal of talk about an even temperature for raising cream, and so far as the dairy room is concerned, it is desirable that it should be uniform, because it gives regularity to all the operations of the dairy, and aids in securing uniform results. But so far as the single fact of raising the cream is concerned it is better that the milk should not be kept at any one particular degree, but that it should be kept varying downward as long as possible.

Agriculture in the Public Schools.

[By Professor ISAAC KINLEY—Concluded.]

The True Book Farming.

There was a time, and not long ago, when *book* farming, or scientific farming, was the standing jest of the farmers themselves. It was looked upon as a species of pedantry, set up in opposition to experience. And it must be confessed that many were the men, with heads chock full of theories and visions of the poetry of country life, whose great promises and great failures gave point to the general joke. If, indeed, I were compelled to choose between theory without experience, and experience without theory, I should, unhesitatingly, take the latter, confidently expecting that routine with industry and strong muscles would win the race. For the farmer needs educated muscles as well as educated mind, and habits of industry as well as habits of thought. No one should be foolish enough to suppose that theory of itself can produce great crops. It is theory applied—the skillful hand guided by a wise head, that must accomplish results.

The science of agriculture—I use this phrase for convenience—is not one, but many sciences, or such parts of them as relate to and explain the practical operations on the farm. Agriculture is, by common consent, one of the oldest of human pursuits; and it would be paying a poor compliment to the tillers of the soil, to deny that anything more valuable than routine has been deduced from all the experience of all the ages.

Value of Agricultural Science.

The value of agricultural science has been recognized by the congress of the United States, in establishing an agricultural bureau, and in the donation to each State of a portion of the public lands for the purpose of building up the industrial colleges in which agriculture is to occupy a conspicuous place. It is further supported by the fact that several colleges have established departments of agriculture. But it will be generally and sufficiently recognized only when the common schools of the State admit agricultural students, and teach agricultural science as a necessary part of their education. When this is done, we shall see other industries alongside it having equal educational advantages.

Now that congress has made a valuable donation for the purpose of having agriculture taught, its utility, as a collegiate study, is beginning to be admitted; though, as a study, in the schools of lower grade, it is ridiculed as impractical. You may teach it in the colleges but not in the township or district schools. A little reflection will suffice to show the absurdity of this proposition. Not more than one farmer's son in a thousand has the advantage of a collegiate course of study: and of those who do have, the number is relatively small of those who return to the farm. I agree, however, that the introduction of a course of agricultural study will greatly increase the number of farmers' boys who enter college, as well as the relative proportion of those who, after having graduated, will return to farming pursuits. But after making a liberal allowance for this, it must still always be true, that only a very small per cent. of the whole people can ever have the benefits of a collegiate education. Whatever of agricultural science is taught to the great mass of the people must, therefore, be taught in the common schools. A few farmers of affluence will be able to send their sons to college; a few young men of great energy will work their way through the collegiate course; but the large majority must be educated only in the public schools, and unless the industrial sciences can be taught in these the great mass of the people must forego all school instruction in this subject.

The whole people should be educated in the knowledge and business of practical life. By denying the introduction of industrial science into the public schools, the very persons must always be deprived of it who most need its advantages. In this country it is not the policy to segregate the land into large estates, constituting the rural population into landlords and tenants. The policy is rather to subdivide into small estates, the farmer tilling his own soil. His boys take the place of hired help, and cannot well be spared from home. The public schools are, as a rule, their only opportunities, and we should make these opportunities equal to their wants. To say that agriculture shall be taught, and yet not taught in those schools, is to deny the teaching of it where alone it can be greatly beneficial.

In order that agricultural education be valuable to the people at all it must be taught in schools accessible to the people. What mockery to provide the benefits of agricultural instruction, and yet have this instruction given only in institutions which no considerable portion of the people can by any possibility attend. It should be taught in the colleges, as a matter of course; but let the colleges be in this, as in other subjects, places to which students may graduate from schools of lower grade.

But *cui bono*, says the practical man of business, suppose every reasonable objection be answered and every farmer's son thoroughly educated in agricultural science, what good will it all do? I concede that the question of utility properly stands at the threshold of every enterprise. What use? On the proper answer to this question will depend the final success of the movement. We live in an utilitarian age. We are a utilitarian people. And in the widest sense of this much abused word I confess to the title of utilitarian. Utility is the motive power that gives force to enterprise and overcomes the inertia of popular indifference. By it let us test the present movement, and let its fate be decided by the answer to the question, "For what good?"

The Results.

The first and most manifest benefit arising from agricultural education will be the general increase of the products of the farm. As already stated, the farmer applies practically important principles of science. That in order to apply these correctly it is necessary to understand them, is a proposition which needs no argument. When the farmer plows he changes the mechanical and chemical condition of the soil. When he plants and cultivates he is making experiments in organic chemistry. When he feeds his live stock he is applying principles of physiology and hygiene. And finally, every kind of farm work requires, in order that it be done at the right time and in the proper manner, practical knowledge as well as practical skill. Now, if the sciences which give information on these subjects be taught in the public schools, and be made the text for school books—the best methods with the reasons therefor explained—it is plain that the fund of practical knowledge would be increased, and the judgment correspondingly improved.

Agriculture in the school would cultivate early habits of reflection as applied to work, and in after life cause knowledge and judgment to take the place of routine.

If what I have said be true we should expect to find, as is the fact, that in those countries where agricultural science is better understood and better applied, a corresponding increase in the products of the earth. In England, Holland and most of the German States, the average products of the soil exceed those of the United States, though our soils are newer and naturally more fertile. Industry guided by science has converted the rocky fields of Eastern Massachusetts into gardens, and every year witnesses harvests that are seldom surpassed in the more fertile fields of the newer States.

In the different portions of the Union the examples have been numerous of skillful and scientific farmers, who, purchasing waste and worn out fields, have by underdraining, deep plowing, subsoiling and a judicious application of fertilizers, made their barren soils the equal of the best.

Great crops are not accidents. The laws of nature are uniform. In agriculture, as in other things, like causes must produce like effects. Wherever exist the necessary conditions great crops must be produced. To explain what are these conditions; how, at the least cost, to preserve them when present, or to produce them when absent, is the legitimate work of agricultural instruction. Let us suppose all the more important knowledge on this subject arranged in convenient and systematic form and published in a series of school books, numbering one, two, three, etc., from easy primary works to those more thoroughly scientific, and that these be made an optional part of the school course. What grand results might we not reasonably expect. Within the next generation agriculture would assume a new form; its processes would in every way be improved, and in some cases a hundred per cent. be added to the products of the soil. The ditch, underdrain and subsoil plow would carry from our wet lands the excess of moisture now compelled to evaporate into the atmosphere, generating agues and all manner of pestilential fevers; the houses, barns, orchards and fences would take on neatness, order and beauty, and our glorious country become the Arcadia of the world.

The simple operation of ditching and underdraining and subsoiling, so beneficial in many parts of the United States, is a practical application of scientific principles. Now is it not reasonable that the farmer who understands these principles will be more likely to apply them properly than one who does not?

Knowing Causes.

It is said that it is enough to know the fact. Why trouble ourselves about the sciences? I answer that we are a reasoning, skeptical, philosophical people, and it is very difficult to convince us of facts without our first knowing the reason. But give us a theory—even a false one, if we are thoroughly convinced of its truth—and we will traverse the polar regions in search of Symme's hole, lavish our money without stint on a machine that is to be a perpetual motion, or quietly wait the new advent according to the predictions of Miller. Give us a reason, whether in sciences, politics, or religion, and we follow it to its legitimate results.

Educational institutions are for the young. The youth should have opportunities to prepare for the life battles in which they are soon to engage. Let therefore, the farmer's sons, and daughters, too, be thoroughly educated in the principles of scientific agriculture. Let theory and practice go hand in hand. While the muscles are being trained in the habit and skill of farm work, let the mind be instructed in such knowledge as will make this skill the more valuable.

The year that witnesses the advent of agriculture as a study in the public schools, will mark an era in human improvement, and the man then of middle age will live to see accruing advantages beyond all calculation. In nothing else, perhaps, will this improvement be so marked as in the use of fertilizers. The farmer who knows not what his soil contains, nor what the plant feeds on, is not so likely to supply to an impoverished soil precisely the plant-food it needs, as one better acquainted with the constituents of both soil and plant, and who understands the best and most economical means of supplying deficiencies. One of the greatest drawbacks to agricultural improvement is the constant withdrawal of educated young men from the farm. Regarding agriculture as mere routine, ambitious young men tire of the exclusively muscle work, and seek a wider field of intellectual pursuit. These young men will learn that farming is an intellectual vocation, and that the fields that grow their crops are also fields of research. Seeing that intelligent labor produces double the yield of mere routine they will not be so readily tempted away from this the grandest of human pursuits.

Culture Advocated.

I do not mean that the agricultural student should give his attention to this subject alone, and to the exclusion of all other needed information; I would not shut him out from other sources of knowledge or from any means of refining and humanizing culture. Every child that comes into the world has, by reason of its humanity, an inalienable right to the growth of its powers, and should have, not only during minority, but through life, the best opportunities for mental and moral culture.

With the improvement in agriculture will come a corresponding improvement in the other industries and of society itself. Endless indeed are the collateral advantages that would result. Among these the suppression of demagogism and the silencing of corrupt politicians will not be the least. The general increase of intelligence that must result will make the people so jaunty a nag as to render the riding of it a dangerous experiment.

The great resulting moral advantages must not be forgotten. It has been beautifully said that "The laws of nature are the elder word of God." The student of agricultural science is the student of nature, and whether studying or applying this "elder word," he will feel that he is ever in the presence of the invisible but omnipotent God, to whom study and labor are at once a homage and a prayer. Agriculture in the public schools will produce high culture on the farms, and what is infinitely greater and better, it will produce high culture in the minds and hearts of the sons and daughters of the people.

California Swamp Lands.

Their Productions and Value when Reclaimed.

Within the past few years the swamp and overflowed lands of the State have received considerable attention at home, but as yet but a faint idea is formed abroad of the wonderful wealth concealed beneath the tule formation along several of the larger lakes and river delta. It is much a matter of wonder to-day that all of these lands are not under cultivation as it is that the rich lands all over the State were allowed to lie idle and unoccupied in early days. The reasons are principally the same in both instances—men have sought to find a shorter and less laborious road to wealth through the gold and silver mines, and have scorned to embark in an enterprise that can but prove profitable.

To give a full description of the swamp lands of the State would require a volume; but we believe a short description of the quantity, quality, location and condition of this valuable portion of our State will be of general interest at home and abroad. Three million acres is the amount of swamp land put down by the Surveyor-General, and the estimate is not far out of the way. Let us figure a little, taking thirty bushels of wheat to the acre, which is not a high estimate, as we shall prove directly. This would give a total product of 90,000,000 bushels of wheat for these lands alone. Allowing that they were all reclaimed and settled up by small farmers, at, say the rate of two hundred acres to each family, would give us an additional population of 15,000 families, or about 60,000 souls. Allowing one-third of this land for orchards, pastures, gardens, roads, villages and other purposes, it would still leave an annual product of 60,000,000 bushels of wheat from the remaining two-thirds, which would be just 34,000,000 more than the total product of wheat and barley combined for the year 1866, and 30,000,000 bushels more than the combined product of wheat and barley in 1872. Of the land now cultivated in the State, more than two-thirds is devoted to wheat and barley, or about the same proportion as allotted to the swamp lands. In other words, the swamp lands of the State are fully equal in extent and area to the entire cultivated area of the State, and if reclaimed, will yield double as much.

The tule lands of the State are situated principally in the Sacramento valley, commencing above Red Bluff, and extending down the Sacramento river on both sides alternately, to where it unites with the San Joaquin; also, bordering on several of the lakes, Tulare and Kern. The freshwater lands are fertile the moment they are reclaimed, there being no salts or alkalies to interfere. The qualities of these lands vary, as a matter of course, those higher up the river having a more compact soil than those near the delta. All the land, however, is composed of about the same material—decayed tule and the sediment deposited by the streams at high water. This sediment is brought from the mountains and gulches, being washed off by the rains and melting snows, and also by means of hydraulic streams used for mining purposes. The sediment alone is almost equal to manure as a fertilizer, and when the clayish character of these deposits is eradicated, and the ground softened and mellowed by the strata of decayed tule, it forms a soil at once rich and mellow, which cannot be surpassed by any known artificial or natural ground.

The first crops planted on these reclaimed lands was wheat. The tules were burned off in the fall, and the wheat sown, then hands of sheep driven over it until the seed was thoroughly covered. On the islands now under cultivation the horses are shod with a broad, flat shoe, which keeps them from sinking down, and the wagon wheels have a rim from eight inches to a foot wide, for the same purpose.

In the fore part of this chapter we based our estimate on thirty bushels to the acre. Now for the facts. Last year we visited all the reclaimed islands, and from personal knowledge know that the average yield of wheat on these lands was more than sixty bushels, while many fields turned out as high as ninety, and that of the finest quality. What will people lately from the East say, where the greatest item of expense is for manure, without the application of which the land would not earn its salt, where the hills of corn are covered with plaster, and where thirty bushels is a good yield—when we state that we have seen a crop of grain cut off, and the ground immediately plowed up and planted to beans, which would yield a crop the same year of fifteen to twenty centals to the acre, worth at least forty dollars. We have seen the ground in young orchards on these islands rent to Chinamen for fifteen to twenty dollars an acre, and it paid them well, too. We have seen four crops of alfalfa cut in a single year, aggregating twelve tons of good hay, worth at the landing of the boat ten dollars a ton, which would be $120, and this less $2 a ton for baling and delivering, would leave $96 an acre clear.—*Sacramento Record-Union.*

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are at No. 6 Liedesdorff street, in rear of the Grangers' Bank of California, No. 415 California street San Francisco.

The Grangers' Business Association of California is at No. 351 Market St.

Grangers' Business Association of California.

Notice of Annual Meeting of Stockholders.

The Annual Meeting of the Stockholders of the Grangers' Business Association of California, for the election of Directors, will be held at the office of the corporation, in the building at the north-east corner of California and Davis streets, in the city and county of San Francisco, on Wednesday, the sixteenth day of February, 1876, at the hour of ten o'clock in the forenoon of that day.

T. J. BROOKE, Vice-President. WILLIAM VANDERBILT, Secretary.

New Constitution and By-Laws.

We have the amended form of the Constitution and By-Laws and Rules of Order of the State Grange: the Declarstion of Purposes, Constitution and By-Laws of the National Grange, and blank form of Subordinate Grange. Constitution and By-Laws now printed in one pamphlet. Granges supplied at five cents per copy, post paid, from the RURAL PRESS office, San Francisco.

GRANGE DIRECTORY.—We have concluded to postpone the printing of our Grange Directory until the first week in February, in order that it may embrace the records of elections in the several Granges which are now coming in each week. At that time we shall give a full list of the officers of the State Grange, Deputies names of Councils, Subordinate Granges, Masters and Secretaries.

ELECTION RETURNS.—Secretaries will please send us, as early as possible, the result of their election of officers. Write plainly (on one side only) in the following form:—"Napa Grange, No. 1. Naps City. Election, Dec. 4.—J. B. Saul, M.; J. W. Ward, Jr., O.; Harry Haskell, Sec.;" and so on, giving a full list and also the names of trustees and business agent. We should like to receive further correspondence from Secretaries

The New Grange Headquarters.

We noticed some time since that the Grange Business Association, the Grangers' Bank and Farmers' Loan Association had purchased the large three-story brick fire-proof building at the corner of California and Davis streets.

The parties took possession of the premises on the 1st inst., and extensive alterations are now in progress on the first floor to accommodate the various departments which are to occupy that portion of the premises.

The Grangers' Bank will occupy a large corner room fronting upon both streets, which will be appropriately fitted up for such a business. The Insurance Company will occupy rooms fronting on California street, and the Grangers' Business Association a room fronting on Davis street, and running back the entire depth of the building, which fronts forty-five feet ten inches on California street and ninety-one feet eight inches on Davis street. The rooms will be ready for occupation about the 1st of February. Brother Adams, the new Secretary of the State Grange, has already taken possession of his quarters, which will be found in the corner room on the third floor—a sightly and sunny location. The entrance to all the upper floors is from California street by a wide and easy stairway. The balance of the building is already occupied by first-class tenants.

We have in preparation an illustration of the building, as it will appear when the new occupants take possession of the lower floor, showing signs, etc., which will probably appear the last week in the present month, when a more minute description of the building will be given in these columns.

PROCEEDINGS OF THE NATIONAL GRANGE.—The official proceedings of the last session of the National Grange has been published in an octavo volume of 208 pages, for a copy of which we are indebted to Secretary Kelley. By instruction of the Grange, a copy will be forwarded to the Master of every Subordinate Grange, and thus made accessible to every member of the Order throughout the Union. The document will be found valuable for reference, and every active member, especially, of every Subordinate Grange, should take the earliest opportunity to make himself familiar with its contents. All matters of general interest to which it refers should be laid before the respective Granges by Masters, at the earliest convenient opportunity, as no doubt they will be. Copies for distribution in California are probably now in transit.

ANNIVERSARY CELEBRATIONS.—We have received quite a number of communications in relation to anniversary celebrations, harvest feasts and installations, for which we have no room this week. All thus far on hand will find a place in our columns next week. Among others we notice that Cloverdale Grange had a pleasant occasion, at which Master C. H. Cooley delivered an address, which he was requested to send us for publication. We suspect his modesty, and not any delinquency in the postoffice, is the cause of the non-arrival.

Meeting of the Executive Committee.

The Executive Committee of the State Grange met at No. 6 Leidesdorff street on Tuesday last, and continued in session for three days for the transaction of such business as might come before them.

Among other matters presented, the report of the experts appointed to examine the accounts of late Secretary Baxter and Treasurers Fisher and Carrington was received, considered and placed on file. The report will be published in full in connection with the proceedings of the late meeting of the State Grange, which will soon be issued in pamphlet form.

The Committee also proposed certain amendments to the Constitution and By-Laws of Subordinate Granges, which will be found in another column.

Bro. Manlove, of Sacramento, presented the following resolution, which was adopted and ordered published in the RURAL PRESS:

Resolved, That the attention of Subordinate Granges be called to the circular sent them for signature, and signed by J. Strentzel and W. A. Sanders, committee of the State Grange on Education, which circular contains a series of resolutions regarding a change of text books in the common schools. Particular attention is called to the first and seventh articles as being in opposition to the memorial of the California State Grange and Mechanics' Deliberative Assembly in relation to the State University, which memorial was approved by the late State Grange.

If we rightly understand the purport of the above resolution, it is the desire of the Committee that those into whose hands the circular referred to falls, should erase article first and seventh therein, and sign the petition as it would then stand. The objectionable articles probably found their way into the circular inadvertently, and without the knowledge that they ran counter to the wishes of the State Grange expressed in the memorial which it issued conjointly with the Mechanics' Deliberative Assembly.

Must Pay Up.

Grayson Grange, No. 31, applied to the Executive Committee, at its late session, to have the dues on members who are delinquent remitted, and the Grange allowed to go on with its live members.

After due consideration of the above, the Secretary of the State Grange was instructed to notify said Grange that it must pay up to the State Grange in full for its membership to date, or surrender its charter, as required by the Constitution and By-Laws of the State Grange.

As the amount delinquent is small there will be no difficulty in complying with the requirement, and we merely notice the circumstance as one of interest to all Subordinate Granges, in the matter of requiring prompt payment of dues from their membership. So long as they keep names on their roll they will be required to make full and prompt payments on all such names to the State Grange, whether the members themselves pay up or not.

Under these circumstances, and to secure a more prompt payment of dues to subordinate Granges in future, the Executive Committee have recommended certain changes in the Constitution and By-Laws of Subordinate Granges, which, with certain others of a more general character, have been suggested by a correspondent of the RURAL PRESS. These suggested changes will be given in another issue.

Installation in Santa Clara Grange and Harvest Feast.

Notwithstanding the bad roads and the threatening aspect of the weather, the streets of Santa Clara were all astir with carriages, buggies and spring wagons on the morning of New Year's day. In and on they came, from every direction, bravely spattering through the slush and mud, as if drawn together and inspired by the same common interest. All the hitching places in and about the business portion of the town were soon occupied, and well dressed men and women, with well filled baskets in hand, could be seen in all directions. What could it all mean? a passer-by might inquire; could it be possible that all these people had mistaken the day, and brought their butter and eggs to market, to find all the stores and business houses closed—except the saloons, and they might as well have been closed, as far as any patronage from this crowd was concerned. But your correspondent was posted; he had read a notice in the RURAL PRESS that there was to be at ten and one-half o'clock this morning, an installation of officers in Santa Clara Grange, No. 71, and, furthermore, and better, the installation ceremonies were to be followed by a harvest feast. My better half and I had been discussing the propriety of our attending, when a special invitation settled the matter, and we resolved to go. At the appointed hour there was assembled

In the Hall

a large and intelligent company of people, not only the members of this Grange, but I saw familiar faces from San Jose and other places. After the opening of the Grange in due form, the regular business of the day was suspended for the installation of the officers for the present year, whose names have already appeared in the RURAL PRESS.

The beautiful and appropriate formula of installation was conducted by Past Worthy Master H. M. Leonard, assisted by young Brother W. H. Garwood, in a most interesting and graceful manner.

The Lunch Room.

After the officers elected had been duly installed and conducted to their seats, a resolution prevailing to that effect, we were all paired off; Worthy Master Wilcox conducting the Lady Ceres, heading the hungry column, we were marched in good order to the lunch room, filing round three long tables, extending the whole length of the room, literally loaded and crowded with the good things provided for the occasion. It seemed there was everything that the most fastidious epicure could desire from the substantials, to the most delicate and tempting viands, all in such lavish profusion as to afford proof positive that we were the guests of generous, big hearted friends. After thanks had been offered up to the Giver of all Good, by the Rev. H. H. Dabbins, we were all invited to take hold and help ourselves. This invitation had not to be pressed upon us very often. I think it was pretty generally and promptly accepted, though I can only vouch, positively, for a little circle around the end of one of the tables.

For the next half hour, more or less, I was so intensely interested and absorbed in matters and things just before me, and in my immediate neighborhood, that I know but little of what was going on elsewhere. I have, however, some distinct recollection of hearing the rattle of knives, forks, spoons and things, all around, and the clatter and hum of the voices of men and women, with frequent bursts of merry laughter.

Miles and miles from here I had heard it reported that the ladies of Santa Clara Grange could not be excelled anywhere in their splendid style of getting up and serving harvest feasts. Well, I don't want to say everything here that may be construed as disparaging to others, as the last one is generally thought the best, when all are so good, as far as my experience goes. But, just here, Messrs. Editors, while the pleasure of this reunion is fresh in my memory, this "feast of reason and flow of soul," and a savour of the good things of the table still lingers on my tongue, I would say, if you should ever be so fortunate as to receive an invitation to attend a harvest feast in Santa Clara Grange, you had better by all means make any sacrifice in the world to do so, even if your whole staff editorial had to pay full fare both ways, or charter a special train for the occasion.

But should you ever receive such an invitation, and anything should occur rendering it absolutely impossible for you to attend in person, and there is any way by which this business can be done by proxy—I hope you will remember how ready and willing I have always been to serve you to the very best of my ability—and would modestly hint, that in matters of this kind, I claim some *ability* and *taste;* and I do assure you, if ever favored with such a commission, I will do my level best to meet the responsibility.

There was another feature of this harvest feast worthy of special mention, and that was such an abundant supply of

Strawberries on New Year's Day.

This supply was not made up of a few scant, stingy dishes or little, sickly berries, just for the name of the thing, raised under glass frames by some skillful gardener; but a bushel or two of fine luscious fruit, grown and ripened untouched by frost in the open fields in mid-winter! Just think of it! While our Eastern brethren are shivering and chattering their teeth around their red hot base burners, with the mercury away down below zero, we, in our favored climate, are luxuriating in luscious "red strawberries smothered in cream," fresh from our own gardens!

The very generous supply of strawberries for this occasion was furnished by the newly elected Worthy Master, I. A. Wilcox, from his small fruit farm near town.

Nor is this any freak of nature peculiar to this season. Mr. Wilcox informs me that he has more or less of a late crop every year. Last year his shipment of strawberries to San Francisco ran up to some time in December.

There were other matters of interest in the meeting to-day of which I would like to write, but my letter is already too long. The whole affair was a perfect success, and everything passed off in such a manner as to reflect much credit on the intelligence, energy and good taste of the officers and members of the Grange.

G. W. M.

Santa Clara, Cal., Jan. 5th, 1876.

From the Granges.

Little Lake Grange.

MESSRS. EDITORS:—Our officers were installed January 1st by retiring Master O. Simonsen. After the installation was completed a recess was declared and an ample dinner was spread by the Matrons, of which all were invited to partake. Suffice it to say that as usual with Grange diuners there was abundance for all and to spare. After dinner the Grange was called to order and initiated two new members. Our Grange is still prospering. We are not growing very fast—"slow but sure."

There have been abundant rains in this section, to-day being the first clear day for a long time. Pasturage is good and stock is looking well. The weather thus far has been the mildest known for years. On my ranch, five miles west of the valley of Little Lake, there have been but two frosts, one a few days after Christmas and one to-day.

I could have sent you a bouquet of melon and tomato flowers on Christmas—this, too, where we sometimes have a foot of snow—and potato vines a foot high. A. P. MARTIN.

Willits, Mendocino Co., Cal.

Kelseyville Grange.

MESSRS. EDITORS:—On the 4th of December we celebrated the anniversary of the P. of H. with music, the reading of the declaration of the principles of the order, etc., after which we partook of a good dinner. There were present a goodly number of invited guests. All seemed to enjoy themselves, and enquire when we would have another feast. We had one sooner than we expected, as our regular meeting came on Christmas; the sisters contrived in some way to keep the brothers out of the secret, for at the hour of meeting we beheld a table loaded down with as good a dinner as could be found anywhere, which was quite a surprise. After disposing of the good things, we proceeded to elect our officers for the ensuing year.

T. ORMISTON, Sec'y.

Kelseyville, Jan. 5th.

Petaluma Grange.

Petaluma Grange had a fine turnout on the 8th inst. If this meeting is a fair sample of those which are to follow, then we may be justified in indulging in high anticipations for the future. In the forenoon we discussed the grain sack question, also the Alaska fur monopoly and the school text book question, and passed resolutions concerning the same which we thought were for the benefit of the people. Documents relating to the Immigrant Bureau were laid over to our next regular meeting. During the afternoon all the officers of the Grange were present and duly installed. Mrs. L. W. Walker installed the Worthy Master and W. W. Chapman installed the others in proper order. The following were appointed: Finance Committee, Wm. Hill, C. D. Grover, A. Goatley. Relief Committee, J. H Ormsby, N. Wiswell, G. D. Green, and Sisters E. A. Mock, L. Skillman, W. D. Mann.

F. PARKER, Sec'y.

Petaluma, January 10th, 1876.

Waterford Grange.

W. C. Collins, Secretary, writes: "Farmers are all lying still on account of so much wet weather, and as it is still raining the prospect of farmers finishing sowing their grain is gloomy at present."

Woodville Grange.

J. A. Slover, Master Woodville Grange, No. 199, writes as follows: "Our last meeting, December 18th, passed off sociably and pleasantly. We are still growing gradually. Hope we may have a prosperous year for the Order and for the field."

Temescal Grange.

The members are requested to meet promptly at one o'clock, Saturday, Jan. 15th, for work in the degrees. Bro. J. V. Webster, Master of the State Grange, will install the officers elect. Bro. Christian Bagge succeeds Bro. Webster as Master of Temescal Grange. All Patrons from abroad are invited. Members will request their friends to be present at two o'clock, the hour appointed for installation. A basket lunch will be given by the sisters, who will meet for preparation at twelve o'clock.

Election of Officers.

ALFALFA GRANGE, No. 1, RENO, NEVADA.—Election, Dec. 4th: A. J. Hatch, M.; H. M. Frost, O.; O. C. Ross, L.; A. A. Longby, S.; T. W. Norcross, A. S.; W. L. Ross, C.; M. C. Lake, T.; E. C. McKenney, Sec'y; J. F. Stone, G. K.; Mrs. C. B. Norcross, L. A. S.; Mrs. H. F. Hatch, Ceres; Mrs. T. M. Smith, Pomona; Mrs. F. Vance, Flora; J. W. Boynton, Trustee; E. C. McKenney, Business Agent.

CLARKSVILLE GRANGE, No. 149, CLARKSVILLE, EL DORADO COUNTY.—Election ————: Peter R. Willot, M.; Wm. Woodward, O.; Sam'l Kybunz, L.; Charles Chapman., S.; Joseph Joerger, A. S.; John F. York, C.; George Carsten, T.; Isaac Maltby, Sec'y; J. R. Barret, G. K.; Miss Charlotte Carsten, Ceres; Mrs. R. S. Kybunz, Pomona; Mrs. M. E. Porter, Flora; Mrs. L. E. Willot, L. A. S.

CRESCENT GRANGE, No. 223, HALF MOON BAY, SAN MATEO COUNTY.—Election, Dec. 11th: J. B. Gilchrist, M.; George Lovie, O.; W. S. Downing, L.; M. Diggs, S.; Abner Rider, A. S.; John Holmes, C.; A. L. McDougal, T.; A. G. Woods, S.; J. Marsh, G. K.; Mrs. McDongal, Ceres; Mrs. Mary E. Johnston, Pomona; Mrs. J. Compton, Flora; Mrs. Marsh, L. A. S.

ENTERPRISE GRANGE, No. 129, BRIGHTON, CAL.—Election, Dec. 4th: J. M. Bell, M.; A. M. Plummer, O.; P. S. Lowell, L.; J. J. Bennet, S.; Frank Bell, A. S.; Mrs. H. Cronkite, C.; J. D. Morrison, T.; Albert Root, Sec'y; John Sharpe, G. K.; Mrs. E. B. Plummer, Ceres; Miss Rosa Miller, Pomona; Miss Mattie Sharpe, Flora; Miss Susie Scholefield, L. A. S.

FARMINGTON GRANGE, No. 167, FARMINGTON, TEHAMA COUNTY.—Election Dec. 25th: C. F. Foster, M.; W. E. Jewitt, O.; A. Beauchamp, L.; C. C. Chittenden, Sec'y; W. McLain, S.; Jas. Blackburn, A. S.; T. Dewrey, C.; A. J. Chittenden, T.; F. G. McKee, G. K.; Mrs. S. S. McCampbell, Ceres; Mrs. M. C. Rogers, Pomona; Mrs. M. E. Spuks, Flora; Mrs. Mary Blackburn, L. A. S.

KELSEYVILLE GRANGE, No. 108, KELSEYVILLE, LAKE Co., CAL.—Election, Dec. 25th: J. H. Renfro, M.; E. B. Bole, O.; J. Tryon, L.; A. White, S.; C. C. Barker, A. S.; Wm. Harris, C.; A. Marshall, T.; T. Ormiston, Sec'y; C. A. Piner, G. K.; Miss E. J. Harris, Ceres; Miss M. E. Piner. Pomona; Mrs. A. J. Chapman, Flora; Mrs. R. White, L. A. S.; A. Benson, Trustee.

KEYSTONE GRANGE, No. 244, GRANGEVILLE, TULARE Co.—Election, December 4th: E. Axtell, M.; J. W. Griffes, O.; W. L. Pryor, L.; S. Barker, S.; A. Child, A. S.; David Ross, C.; J. J. Cole, T.; N. R. Goldin, Sec'y; A. J. Burdy, G. K.; Mrs. M. E. Ross, Ceres; Mrs. C. A. Dodge, Pomona; Mrs. Nancy Axteli, Flora; Mrs. Laura Bascom, L. A. S.

KIWELATTAH GRANGE, No. 88, ARCATA, HUMBOLDT COUNTY.—Election, Dec. 25th: G. B. Kneeland, M; H. W. Arbogast, O.; Geo. Zehendner, L.; W. N. Campbell, S.; A. P. Falor, A. S.; L. F. Meachan. C.; Jos. Nellist, T.; C. H. Daniels, Sec'y; F. P. Deuel, G. K.; Sister I. Minor, Ceres; Sister M. J. Falor, Pomona; Sister G. B. Kneeland, Flora; Sister Jos. Nellist, L. A. S.

LIBERTY GRANGE, No. 69.—Election, Jan. 3d: T. M. Tracy, M.; E. W. S. Woods, O.; N. A. Knight, L.; H. W. Childs, S.; C. C. Paulk, A. S.; W. Carter, C.: J. B. Turnish, T.; J. Schomp, Sec'y; W. Alport, G. K.; Mrs. H. Tracy, Ceres; Mrs. M. E. Emslie, Pomona; Mrs. L. C. Northrup, Flora; Miss Maggic Carter, L. A. S.; B. A Woodson, Trustee.

LINCOLN GRANGE, No. 187, LINCOLN, PLACER Co.—Election. Dec. 18th: A. J. Sonle, M.; John Crook, O.; Hollis Newton, S.; Lawrence Gulling, A. S.; J. Welty, L.; M. Waldron, C.; E. J. Cox, T.; C. Crook, G. K.; J. S. Philbrick, Sec'y; Mrs. Sarah Cox. Ceres; Mrs. Hollis, Pomona; Miss Lucy Thomas, Flora; Miss Mary Rose, L. A. S.; John Thorp, Trustee for two years; E. J. Sparks, Trustee for one year.

LITTLE LAKE GRANGE, No. 151, WILLIT'S, MENDOCINO Co.—B. Mast, M.; D. Lambert, O; P. Muir, S.; Z. Gardner, A. S.; M. K. Sawyers, C.; O. Simonsen, L.; J. G. Snell, Sec'y; M. P. Buck, T.; James Frost, G. K.; Mrs. P. Mast, Ceres; Mrs. D. Lambert, Pomona; Mrs. A. Simonsen, Flora; Mrs. P. Buck, L. A. S.

NATIONAL RANCH GRANGE, No. 245, NATIONAL CITY, CAL.—Election, Dec. 29th: F. A. Kimball M; E. T. Blackmer, O.; Mrs. F. M. Kimball, L.; M. B. Hammer. S.; N. P. Rouland, A. S.; Mrs. J. Walker, C.; W. C. Kimball, T.; G. L. Kimball, Sec'y; L. Roberts, G. K.; Lucretia Parsons, Ceres; Abbie Pardee. Pomona; Mrs. L. Roberts, Flora; Mrs. S. C. Kimball, L. A. S.; Mrs. S. A. Bryant, Trustee.

NEW CASTLE GRANGE, No. 241, NEW CASTLE, PLACER Co., CAL.—J. H. Mitchell, M.; Wm. H. Brainard, O.; B. Prewitt Tabor, L.; J. H. Nixon, S.; I. F. Tabor, A. S.; John C. Boggs, C.; Wm. J. Prosser, T.; Wm. A. Donalson, Sec'y; J. T. Woods, G. K.; Mrs. J. H. Mitchell, Ceres; Mrs. J. C. Boggs, Pomona; Mrs. G. Griffith, Flora; Miss N. E. Nixon, L. A. S.

OAKDALE GRANGE, No. 160, OAKDALE, STANISLAUS COUNTY.—Election, December 18th, 1875: C. R. Callender, M.; S. P. Bailey. O.; David Mouror, L.; G. F. LeClart, S; C. A. Adie, A. S.; F. G. Whitby, C.; Robert Lovell, T.; C. B. Ingalls, Sec'y; G. W. Walther, G. K.; Mrs. M. E. Bailey, Ceres; Mrs. A. H. Rutherford, Pomona; Mrs. Maria Callender, Flora; Mrs. E. V. Ingalls, L. A. S.; Sebastian LeClart, Trustee for three years.

PLUMAS GRANGE, No. 245, PLUMAS, CAL.—Election, Dec. 18th, 1875: A. J. Spoon, M.; A. B. Huntly, O.; B. F. Bobo, L.; J. E. Goble, S.; R. A. White, A. S.; A. Trimble, C.; J. L. Crow, T.; T. Black, Sec'y; W. C. Bringham, G. K.; Mrs. Josie A. Spoon, Ceres; Miss A. F. Hubbard, Pomona; Mrs. H. Kirby, Flora; Mrs. Jessie H. Stiner, L. A. S.

PLYMOUTH GRANGE, No. 232, PLYMOUTH, CAL.—Election, December 18th: Jonathan Sallee, M.; Chester Perry, O.; Harding Vanderpool, L.; Hugh H. Bell, S.; Isaac W. Whitacre, A. S.; Eleazer S. Potter, T.; Sarah L. Horton, C.; Stephen C. Wheeler, Sec'y; Sarah Vanderpool, L. A. S.; Sarah J. Sallee, Ceres; Charity Rickey, Flora; P. A. McKenzie, Pomona; Chester Perry, James Wheeler and Hugh H. Bell, Trustees.

READING GRANGE, No. 195, READING, SHASTA Co.—Eleotion, Deo 4th: Joseph Dinsmore, M.; E. A. Reid, O.; John George, L.; H. C. Woodrum, S.; H. Wilson, A. S.; F. Michaelson, Sec'y; Joseph Mullen, T.; D. R. McLaughlin, C.; George Dersh, G. K.; Mrs. Artie Clendinen, Ceres; Mrs. E. J. Wood, Pomona; Mrs. M. Close, Flora; Mrs. Anna Woodrum, L. A. S.

ROSEVILLE GRANGE, No. 161.—Election, December 4th: Wm. H. Murry, M.; J. F. Cross, O.; Nicholas Mertes, Sec'y; Geo. R. Grant, L.; Geo. Williams, S.; G. Heinish, A. S.; Rev. Bro. Fredricks, C.; John McClurg, T.; E. Daley, G.; Mrs. S. Cross, Ceres; Mrs. M. Mertes, Pomona; Mrs. M. Neher, Flora; Mrs. L. Murry, L. A. S.

SALIDA GRANGE, No. 8, MODESTO, CAL.—Election, Deo. 25th, 1875: J. D. Reyburn, M.; L. O. Brewster, O.; B. F. Parkes, L.; W. R. Icanberry, C.; H. Miller, T.; W. H. Chance, S.; B. T. Elmore, A. S.; J. P. Vincent, Sec'y; W. M. Harbinson. G. K.; Mrs. M. E. Reyburn, Ceres; Mrs. M. F. Wilson, Pomona; Miss Joanna Feagin, Flora; Mrs. L. Shoemaker, L. A. S.

SAN BERNARDINO GRANGE, No. 61, SAN BERNARDINO, CAL.—Election, Dec. —: Geo. A. Lord, M.; C. H. Mero, O.; L. Cram, S.; J. T. Read, A. S.; J. C. Cameron, C.; Mrs. C. A. Collins, T.; R. Shelton, L; T. D. Henry, Sec'y; Ed. Clyde, G. K.; Mrs. D. Rathbun, Ceres; Mrs. M. Carter, Pomona; Miss M. J. Cable, Flora; Mrs. E. Shelton, L. A. S.

SATICOY GRANGE, No. 49, SATICOY, VENTURA Co.—Election, Dec. 31st: E. B. Higgins, M.; J. B. Alvord, O.; Thos. T. Arandell, L.; A. Woodford, S.; Ed. Williams, A. S.; W. B. Baker, C.; M. D. L. Todd, T.; Mrs. A. Baker, Sec'y; W. O'Hara, G. K.; Mrs. C. Haines, Ceres; Mrs. D. Hatten, Pomona; Miss F. Williams, Flora; Miss I. Ricker, L. A. S.

SNELLING GRANGE, No. 105, SNELLING, MERCED Co.—Election, Dec. 18th, 1875: G. C. Baker, M.; L. G. Burns, O.; Daniel Yeiser, L.; Peter Fee, S.; J. P. Truesdale, A. S.; S. E. Smyer, C.; A. D. Baker, T.; Erastus Kelsey, Sec'y; Chas. Kelsey, G. K.; Mrs. M. E. Yeiser, Ceres; Mrs. L. E. Fuller, Pomona; Miss M. E. Pratt, Flora; Mrs. M. Kelsey, L. A. S.

SUTTER MILL GRANGE, No. 179, COLOMA, EL DORADO Co., CAL.—Election, December 18th, 1875: J. G. O'Brien, M.; Francis Veerkamp, O.; A. J. Christie, L.; A. Mosely, Sen., C.; Wm. Stearns, S.; Geo. W. Ramsay, A. S.; Jas. Crocker, T.; Henry Mahler, Sec'y; Ezra M. Smith, G. K.; Mrs M. J. Stearns, L. A. S.; Mrs. Robt. Chalmers, Ceres; Miss Annie E. Hume, Pomona; Miss Aggie Mahler, Flora; W. D. Ottrick, Trustee.

WALNUT CREEK GRANGE, No. 118, LAFAYETTE, CONTRA COSTA Co.—M. L. Gray, M.; G. M. Bryant, O.; N. Jones, L.; J. W. Jones, S.; W. K. Daley, A. S.; John Baker, C.; John Larkey, T.; R. M. Jones, Sec'y; C. S. Whitcomb, G. K.; Mrs. Larkey, Ceres; Mrs. Hughes, Pomona; Miss Lizzie Hodges, Flora; Mrs. Nettie Jones, L. A. S.

WATERFORD GRANGE, No. 57, WATERFORD, STANISLAUS COUNTY, CAL.—Election, Dec. 25th, 1875: R. R. Warder, M.; James Kinkead, O.; G. W. Janes, L.; James Sheldon, S.; John Wooters, A. S.; R. H. Bently, C.; J. Brown, T.; W. C. Collins, Sec'y; John Search, G. K.; Mrs. V. Kinkead, Ceres; Miss M. Fagon, Pomona; Miss L. A. Collins, Flora; Miss N. Brawder, L. A. S.; W. K. Summer, Jas. Sheldon and James Kinkead, Trustees.

WEST SAN JOAQUIN GRANGE, No. 3, ELLIS, SAN JOAQUIN Co.—Election, December 11th: C. D. Needham, M.; J. M. Kirlenger, O.; J. Carroll, L.; R. Saddlemire, S.; H. B. Needham, A. S.; J. C. Allen, C.; D. S. Todd, T.; J. Quackenbush, Sec'y; W. Haynes, G. K.; Mrs. Aurora Lewis, Ceres; Mrs. Olive L. Needham, Pomona; Mrs. Sarah A. Woodall, Flora; Miss Ella Isabella Bonsall, L. A. S.; Mr. C. E. Needham, Agent; John Geddes, Trustee.

WOODBRIDGE GRANGE, No. 84, WOODBRIDGE, SAN JOAQUIN Co., CAL.—Election, Dec. 1st: Ezra Fiske, M., H. C. Shattuck, O.; G. W. Bressler, L; B. S. Saunders, S.; Samuel Woodruff, A. S.; F. A. Perley, C.; George H. Ashley, T.; J. D. Hnffman, Sec'y; Jno. Hemphill, G. K.; Miss Nellie R. Woodruff, Ceres; Miss Emma Skey, Pomona; Miss Eliza Greer, Flora; Mrs. Hannah E. Huffman, L. A. S.; E. J. McIntosh, Trustee.

WOODVILLE GRANGE, No. 199, WOODVILLE, TULARE Co., CAL.—Election, Dec. 18th: J. A. Slover, M.; Robert McKee, O.; Thos. Lewis, L.; J. S. Johnson, S.; John Stewart, A. S.; T. B. Ferquay, C.; T. J. Ray, T.; J. H. Grimsley, Sec'y; J. P. Heusley, G. K.; Mrs. R. J. King, Ceres; E. E. Hensley, Pomona; J. Roach, Flora; M. E. Roach, L. A. S.

VALLEJO GRANGE, No. 120, VALLEJO, SOLANO COUNTY.—J. F. Deming, M.; A. McKennon, O.; S. S. Drake, L.; H. A. Beckwith, S.; M. Carroll, A. S.; B. B. Brown, C.; A. T. Robinson, T.; G. C. Pearson, Sec'y; R. Miller, G. K.; Mrs. Hettie Deming, Ceros; Mrs. F. A. Mosely, Pomona; Mrs. Mary L. Robinson, Flora; Mrs. S. Wilson, L. A. S.

Laws Desired.

MESSRS. EDITORS:—At a meeting of Pomona Grange, No. 3, held in Suisun December 30th, the following resolutions were unanimously adopted:

Resolved, That ths Grangers throughout the State do make an earnest effort to induce, "through their agency and co-operation," the Legislature now in session to enact laws having in view the following objects:

Providing for the allowance of one per cent. per month on all taxes paid prior to January 1st, and after that date fixing a similar charge for a period of thirty or sixty days; then to add five per cent. for a further period of thirty days before declaring them delinquent and commencing suit thereon. Requiring the Board of Supervisors to submit quarterly, hy publication, an account of all receipts and disbursements for the past term. And further a law whereby criminal labor may bs utilizsd for the benefit of the public. Also a bill making warehouse receipts negotiable. Also a bill to increase the license of saloon keepers and further define their liabilities.

Resolved, That our representatives bs requosted to make an earnest effort to relieve us from doubls taxation through mortgages.

Resolved, That we arc in favor of the enactmont by the present Legislature of a road law whereby each district in ths county will have the exclusive uso of all road taxes paid in said district; the said taxes to be applied on roads in said district.

Resolved, That we are in favor of the enactmsnt by the present Legislature of a law providing for a general system of irrigation, and that we decm it of the greatest importance to the best interests of the State that such a law should be passed at the present scssion.

J. R. MORRIS, Sec'y.

Cordelia, Cal., Jan. 10th, 1876.

In Memoriam.

John L. Fifield, Secretary of the Galt Grange, sends us the following resolutions, which were adopted at the meeting of January 7th, 1876:

WHEREAS, The Divine Master has seen fit to remove our beloved Sister, Mrs. Annie B. Maxfield from our midst to a home not made with hands, eternal in the heavens; therefore be it

Resolved, That in the death of Sister Maxfield, our Grange has lost a true hearted member, and her husband a devoted companion.

Resolved, That we, as a band of devoted brothers and sisters, extend our deepest sympathy to her afflicted family.

Resolved, That we drape our charter and wear the usual badge of mourning for thirty days, and that a copy of these resolutions to spread upon the minutes of the Grange, and a copy forwarded to the family, and also to the RURAL PRESS for publication.

JOHN BREWSTER,
JOHN MCFARLAND,
ROSANNAH MCINTYRE, } Com.

AGRICULTURAL NOTES.

California.

ALAMEDA.

CROPS ASSURED.—*Enterprise*, Jan. 8: During the close of last and early part of this week we have had an excellent fall of rain. In some respects many of our farmers will regret the same, but on the whole our future prospects are assured, and a good grain crop is now a certainty. Many acres of land have been plowed but the rain has prevented the sowing of grain until the land has a little sunshine upon it.

COLUSA.

THE GLENN FARM.—*Enterprise*, Jan. 1: From Mr. Isaac Bayliss, of Colusa, we have the following news from the Glenn farm: There will be in cultivation on this large farm this year 37,000 acres, of which Isaac Bayliss will have 8,000 acres; George Hoag, 7,000; Pike Gupton, 9,000, and Dr. Glenn, 13,000 acres. No season ever known to the section has ever presented more flattering promises. The volunteer is several inches high, and the lately sown grain is looking very promising. The work of winter seeding is going on rapidly, and by the first of January the preparations for the crops of the ensuing year will be finished. The feed on the ranch is first rate, and Dr. Glenn's large herd of cattle is doing well. The doctor is giving his constant and personal attention to a large number of beef cattle just ready for the markets.

EL DORADO.

RAINFALL.—*Republican*, Jan. 6: During the last ten days we have had but little sunshine, cloudy, hazy weather largely prevailing, with one or two days and nights of pretty sharp rain, and present indications are favorable to a continuance of the same disagreeableness. The rainfall for the season, up to 4th inst., has been, as indicated by the gange of the El Dorado W. & D. G. M. Co., 27.02 inches, being more than double what it was last year at the same date.

KERN.

MORE ALFALFA.—*Californian*, Jan. 6: The preparations for planting alfalfa exceed anything ever before known in this country. Two car loads of seed have recently arrived, and probably five to ten car loads will be required in addition to the amount raised in the valley. A great part of the seed produced here has been injured by rain before threshing. The fault is in delaying the seed crop too late in the season.

A GREAT STORM.—*Courier*, Jan. 8: A terrible sand storm, the like of which has never been witnessed in this section before, visited us on Thursday last. The wind blew in gusts all the morning, with occasional lulls of brief duration, but no sand appeared till about 2 o'clock, when a yellow cloud in the south admonished us that the sirocco was approaching. In half an hour it reached us. The wind blew a hurricane, and the air was filled with sand and dust that penetrated every crack and cranny. At times it was like a yellow fog, so dense that an object could not be discerned at a distance of a hundred yards, and the sky was obscured almost to darkness. Fortunately these storms are of rare occurrence, for they are frequently attended with disastrous consequences. The last great storm of this character occurred four years ago, and much damage resulted. The Kanawa ranch, situated at the entrance to the Tejon pass, was literally ruined. The soil and young grass were blown out of the ground, and great sand drifts formed in winrows like waves of the sea, four or five feet deep. These winds originate in the Mohave desert east of the mountains, where they prevail with fearful violence, and sweeping through the Tejon pass they carry everything before them. Much apprehension is felt in regard to the destruction of sheep feed on the plains south, where there a great many sheep now grazing.

LOS ANGELES.

AT THE CENTENNIAL.—*Express*, Jan. 8: We are very glad to know that Don Mateo Keller is going to porsonally superintend his own display of Los Angeles wines at the Contennial. There is no man in the State, who from experience and capacity is better fitted to introduce the wines of California to the representative men of the world who will be present at the great national exposition.

CHEERING.—Another fino visitation of rain renders our agricultural prospects even more cheering than they were before. A season of great plenty is doubly assured. The ground is so completely saturated that even a strong north wind storm would effect but little injury. The spring rains, which we never fail to have, will fill up the complement of our meteorological wants this year, and secure us in the largest crop ever raised in Los Angeles county. It is pleasant to note, in this connection, that the agricultural prospects are also good all over the State. Under such circumstances, the money wants of our coast cannot long remain unsupplied, and a general unlocking of the coffers may soon be looked for.

MENDOCINO.

GOOD FOR STOCK.—*Dispatch*, Jan. 1: This has been the best season for stock that Mendocino has had for many years. The general impression was that our hills would be strewn with dead sheep by this time. But instead of that, they are doing well and the majority of them would make good mutton now.

MERCED.

SHEEP DOING WELL.—Stockton *Independent*, Jan. 6: L. U. Shippee, Esq., has returned from a trip among his various herds in Merced, Mariposa and Fresno counties, and reports the country up that way in a flourishing condition. He says the weather is unusually warm for the time of the year; grass is luxuriant, lambs are getting along finely, and most of the farmers are through seeding. Altogether, the prospect for the ensuing year is encouraging.

MONTEREY.

GRAIN SHIPMENTS.—*Recorder*, Jan. 8: There were shipped by the Southern Pacific railroad from Salinas City, since July, 1875, two thousand five hundred and ten and a half tons of wheat, equal to fifty-one thousand two hnndred centals. July, 257 tons; August, 139¼ tons; September, 233 tons; October, 285½ tons; November, 266 tons; December, 117 tons.

PLACER.

GOOD WHEAT.—*Argus*, Dec. 8: Mr. Chamberlain, an old farmer and citizen of this county, living near Lincoln, tells us that the crop prospects in that portion of our county are good. Indeed the wheat crop bids fair to be the heaviest he has known for twenty years.

SACRAMENTO.

BEET SUGAR.—*Record*, Jan. 3: The Sacramento beet sugar factory last year worked up 12,000 tons of beets, and obtained 13 1-2 per cent. of sugar from 7,000 tons sown and raised by the company. The total amount of sugar made is not stated, but the figures given would imply that the product was approximately 3,000,000 pounds.

SECOND CROP.—*Bee*, Jan. 8: There is an apple tree in the yard of R. Oppenheim, corner of Eighth and I streets, which had for years been regarded as barren, but this summer it bore a good crop of fruit, and in the fall the leaves fell off as usual. Since then a second crop has appeared, although the tree is entirely destitute of foliage. These later apples are of good size and flavor.

SAN BENITO.

TIMBER AND FRUIT TREES.—*Advance*, Jan. 8: During the past two years a large number of trees have been purchased, for planting on the farm lands of this valley. Where nothing but a bare, unshaded surface met the eye in the past, can now be seen young and thrifty trees rapidly shooting out their limbs, gathering strength for the production of frnit. The many young orchards of the county will soon yield a profitable return for the money and labor expended on their cultivation.

SAN BERNARDINO.

SHEEP.—*Argus*, Jan. 4: Sheep men are rejoicing over these gentle showers. Sheep in our county are now doing well on the public pasture. We have never had better prospects at this season of the year. Our county is being carpeted with young alfileria and burr clover, and our farmers are driving their sheep back from Lower California.

WOOLEN FACTORY.—*Argus*, Jan. 6: We are strongly encouraged to hope that the building of a woolen factory, in or near town, will be commenced within the next three months. Negotiations are now being effected between inside and outside parties of this plaoe for the consummation of such a purpose.

LARGE SEEDING.—In our own county, we are informed by an intelligent and reliable gentleman and farmer that there is already planted a greater area of land in wheat than was ever planted at any season, since the valley was settled. Our Riverside farmers are putting in almost twice the number of acres in wheat to what there was last year, and all that is asked now is an escape from the rust in spring. Taking it altogether the outlook is promising, and the farmers throughout the State have cause to be jubilant.

SANTA BARBARA.

A LOVELY HOME.—*Index*, Dec. 30: In the Santa Ynez mountains, about two miles northeasterly from Col. Hollister's home, there is a beautiful valley, wherin Mr. Frederiok E. Bartlett has created one of the loveliest homes that can be found in California. A cold mountain stream of crystal water breaks here and there in cascades in finding its way to the plain. With about five years' care and labor Mr. Bartlett has brought his valley home into a high state of cultivation. New potatoes can be taken from the ground every day in the year; and ripe tomatoes are taken from the vines, growing in the air, every month of the year; and green corn can be taken from the stalk for more than six months in the year. With grapes and peaches, almonds, apricots, and apples; with berries of various kinds, a gar-

(Continued on Page 44.)

A Waif.

[Written for the PRESS by Mrs. M. STAFFORD.]

Down the broad channel of life I drift
Away from the cherished years,
And brightly they glow in the "long ago,"
Seen through the mist of tears.

Oh, there are faces whose light is cast
Far from my longing gaze,
Whose bright eyes shine in a glory divine,
With love in their tender rays.

And my grieving spirit in vain would catch
An olden glance of the eye,
A loving embrace and a glance of the face,
From the hearts that whispered "good bye.'

Ah, many a weary league of land
And many a mountain's crest
Stretch, dark and green, their shadows between
The faces whose lips I've pressed.

But the long and lonesome years roll on,
And I, on this golden shore,
Keep watch on the strand, for the bark to land
That shall bear my treasures o'er.

I and my hope walk hand in hand,
And feed on the feasts of years,
On the vanished dreams and the cherished scenes
Kept green by the rain of tears.

Oh! forms I've loved in the faded past;
Somewhere o'er land and sea;
Do those eyes still shine with a beauty divine,
And a longing love for me?

Woodside Papers—No. 5.

[Written for the PRESS by JENNIE E. JAMESON.]

"Well, Susan, you've got some good bread, haven't you?" said Aunt Keziah, as the members of the "Woodside cottage" family sat down to dinner.

"Yes, indeed; Give me steamed graham bread forever," returned Mrs. Payson. "I made it just as you said, with one pint of sour milk, one teaspoonful of soda, same of salt, four spoonfuls molasses, and enough graham flour to make a batter about as thick as I could stir easily. I steamed it three hours.

"I do not think it is quite so nice as the loaf you made the other day, but 'experience is the best teacher,' and I shall soon 'get my hand in,' as the saying is."

"You are right in saying that experience is the best teacher," said Mrs. Brown. "Or, perhaps we might say, experience is a teacher one *must have*, with others, if they succeed. Let one unused to cooking, take a popular recipe book and follow its teachings to the best of their ability. What trials, tribulations and failures they will have. One might pass down the long line of rules and recipes with a tolling bell, and the sound thereof should be—ex-pe-ri-ence, ex-pe-ri-ence, ex-pe-ri-ence! The solemn sound would strike terror to the heart of many a young housekeeper who had neglected, as so many do, this very important part of a thorough education.

"It is a terrible pity that young ladies should think it beneath them to hire out to do housework.

"There should not be a public sentiment to cause such a feeling, as it would be advantageous to many young ladies without homes to enter good families for a time; but they shrink from it, because in some places they are looked upon as inferiors. There are ladies who, we might almost say, step off the graduating platform into married life with but the slightest, if any, knowledge of cooking. Others work in shops and mills until they marry and go house-keeping. (?) Then, oh! then, what solemn faces! what aching heads! what burned and blackened hands! what ominous looking dishes! what searches for 'some place to put things that are not just fit for the table, you know!'

"Certain old, unused wells, certain deep ditches, certain dingy porcines, fare sumptuously every day, all because many sweet but ignorant maidens 'guess they can keep house.' They are quite positive that they can sweep, wash and iron; they are '*not so sure about the starched things*—aren't shirt bosoms *awful* hard to do up?' 'As for cooking, there's the recipe books; they tell a body all about it!'

"*But they don't!* and that's where the tolling bell comes in. People are not careful enough when they write recipes. Indeed, I presume I should not write them myself so that others could take the same measurements that I do. Spoons and cups vary in size; then we are apt to forget that some who will try them know nothing about cooking. Again some writers seem to have no judgment about writing recipes. I have just found one in one of your last papers for oat meal cake. I rejoiced greatly when I saw it, hoping it would tell me how to make good ones without cream. I shall never forget the delicious ones I used to make when on the farm, with rich buttermilk, salt and soda, mixing very thin, and baking quickly. But now I have no buttermilk, and no cream, except the very small quantity given by my wee tin cow, which has a bad habit of looking very blue and disconsolate in winter, probably because the milkman does not feed it properly. But here is the recipe: 'Take one pint of milk, a *pinch of salt*, and just enough warm water to stir it as thick as rye griddle cakes. Bake twenty minutes.'

"Take one pint of milk—so far, so good; but the 'blind leader of the blind' does not say whether sweet or sour milk should be used; that is an important item.

"'A pinch of salt!' Now every one knows that a 'pinch' is various. It may be a fourth of a teaspoonful; or it may be five times that amount. The scribe goes on, unfolding the wondrous plan, by saying, 'just enough warm water to stir it as thick as rye griddle-cakes.' I never knew that warm water would thicken anything, but supposing it did, how is every one to know how thick rye griddle-cakes are? I'm sure I never made any, and I've cooked a good deal. Imagine a beginner making that delectable dish with a pint of *sour* milk and no soda. I have read a recipe for good bread, where all the ingredients mentioned were 'one cup salt and flour enough to make a good batter;' but there must have been a mistake somewhere.

"Recipes should be given very plainly, and the exact measurement should be given, if possible, instead of 'pinches, handfuls, a little.' etc., and the individual who concludes to sail on the sea of experiments should have, at least, pint and quart measures. But, after all, they need *experience*. They must get 'their hand in,' as the saying is. How often I have heard women say, 'I used to have excellent success preparing such and such kinds of foods but now I have no luck at all; I suppose it's because I haven't kept my hand in.'

"I am very glad that you like the graham bread. I have taken meals with a great many farmers, and I find but very few who use graham to any extent. In many families, brown bread and johnny-cake is the only coarse food they have. It is a wonder that they live out half their days, eating fine flour bread—often made from poor flour, and heavy or full of holes; and using pork largely for meat, with all sorts of fried abominations, such as fried potatoes, onions, doughnuts, etc. I sent a recipe for a delicious beef stew to a friend out West, the other day, and flattered myself I had conferred a favor. She wrote back, 'Ha-ha-ha! what did you suppose I could do with a recipe for *beef* stew? We never see any beef here; send along your recipes for *pork* stews.'

"By the way, perhaps you would like to try the stew. Here's my recipe book. You see I have two; one blank, for written recipes, another, (which had been written over,) for printed ones, which I cut out as I find them, and put them in nicely with paste or mucilage.

"A larger book might do for both kinds. You have no idea how handy it is. First I put 'Bread' in large letters; and here are several pages filled with recipes for different kinds of breads, buns, rolls, waffles, etc. Then puddings, cakes, pies, &c. are given their appropriate places; the name being placed in large letters at the head of a page, which is numbered, and a corresponding number in an index on the first leaf enables one to find any kind of recipe quickly. I have known people who never used recipes, whatever made was just stirred up, and were never able to tell how they did it. But I never felt inclined to adopt that method. But here is the 'stew.' I nearly always take the bone and the remains of a piece of baked beef, though the recipe says 'three pounds of flank beef, cut fine, boil in two quarts of water till tender, six onions, two turnips chopped not very fine, six potatoes sliced, salt and pepper to suit the taste.' The next recipe is for bean porridge. I do not remember that I ever saw any bean porridge until I was twenty years old, but now I am very fond of it, and these common white beans are very nutritious. Take two pounds of corned beef, soak it, if very salt, then put over the fire in four quarts of slightly warm water; boil until tender. Nearly one pint of beans, parboiled, then boiled with the meat eight or ten hours. I often take out enough of the meat for a meal for my small family, before putting in the beans.

"Speaking about coarse food—I like graham rolls very much. I used to make 'gems,' but they require an egg, and I always have to inform the family that they are *gems*, not rolls, when I make them now, as they are so nearly like the rolls which I make of one pint of sour milk (if some spare pieces of wheat bread are soaked in it I think it all the better), nearly one-half cup of molasses, one even teaspoonful of salt, same of soda, and graham meal enough to make it quite thick. Bake in iron gem pans. With me, soda is not yet a thing of the past. Some say it should be, but my health is quite good, if I do use it.

"There is one excellent kind of food which I never happened to see among farmers, though some may use it. It is crushed white wheat. At first we used the packages of 'Smith's crushed wheat;' now we buy it by the quantity. I boil it slowly about an hour, taking two cupfuls to three pints of water, in which I place a heaping teaspoonful of salt. We eat with milk and sugar, warm, for breakfast. It is also used for puddings, custards and pies. Of course every one knows, or should know, that the best part of the wheat is taken away before it comes to us as fine white flour; and though we are trained to think that we must have fine white bread constantly on hand, or make fine flour biscuits, I think we should be willing to have darker bread if we can, by using it, have better health. Too much cannot be said in favor of crushed wheat. There is one thing that makes it necessary for children, in preference to fine flour.

"But here comes your friend, Emma Moulton. She looks as smiling and happy as possible."

"Well, if you will believe it," said Mrs. Payson, as she arose to meet Miss Moulton, "young Wendall was with her at the concert last night, and I heard to-day that Miss Ray has gone to Boston to spend the winter. Do you suppose we sent her away by talking about her the other day?" "Don't know about that," replied Aunt Keziah; "Guess we'd talk pretty often if we could make folks do as we want them to."

Putting Things Away.

Do women ever think how much time they spend in picking up and putting away? Of course we do not mean to intimate that it is wasted, or that all this labor is done unnecessarily. Women have a vast amount of such work to perform, and few men realize its extent or necessity until some accident or circumstance brings it home to them.

A married man said once that he never realized the amount of work done in bringing things out and putting them away until he happened to sit idly watching the operation of setting the table—"getting tea," as it was called—at a neighbor's house, washing the dishes and clearing them away. It struck him, for the first time, how much real labor had to be done in lifting and carrying between table and pantry, and he determined to lessen such labor in his house as much as possible by constructing a kitchen in his house with every facility and convenience. He thought, with a sort of consternation, if one "tea" requires that amount of labor, what must the work of a house of a lifetime amount to? A very pretty problem, which we should like to have answered.

It is a fact, however, that "putting things away" becomes a sort of mania with some neat housewives, and not only gives them a vast amount of trouble, but sours their tempers, and is a source of annoyance to every member of the family. From a habit probably of being on one spot all the time, eternally seeing and doing the same things, it become a sort of mania, and is in fact a symptom of disease. We think a good plan in such a case would be for the husband to insist on his wife taking a journey, making a visit home, or spending a couple of weeks at a watering place. The change of scene, the breaking up of the monotony of her life, would do her a world of good. Her ideas would become enlarged, her thoughts travel out of their accustomed routine; and when she returned she would take up life less as a burden and more as a basket of flowers, from which it is possible to extract beauty and fragrance.—*Ex.*

OVERWORKED CHILDREN.—A Vermont correspondent writes: "There are many who read the *Tribune* that live on farms, and in the hurry and pressure in which they live, overwork their children. I know of boys ten and twelve years, and even younger, called up at four and five o'clock in the morning to milk from six to ten cows, and what is much worse, they carry two large pails of milk quite a long distance, and perhaps lift it breast-high to strain, and work all day. Children growing should not do much hard work, nor work too long at a time." If children go to bed early and get ten full hours of sleep, it does not hurt them to get up early. Neither does it injure them to work as hard as they play, provided they are given an interest in their work, and do it cheerfully. Horace Greeley worked when he was a boy; so did Henry Wilson. There is not a word to be said in defense of overworking children, but the tendencies are not in that direction. The child brought up to work, who forms habits of constant and persistent industry, has within himself the golden key which opens all doors. It would be a positive advantage to many boys and girls who are kept continually at school, if their parents would let them stay at home and require them to do all they can be taught to do of housework and choring, until their appetites for knowledge grow vigorous, and they are disposed to buckle down to hard study.—*New York Tribune.*

NAPOLEON'S HAPPIEST DAY.—When Napoleon was in the hight of his prosperity, and surrounded by a brilliant company of the marshals and courtiers of the empire, he was asked what day he considered to have been the happiest of his life. When all expected he would name the occasion of some glorious victory, or some great political triumph, or some august celebration, or other signal recognition of his genius and power, he answered without a moment's hesitation, "The happiest day of my life was the day of my first communion." At a reply so unforeseen there was a general silence; when he added, as if to himself, "I was then an innocent child."

GIRLS.—What strange creatures girls are! Offer them good wages to work for you, and ten chances to one if the old woman can spare any of her girls; but just propose matrimony, and see if they don't jump at the chance of working a lifetime for their victuals and clothes!

LIES.—It is said there are more lies told in the sentence, "I am glad to see you," than in any other six words in the English language.

A Ruined Family.

When we hear of a family "ruined by wickedness," we express grief, but no surprise, because everybody expects that disaster or ruin will naturally follow wickedness. Everybody recognizes wickedness as dangerous and goodness as safe. And everybody *ought* to go back to the first cause, and see in the laws of salvation and destruction God's blessing and curse.

A pious teacher, while selling some good books in his district one Christmas vacation, met a father who sent two boys to his school, Harry and Tom, and invited him to purchase.

The man looked the books over, and finding "religion in them," threw them angrily back into the basket. "I'll have none of that trash in my house," he cried.

"I'm sorry you decide so, sir," said the teacher. "These books are not trash. But if good books are not given to boys they will get bad ones."

The man grew profane, and began to abuse the teacher for "having religion in his school," as he said, "I hear you open your school with prayer, and read the bible to your scholars, and make them read it. If you keep that up I'll take my boys out, for I won't have their heads stuffed with such nonsense."

Ultimately he fulfilled his threat.

The boys were taken out of school, and their father's infidelity and hatred of sacred things soon bore fruit in them. Harry became drunken and turbulent, and was turned out of doors to shift for himself. After a career of crime, he served a term in the penitentiary, and soon after his release met his death in a street brawl.

His brother Tom grew up equally dissipated and wicked. He led the life of a vagabond, and fifteen years after his father took him out of school because the bible was read there, he was drowned while engaged in a Sunday frolic on the ice.

The third and youngest son ended his life in much the same way. He was drowned in a Sunday frolic while swimming.

The father drank deeply when trouble came and conscience stung him, and closed his career of blasphemy and evil example in a fit of delirium tremens. The mother who (Heaven save the women the fearful mark!) had joined her husband in teaching her boys to despise religion, became a pauper, and died in the almshouse of a broken heart.—*Companion.*

Teaching Children Courage.

Courage is a vital element of Christian chivalry. Without it, indeed, neither truth nor fidelity to promise can be hoped for. The coward is sure to be afraid when truth means punishment, and is sure to retreat from his engagements when they involve peril. We need valiant souls that have learned to endure and scorn pain, and to face danger fearlessly and promptly when duty requires. Some parents evade this vital part of training by glosses and deception. A mother who has taken her boy to the dentist to get a tooth pulled out will often say, if he is shrinking, "Sit still, my boy, it won't hurt you." Now she knows it will hurt him, but thinks if she can only get him by this device to sit still and let the dentist get hold of the tooth, then his discovery of the pain will not hinder its extraction. This is a double mistake. It destroys the boy's confidence in her; for he detects her in a lie. And though it gets the boy this time to sit still, it is under the delusion that there is to be no pain, whereas he should be taught to face the pain and scorn it. This makes the difference between cowards and heroes. A regiment of poltroons could march up to a battery as cheerfully as a regiment of heroes, if they thought there was no enemy at the guns. The difference is that the heroes know the danger and yet face it valiantly.

THE HAPPIEST PERIOD OF LIFE.—What, then, is the happiest period of human life? I am sure there is only one answer. It is now. If I am doing my duty, to-day is the best day I ever had. Yesterday had a happiness of its own, and up to this morning it was the best day of all. I would not, however, live it over again. I string it, as a new bead, on the chaplet of praise, and turn to the better work and the higher thoughts of this present time. Of all the many days of my life, give me to-day. This should be our feeling always, from the cradle to the hour when we are called to come up higher. Childhood is best for childhood, manhood is best for men, and old age for the silver-haired.—*Ex.*

GERMAN LOGIC.—"I dell you how it vas. I drink mine lager. Den I puts mine hand upon mine head, and dere I finds one pain. Den I put mine hand upon mine body, and dere vash anoder pain. Den I puts mine hand in mine pocket, and dere vas nottings. So I jines mit der demperance. Now dere is no pain in mine head, and der pain in mine body is all gone away. I put mine hand in mine pocket and dere is twenty dollars. So I stay mit der demperance.

A HOOK-AND-LADDER COMPANY.—A farmer complains that a hook-and-ladder company has been organized in his neighborhood. He states that the ladder is used after dark for climbing into his hen-house, after which the hooking is done.

USE what talent you possess. The woods would be very silent if no birds sang there but those that sang best.

Punctuality in All Things.

It is astonishing how many people there are who neglect punctuality. Thousands have failed in life from this cause alone. It is not only a serious vice in itself, but it is the fruitful parent of numerous other vices, so that he who becomes the victim of it gets involved in toils from which it is almost impossible to escape. It makes the merchant wasteful of time; it saps the business reputation of the lawyer, and it injures the prospects of mechanics who might otherwise rise to fortune; in a word, there is not a profession, nor station in life, which is not liable to the canker of this destructive habit.

In mercantile affairs, punctuality is as important as in military. Many are the instances in which the neglect to renew an insurance punctnally has led to a serious loss. Hundreds of city merchants are now suffering in consequence of the want of punctuality among their Western customers in paying up accounts. Witb sound policy do the banks insist, under the penalty of a protest, on the punctnal payment of notes; for were they to do otherwise, commercial transactions would fall into inextricable confusion. Many and many a time has the failure of one man to meet his obligations brought on the ruin of a score of others, jnst as the toppling down, in a line of bricks, of the master brick causes the tall of all the rest.

Perhaps there is no class of men less punctual than mechanics. Do you want an upholsterer? He rarely comes when be agrees. So with carpenters, painters and nearly all others. Tailors and shoemakers often do not have their articles home in time. The consequenco is that thousands remain poor all their lives, who, if they were more faithful to their word, would secure a large run of custom, aud so make their fortunes.—*Exchange.*

Our Girls.

Dr. Mary J. Studley, in her lecture entitled "Practical Lessons to Woman," assures mothers that no amount of praying would counteract the miseries attending the breaking of natnre's laws; that a child's best inheritance is a perfect physique. Little girls should take more outdoor exercise; there is no reason excepting the restraint of her dress, why she should not be allowed the same sports as her brothers. Three hours of school each day, and these not consecutively, is all she would allow a child. Regarding the talk of difference betweeu a man's and a woman's brain, there is none.

With the most careful examinations made under the microscope it is not possible to tell the one from the other. Therefore, with the physical system strong and healthy, there is no reason why a woman should not strive for and accomplish, in the world of letters, as much as a man. This does not apply to girls who are overworked in school, finishing their education at an age when the boy's is fairly begun; nor with those whose habits have been made irregular by the dissipations of fashionable life. In connection with the eyes, Dr. Studley gave the oft-repeated caution against dotted lace veils. The healthy veil is of thinnest gauze, which does not obstruct the vision sufficiently to strain the eyes, and of some color pliant to them, as gray, smoke or blue.—*American Patron.*

How to Choose a Wife.—That young lady will make a good wife who does not apologize when you find her at work in the kitchen but continues at her task until it is finished. When you hear a lady say, "I shall attend church and wear my old bonnet and waterproof cloak, for fear we shall have a rain storm," depend npon it she will make a good wife. When a daughter remarks, "Mother, I would not hire help, for I can assist you to do the work in the kitchen," set it down that she will make somebody a good wife. When you hear a young lady saying to her father, "Don't purchase a very expensive or showy dress for me, but one that will wear best," you may be certain she will make a good wife.

Picking up the Minutes.—A Sabbath school scholar earned a new suit of clothes, shoes and all, by digging dandelions and selling them to the dealers in herbs. "When did you find time, Johnny?" I asked, for, besides being a very punctual and constant scholar at the day-school, he ran errands for Mrs. Davis. "When did you find time?" "There is almost always time for what we are bent npon," said Johnny. "You see, pick up the minutes, and they are excellent picking."

Remember!—Take heart, all who toil; all yonths in humble situations, all in adverse circumstances, and those who labor unappreciated. If it be bnt to drive the plow, strive to do it well; if it be but to wax thread, wax it well; if only to cut bolts, make good ones; or blow the bellows, keep the iron hot. It is attention to business that lifts the feet higher up on the ladder.

A lively girl had a bashful lover, whose name was Locke. She got out of patience with him at last, and in her anger declared that Shakespeare had not said half as many things as he onght to abont Shy Locke.

It's very convenient to be born rich, but it don't evidence any special powers, save the power of money.

"ARTISTS OF THE BRUSH."

Young Folks' Column.

Make Some One Happy To-day.

As Mabel was starting for school grandma said, "Good-bye, dear; make some one happy to-day," and leaving a kiss on the rosy cheek, she went back to her knitting.

The wood fire crackled away and blazed, while it sung out, "Good-bye, Mabel; make some one happy to-day."

"Good-bye, grandma! good-bye, old fire!" And Mabel threw another kiss to each, and bounded off to school, dragging her sled after her.

Just ahead of her was her dear friend, Maud Eastlake. Mabel ran faster than ever to overtake her.

But around the corner, between her and her friend, came Philip Saunders and his little sister, Dora. A good mile they had come this cold morning, and Dora was crying, because she was cold and tired.

Mabel ran by and left them; but some voice said "make some one happy." She looked on at her friend, sighed a little sigh, then turned straight around, and ran back to Philip and Dora.

"This horse is too gay," she said to Philip "put Dora on, then take hold, and we'll be a span."

"You're real good, Mabel; Dora is real tired. I've helped her all I can." And Philip lifted his little sister on.

"Don't cry, Dora. We'll have you there in five minutes," he said as they started.

But the tears had already been driven back by the prospects of a ride.

And when, at last, Philip and Mabel drew up in grand style, it was a pretty, happy girl they lifted from the sled. Philip, too, had been made happy.

"Thank you," said Philip, again, as they stopped. "You've made us both happy."

"Ah," said Mabel, "that's what I did it for." Then she told what her grandmother had said to her at starting.

"Well," said Philip, "you can count two you have made happy already." It's a good rule. I believe I'll try it, too."

"And, grandma," said Mabel, as she told of this and some other things at night, "we onght to count it three, for it made me happy, too." —*Advent Christian Times.*

All Must Learn.

Now, children, if you want to know how things are done, you will have to learn. The people who have experimented and found out how to do things in the best way, have an ambition about them to make it known. So they furnish the newspapers and bookmen with their experience and knowledge. Then, you see, it goes broadcast all over the country, and you can get for a trifle what it has cost years of toil and large sums of money to perfect.

If you want to keep up with the times you must read books and papers that deal in facts that can be turned to practical use—then your time will not have been thrown away. When I am traveling and stop at houses that are neatly painted, with good fences around them, and a nice garden near by, with flowers in the yard, and a great flock of chickens running about, I am almost sure to find on the center table inside the house, several first-class periodicals.

Then, Miss Julia comes in, and we are introduced, I find that she can tell me what kind of potato is best adapted to the soil on her father's farm, and what is good for the grapes in chickens, when grapes onght to be planted and the vines pruned, and all about the different varieties of flowers, and forty other things I don't know myself. She entertains me by the hour, and not once do we allude to the weather or the fashion, or say anything derogatory to any one's character. I leave there delighted, and am convinced it is possible to talk interestingly and profitably without having to resort to the double distilled nonsense of social life.—*Ex.*

For the Boys.—Six classes of company to be avoided: 1st. Those who ridicule their parents or disobey their commands. 2d. Those who profane the Sabbath or scoff at religion. 3d. Those who use profane or filthy language. 4th. Those who are unfaithful, play truant, and waste their time in idleness. 5th. Those who are of a quarrelsome temper, and are apt to get into difficulty with others. 6th. Those who are addicted to lying or stealing.

Good Health.

Death in the Dishcloth.

A lady says in the *Rural World*, when some of you are sure to be down with typhoid fever; when neighbors are neglecting their own work to nurse you; when doctors are hunting in cellars and old drains for the cause, let me whisper in your ear—look to your dishcloths. If they be black and stiff and smell like a "boneyard," it is enough—throw them in the fire, and henceforth and forever wash your dishes with cloths that are white, cloths that you see through, and see if ever you have that disease again. There are sometimes other causes, but I have smelled a whole houseful of typhoid fever in one "dishrag." I had some neighbors once—clever, good sort of folks; one fall four of them were sick at one time with typhoid fever. The doctor ordered the vinegar barrels whitewashed, and threw about forty cents worth of carbolic acid in the swillpail and departed. I went into the kitchen to make gruel —I needed a dishcloth and looked about and found several, and such "rags!" I burned them all, and called the daughter of the house to get me a dishcloth. She looked round on the tables: "Why," said she, "there was about a dozen here this morning;" and she looked in the woodbox and on the mantlepiece, and felt in the dark corner of the cupboard. "Well," I said, "I saw some old, black rotten rags lying round and I burned them, for there is death in such dishcloths as these, and you must never use such again."

I "took turns" at nursing that family four weeks, and I believe those dirty dishcloths were the cause of all that hard work. Therefore, I say to every house-keeper, keep your dishcloths clean. You may wear your dresses without ironing, your snn-bonnets without elastics—but you must keep your dishcloths clean. You may only comb your bead on Sundays, you need not wear a collar, unless you go from home—but you must wash your dishcloth. You may only sweep the floor "when the sign gets right;" the window don't need washing, you can look out at the door; that spider web on the front porch don't hurt anything—but, as von love your lives, wash out your dishcloth. Let the foxtail get ripe in the garden (the seed is a foot deep any way), let the holes in the heels of your husband's footrags go undarned, let the sage go ungathered, let the children's shoes go two Sundays without blacking, let two hens set four weeks on one wooden egg—but do wash ont yonr dishcloths. Eat without a tablecloth; wash your faces and let them dry; do without a curtain for your windows, and cake for your tea—bnt for heaven's sake, keep your dishcloths clean.

Prevalent Errors with Regard to Apoplexy.—A medical authority writing to the New York *Tribune* regarding the death of Vice-President Wilson, corrects one or two very prevalent errors with respect to apoplexy. The symptoms of this disease, so dreaded and so sudden in its attacks, are due to a lack of proper supply of blood to the brain, and not, as is generally supposed, to an accumnlation or "rush of blood to the head." The rupture of the cerebral blood-vessels is due to weakness of its coats, which is the result of general debility or ill health. In the great majority of cases there are no premonitory symptoms. The attack may be preceded by a sense of weight or fullness, vertigo, flushing, etc., but these symtoms are never to be relied on. The liability to an attack increases progressively from the age of twenty years and upward. Another popular error is that persons with short necks, florid faces, and full habit are peculiarly liable to this attack. Recent researches develop the fact that the majority of persons attacked are either spare or of ordinary habit of body. Physicians conclnde that unless one attack has occurred there are but few, if any, physical signs or premonitory symptoms which will warrant the prediction of an attack in any case.

Careless Handling of Children.—I wish to enter a protest in the name of all nervous persons and of the injured little ones against the reckless way in which many heedless persons express their love for children, such as lifting them up by their heads, tossing and catching them in the air, carrying infants on their hands without any support to their backs, and otherwise endangering their limbs or senses. I have now in my mind the case of a man who was renderod a cripple for life through his father's carelessness in lifting him by the ankles, while he was a small child, he (the father) having unfortunately lost his balance and turned the child's ankles in such a way that he was lame ever afterward. Two different persons have told me that they knew when too late that by their thoughtless play with them they had seriously injured infants intrusted to their care, one case resulting in spinal disease and the other in fits. And yet it is a sight daily to be seen, that of people doing these things. Do give the little folks tender handling!—*Rural New Yorker.*

Beef for Diphtheria.—A young lady was recently attacked with diphtheria in a virulent form. Slices of fresh pork were bound on her neck without any good results. Her father heard that the city doctors were using beef extensively for the same purpose, tried it, and in six hours the beef turned green, relieving the sufferer.—*Ex.*

Domestic Economy.

Different Ways of Preparing Cabbage for the Table.

An excellent cold slaw is made by shredding a solid head of cabbage with a thin, sharp knife, or a slaw cutter, then placing the cut cabbage in your dish, pour over it a dressing made by heating a pint of vinegar scalding hot, then beating into it quickly one beaten egg, with a lump of butter as large as a walnut, and a tablespoonful of sugar. The cabbage should be slightly sprinkled with salt and pepper as it is put in the dish.

To fry cabbage, chop or shred quite fine, have a spider hot on the stove, in which is a small quantity of butter or meat drippings, season, and put in the cabbage, and cover tight, stirring often and taking care it does not scorch on the spider. Cooked in this way it is very sweet and nice.

Cabbage makes a nice dish also cooked by dropping into salted boiling water, and when tender taken out, minced fine with a knife, then pouring over it a dressing made by taking a piece of butter the size of an egg, and a coffee cupful of boiling water; cut up the butter with a half teaspoonful of flour, and stir it gradually into the hot water. When it boils, stir in a dessert-spoonful of vinegar, and a dust of pepper, with a little salt. For the sauce, thick sweet cream is an excellent substitute.

For hot slaw prepare the same as for cold slaw, cook tender, and pour over the dressing, or merely season with vinegar before dishing up.

Somebody has said that corned beef with boiled cabbage makes the best three hundred and sixty-five dinners a man can eat in a year. To realize the full measure of excellence the quality, curing and cooking of the beef should be considered, but with this, I have nothing in this letter to do. Perhaps some sister can give us directions by which we may secure perfection in this part of the process. As to the cabbage, have a solid head stripped of the outside leaves, except one layer, divide it into quarters by gashing down nearly through to the lower end of the core. Skim the floating grease as nearly as you can from the top of the water in your boiling pot of beef, and about one hour before dinner time drop in your cabbage and keep it boiling steadily and slowly until you are ready to dish it. Now, carefully lift it out with a skimmer and lay on a platter, draining well, take off the outside leaves left, and your cabbage will come out clear and free from grease or scum.

A New Process of Making Bread.—M. Cecil, a French engineer, has invented a new process of preparing the materials for making bread, which has received the approval of the minister of war and will hereafter be adopted in the French army. By this process an increased percentage of the nutritive properties of grain is retained, so that by avoiding the usual grinding and wetting, the grain that would make 115 pounds of bread in the ordinary way will make what is equivalent to 140 pounds. The new process is described as follows: The un ground grain is first steeped in water, after which it is placed in revolving cylinders, by which it is deprived of its outer husk, which contains but four or five per cent. of nutriment. The grains are then softened by forming them into a thin sponge, and keeping them for a space of six to eight hours at a temperature of seventy-seven degrees Fahrenheit. They are then crushed nnder and made into dough with salt aud water, as usual.

Baked Beans.—Many people do not under stand how to make nice baked beans. One of the most serious troubles is, they don't give them time enough to bake. Bako them slowly all day Saturday, and if convenient let them stay in over night, baking full twenty-four hours, and our word for it, your beans will come out in the morning smoking, with a flavor that will make your mouth water to taste them, and your breakfast will be the best you ever had. We sometimes see persons who only have a moderate liking for baked beans, who invariably bake them three or four honrs, aud that is why they do not like them any better. A day and a night is none too much time to bake these esculents, having parboiled them only a few momeuts, until the skins will crack wheu the air comes to them.

Vegetables.—These should never be washed until immediately before being prepared for the table. Lettuce is made almost worthless in flavor by dipping it in water some hours before it is served. Potatoes suffor more than any other vegetable through the washing process. They should not be put in water till just ready for boiling.

Orange Pudding.—Four sweet orangos peeled and picked to pieces and put in a deep pudding dish with two cups of sugar. Put a quart of milk, the yolks of three eggs, and two dessert-spoonfuls of corn-starch on to boil. Take off, cool it, and pour it on the oranges. Then beat the whites to stiff froth, put it over the pudding and place in the oven until it is of a light brown color.

To Clean a Nubia.—Take a wooden bucket, fill it half full of wheat flour. Then dip your nubia up and down in the flour until it looks white, shake thoroughly, when it will be as nice as new, and not have the drawn appearance which washing gives.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week.	1 month.	3 months.	1 year
Per line..... .25	.80	$2.00	$6.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Prompt Subscriptions.

We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, January 15, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The Oakland Nurseries; Improved Grinding Mills; Improvements on the Overland Railroad, 33. The Fruit Interest; A Pest on the Sweet Potato; The Debris Question, 40. Scenery on the Yellowstone; Placer County; Fruit Growers' Association; Wool Markets, 41. Patents and Inventions, 44.

ILLUSTRATIONS.—Harrison's Grinding Mills, 33. Second Canon of the Yellowstone, 41.

CORRESPONDENCE.—Notes of Travel; Items from Santa Clara; Poland Chinas Wanted, 34.

THE VINEYARD.—A Napa Grower's Propositions; Bunch of Syrian Grapes, 34.

SHEEP AND WOOL.—The California Clip of 1875, 34.

THE DAIRY.—Temperature and Cream Raising, 34-35.

PATRONS OF HUSBANDRY. — The New Grange Headquarters: Proceedings of the National Grange; Anniversary Celebrations; Meeting of the Executive Committee; Must Pay Up; Installation in Santa Clara Grange and Harvest Feast; From the Granges; Election of Officers; Laws Desired; In Memoriam. 36-37.

AGRICULTURAL NOTES from various counties in California, 37-44.

HOME CIRCLE. — A Waif (Poetry); Woodside Papers—No. 5: Putting Things Away; Overworked Children; Napoleon's Happiest Day; Girls; A Ruined Family; Teaching Children Courage; The Happiest Period of Life; German Logic; A Hook-and-Ladder Company, 38. Punctuality in All Things. Our Girls; How to Choose a Wife; Picking up the Minutes; Remember, 39.

YOUNG FOLKS' COLUMN.—Make Some One Happy To-Day; All Must Learn; For the Boys, 39.

GOOD HEALTH.—Death in the Dishcloth; Prevalent Errors with Regard to Apoplexy; Careless Handling of Children; Beef for Diphtheria, 39.

DOMESTIC ECONOMY.—Different Ways of Preparing Cabbage for the Table; A New Process of Making Bread; Baked Beans; Vegetables; Orange Pudding; To Clean a Nubia, 39.

QUERIES AND REPLIES.—Poppy Culture; Lactic Acid; Hungarian Prune; Bees, 40-41.

USEFUL INFORMATION.—Re-seating Chairs; Value of the Common Broom Plant as a Fiber; To Avoid Wet Feet; To Remove Grease Spots from Paper; Apparatine—A New Anti-Incrustator; New Locomotive Attachment; Patent Leather; How to Use Postal Cards; A Cane with a Candle; Plating Cotton with Silk, 42.

MISCELLANEOUS.—Agriculture in the Public Schools; California Swamp Lands, 35. Ball's Sweeping Dredge; Do Great Fires Produce Gales and Whirlwinds? 42.

NEW ADVERTISEMENTS.

"Scribner's Monthly," Scribner & Co., New York; "Patron's Helper," Geo. William Jones, Des Moines, Iowa; The 100 Day Tomato, J. A. Foote, Terre Haute, Ind.; Grangers' Business Association of California, Meeting of Stockholders: Guadalupe Island Company, Meeting of Stockholders.

More Information Wanted.

MESSRS. EDITORS:—I notice an article on the culture of the pine-apple in the PRESS, vol. 10, No. 24, page 377. Will you please give me your correspondent's name and address. I wish to write to him and get more information, I should like to try the cultivation of them in this valley. Where could I obtain slips, etc.? An immediate reply will greatly oblige

Yours truly, R. COUCH, M. D.

Carpinteria, Cal., Jan. 6th.

[Dr. Conch and other readers will find something about pine-apple culture in Mr. Sanders, letter which appears in this week's PRESS. In addition to this we would be pleased to hear our former correspondent answer the request for more information through the columns of the PRESS.—EDS. PRESS].

The Fruit Interest.

There was a meeting in this city on Tuesday last of those interested in the production and sale of fruit. We print elsewhere a full report of the proceedings. It was a spirited meeting, and the immediate result was the permanent organization of "The Co-operative Fruit Association of California." It is too early to judge the society which thus has birth; it must be judged hereafter by its deeds. There are, however, comments which the birth of the organization makes pertinent.

It has been clearly shown by the general fruit growers' experience, during the last few years, that measures must be taken to secure a surer, safer market for the growing fruit crop of this State. We cannot eat it—there are not mouths enough. Fortunately there is a market East, West and South of us. How shall we secure the advantage of this wide market is the question.

The fruit grower produces a perishable article. In its natural state it cannot reach all the points to which it can be profitably consigned. Either the producer must lose heavily by the decay of his ripe fruit, or he must give it a form which is not perishable. This the individual and isolated fruit grower cannot do to the best advantage. He is precluded from selling his fruit at full prices to the private preserving establishments, because they either have not the capital to carry the whole surplus of the crop, or are minded to deduct an excessive margin for the investment; a part of which really belongs to the producer. The remedy which is suggested is this: Let the fruit growers co-operate, both for securing the best sales for their ripe fruit, and for turning at once any surplus which may be produced into an imperishable form; carrying their property in it still as an investment, and in the end realizing from its sale just as they do from the fruit sold in its natural state. The individual grower cannot, as a general thing, avail himself of this remedy against a depressed market and against the process of decay in his product. But, by combining interests, growers can possess themselves of facilities for safety of this kind.

It is our boast, warranted by actual accomplishments, that California produces fruit which can challenge the world for superiority. This is our advantage at the outset. The figures show that the United States consume between twenty-five and thirty million dollars' worth of imported fruit every year. Here there is a market within our own national borders. But it needs constant and systematic effort to supplant an established trade. We can supply the United States with a substitute for this imported fruit; but it will not be enough to state the ability—we must combine wisdom and strength and do it.

It is one of the first principles of profitable production that the producer shall adapt his product to the needs and the tastes of consumers. He must make his product good. He must give it attractive form, so that it will win its way. Then it must please and satisfy. The producer must give his product a standard quality. It must have a certain fixed and uniform excellence, so that it can be bought and sold upon its name. When a merchant orders a large bill of California fruit, he should receive it uniform in style and quality with that which he has been selling, or he cannot hold his distributing trade.

It is in giving proper uniform style and quality to the California fruit product that co-operation among our fruit growers can be made of great advantage to them. It will give their product a name in the markets of the world. It will be a surety to those in distant ports who introduce our goods, that they can rely upon always satisfying any future demand which the introduction of the new brand may invite.

It appears then, that by proper co-operation our fruit growers can discharge a duty which they owe to themselves, and to all who may aid them toward desired ends. They can make their business safer and more remunerative. They can also give it qualities which will ensure growth and endurance. They can build up themselves and the State.

We are glad for the success of the fruit interest, that the discussion of matters connected with it has arisen. Practical and intelligent men can make a co-operative society of great benefit to them. All should have a voice in it. It should not be a creature of the few, but of the many. All should participate in its management, and in the dictation of its policy. If the great mass of interests involved are not well represented, it cannot reach its highest estate of value and usefulness.

ON FILE.—"Grange Notes," by A. R.; "San Jose Installation," by G. W. M.; "Responsibility of Housekeepers," by Loraine; "Queries Concerning Cheese Factory," by G. F. P.; "Mole Destruction," H. K.; "Farmers' Wives," M. E. T.; "Hungry Hollow," J. M. D.; "Northern Part of Santa Barbara County," J. W. W.

MENDOCINO.—A. O. Carpenter informs us that the rainfall in Ukiah, so far this season, has been twenty-one and five-eighth inches. The weather is clear and cool at present.

DISPATCHES from Brussels state that the military had been called out to suppress a labor strike.

A Pest on the Sweet Potato.

As forewarning is forearming, we call attention of our sweet potato growing readers to the fact that a New Orleans entomologist announces the discovery of a new pest infesting the roots of the sweet potato. Dr. S. V. Summers writes to the New Orleans *Home Journal*, describing his discovery. He found a little weevil injuring the roots of the sweet potato, and after studying it thoroughly decides that it is an insect which has no place in the entomological records of the day. He calls it the *Otidocephalus elegantulus*, or "sweet potato root borer." It is a weevil rather small in size, yet larger than the common rice weevil and more elongated than the plum curculio; the elytra, or wing cases, are dark blue, very shiny; the head is more inclined to black, while the thorax, or that division between the head and wing-cases, is a shiny brick red; legs reddish; the larvæ is a long, white, soft worm, destitute of legs.

This is the word photograph of the threatened pest. At present its habitat is given in Louisiana, but the doctor asks sweet potato growers everywhere to look for its appearance and send him specimens, if any be found, in order that the extent of its visitation may be determined. It is well to bear in mind that such a matter is mooted, even if our readers should find none of their tubers infected. It would be well also to examine carefully any imported seed or we may have enemies in our fields ere we are aware.

Dr. Summers gives a full description for the benefit of skilled entomologists, which we reproduce as follows:

Otidocephalus elegantulus n. sp. Long o. 19—o, 20 inch, 4.75—5. M. M. rostrum abbreviated, nigro-piceous, incrassate, scarcely curved, glabrous, minutely and distinctly punctured, shorter than thorax, antennæ slightly elbowed, fuscous, outer joints gradually dilated and paler, arises from anterior third of rostrum, head as broad as thorax at base, depressed and rugose above eyes, piceous inclined to bluish, angles wanting, thorax rufo-testaceous, glabrous, very convex before, suddenly contracted posteriorly, lateral margines distinct, posteur angles ill-defined, elytra convex with striate punctures, punctures minute, curious hairs, glabrous, dark blue, legs fuscous, thighs somewhat emarginate, knees swollen and darker, tibiæ slender slightly arcuated below, middle and posterior tassu elongated.

We should be pleased to hear from any of our readers, both practical growers and entomologists, if any such insect as we have described is known to them.

The Debris Question.

We print elsewhere this week a memorial submitted to the Legislature last Saturday. It is the outgrowth of the farmers' meeting at Marysville, of which we printed a report last week. The memorial is a vigorous document and deserves the study of all, for the interests involved touch all either directly or indirectly. We aim to give our readers all the information which can be obtained upon the subject under discussion, for we conceive it to be one of the greatest importance.

Thus far, so far as we can learn, the opposition to the claims of the agriculturists argue that the damage estimated from the deposition of the debris are very excessive, and endeavor to break down the manifesto in this way. This is at best a negative argument, and it has not been very successfully elaborated. In the memorial which we print to-day there are some new estimates of damages which seem to be carefully made and fortified.

There seems to be no controverting the general proposition which we noted last week as underlying the whole question, and that is that one industry must not be permitted to ruin the prosperity of another or override its success. It is neither in law nor equity, nor is it favorable to the progress of the State, to permit any enterprise or interest to progress by pulling down another.

It does not yet appear what is to be the remedy for the conflict of interests which has arisen. The agriculturists have moved in the best possible way, and that is by demanding that measures be taken to throw light upon the question. No hasty action on a matter which is so wide reaching would be well advised. Rather let such steps be taken as shall result from a full knowledge of the evil and a clear discernment of its remedies. The question should not be approached in a spirit of loud controversy. There are two great interests involved. In the equitable settlement of the differences it will require sober judgment to decide in what way each shall shoulder its own hardships and profit by its own successes. To this each interest is entitled and no more. And more than this fair men on either side will not claim.

IT is stated that there is a probability of the transfer of the Oregon railroads to the Central Pacific railroad company.

INFORMATION indicates certainly that the House Railroad Committee strongly favors Tom Scott's Texas Pacific measure.

THE Centennial committee in Congress have agreed to recommend an appropriation of $1,500,000 for the Centennial.

QUERIES AND REPLIES.

Poppy Culture.

MESSRS. EDITORS:—Would you, or some of the readers of your valuable paper, be kind enough to give me some information (1) with regard to the cultivation of the opium poppy and the manufacture of opium? I learn that some experiments in this line have been made in this and other States, and should like to know the methods adopted and the results, as I desire next spring to give it a trial. Perhaps, also, such information might be interesting to others of your readers. Can you inform me (2) as to the price of opium in the S. F. market? W. A., San Jose.

(1). In reply to our querist concerning the mode of cultivating the opium poppy we reproduce from the files of the *Scientific Press* the following paragraphs:

Although most of the opium of commerce is obtained from Asia Minor and the region of the Ganges, the poppy grows luxuriantly in almost all parts of the temperate zone. It is indigenous almost everywhere within that limit, and flourishes especially in Northern Mexico, and could scarcely fail to grow luxuriantly in Central and Southern California.

This plant, the *Papaver somniferum* of the botanists, is easily and cheaply grown, requiring but little cultivation, while the process of collecting the narcotic juice and converting it into the opium of commerce is as simple as the most ordinary process in common housewifery. Nearly all the work of planting, gathering and producing the drug can be done by children, male or female. It is a marvel that the Chinese have not long ere this turned their attention to cultivating, rather than smuggling opium. The average profits in the former case would be vastly greater, with no risk of failure. The plant matures very rapidly, and is harvested within ninety or one hundred days from planting, and the drug may be ready for market within a few days after it is gathered.

The poppy should be planted in rows about thirty inches apart, and the seed dropped, so as to insure a growth of the plants, about eight inches asunder in the rows. A light, loamy, sandy soil is best for its culture—one which can be readily and thoroughly pulverized. The soil should be well dressed with nitrogenous manures. The seed should be covered about one inch deep. The only after cultivation is to simply stir the ground two or three times during its growth with cultivator and hoe. The plant grows to a hight of from two and a half to four feet. In very dry soils it is possible that some irrigation may be necessary; although experience *may* show to the contrary. If irrigation is needed at all, it will be just before the plants come into bloom. After blooming, and while the juice of the capsule is being formed, irrigation would no doubt be detrimental.

That chiefly cultivated at the East is known as the white poppy, so named from the whiteness of the seed. There is another variety known as the black, producing black seeds. The double-flowered white poppy is still another variety. The variety chiefly cultivated in Germany and France is known, from its large growth, as the "giant." Careful experiments in Germany have shown that better results are obtained from the giant than from either of the other varieties.

(2). Concerning the price of opium in the San Francisco market, we learn that Smyrna opium is jobbing at $6.25 to $6.50 per pound. The opium used by the Chinese is different, and the trade in it is in the hands of the native merchants. We are informed that California opium is little known in the market. It is difficult to sell, because its standard quality is not determined. The percentage of morphine not being established, druggists are not willing to use the California opium in their preparations, for fear of making them either too weak or too strong. If the product should come into the market in sufficient quantities to warrant establishing its definite character, there would seem to be no obstacles to the trade.

(3). We are aware that the manufacture of opium has been put to the test by some of our agriculturists. Will not some of them be kind enough to favor us with the results of their experience?

Lactic Acid.

MESSRS. EDITORS:—Lactic acid in its dietary relation, is assumed to possess wholesome and medicinal qualities. Its available supply seems to be confined to buttermilk—the product of churning. But is not the sour of skimmed milk—the clabber, due to lactic acid? Rich skimmed milk sometimes seems to possess greater acidity than the buttermilk, and I think it has been suggested as an element for making vinegar. The following queries seem to be pertinent. (1). If the acid of skim milk is lactic, then it will answer all the purposes to which buttermilk is applied. (2). Is the sugar of sweet milk the same chemically as that from cane or beets? (3). Would the lactic process in sweet milk convert common sugar, added and mixed with the sweet milk, to lactic acid? (4). If the lactic process may be compared to the yeasting process, then might we

not increase our supply of lactic acid, *ad libitum?* C. M., Petaluma.

(1). The available supply of lactic acid is *not* confined to buttermilk. The acid of sour skimmed milk *is* lactic acid. We reply then: So far as the one substance lactic acid is concerned, it can be obtained from sour milk as well as buttermilk; but whether sour milk can be used for all the purposes for which butter milk is employed, is another question. Our querist does not designate the special uses which he has in mind, and we cannot answer as to all uses to which buttermilk might be applied.

(2). The sugar of sweet milk is *not* the same chemically as cane sugar or beet sugar. The chemical composition is, however, similar, and chemists can interconvert the different sugars by proper processes.

(3). By the fermentation which changes milk sugar into lactic acid, an amount of cane sugar could also be converted. But for the artificial preparation of lactic acid there is a much better process.

(4). The supply of lactic acid *may* be increased *ad libitum*, but not best in the way our querist supposes. Lactic acid is obtained, according to Miller, by dissolving eight parts of cane sugar in fifty parts of water; to this solution one part of casein, or poor cheese, and three parts of chalk must be added. If this mixture be set aside for a considerable time it gradually becomes filled with crystals of lactate of lime. The lime is subsequently removed with sulphuric acid and pure lactic acid is obtained. There may be more recent methods of preparing the acid which are superior, but the one we have cited shows that lactic acid may be produced as rapidly as the demand calls for it.

Hungarian Prune.

MESSRS. EDITORS:—You will oblige several of your subscribers here by informing them through the columns of your valuable paper the answers to the following questions often solicited in regard to the Hungarian prune: (1). Is the tree a vigorous and thrifty grower? (2). Is it productive in bearing, or, like the German prune, does it shed its fruit when two-thirds grown? (3). Is it a free-stone, or does it adhere to the stone? (4). What color and size, and whether best for drying or shipping purposes? (5). Is there any remedy for prune trees that shed the greater portion of their fruit? for with the fruit growers here the prune is very unproductive, owing to the tendency of the fruit to drop off when nearly full grown. By answering, you will oblige me with others.
Coloma, Cal. FRUIT GROWER.

(1). We ask any of our readers who have had experience in growing the fruit which our querist names, to favor us with the teachings of their practice on the points advanced. The knowledge which we possess concerning it is deferred, in the hope that we shall hear of the doing of the tree in this region. This information would be more valuable to our querists.

(5). Concerning the dropping off of the German prune, there are so many conditions involved, that we cannot proscribe a cause without knowing them. As a general comment, however, we cannot do better than quote a remark of Mr. G. W. Hunt, who is a practical grower: "The German prune needs good culture, and so far as my experience goes, will do best on hill or red land. Let it head low and cultivate thoroughly, or the fruit will drop off until there is only a handful left." Mr. Miller, who is also a prune-grower, says: "In 1861 or '62 we planted a number of prunes, some on dry lands, and some on wet, though underdrained—and all on wet land soon died, and all on dry land are fine trees, bearing heavy crops of Fellenberg prunes. My experience would tell me, by all means plant your plum and prune orchards on dry land."

Bees.

MESSRS. EDITORS:—(1). What kinds of hives are best for this State, and how made? (2). Why is it bees do not do as well in the northern part of the State as the south? (3). Is the honey as good or is it difficult to keep the bees? H. J., Yountville.

(1.) The question of best hives is one about which practical bee keepers do not agree. Our advertising columns are open to those desiring to inform the readers where to get good things of this kind.

(2). The reason why bees do not do as well in the north as in the south, with the same amount of intelligent care, (if such be the fact,) will doubtless be found in the better bee pasturage at the south. Bees cannot do well without the proper blossoms from which to draw their supplies, any more than stock can do without proper feed. The white sage at the south is a mine of wealth to the bee keeper. The northern bee keeper must substitute some equally good honey source, or he will labor under a disadvantage at the outset. He must decide for himself whether this is possible by experiment.

(3). The quality of the honey produced from the white sage is said to be unsurpassed by that drawn from any source. If a substitute for it can be grown at the north, we see no reason why the industry north and south should not be equally successful.

Scenery on the Yellowstone.

The second canon of the Yellowstone is described by Prof. Hayden as being carved out of a lofty range of mountains by the river. A sketch taken in this canon is shown on this page. The canon was undoubtedly started in a fissure, but is mostly one of erosion.

It is about three miles long. This is, of course, an extension of the range of mountains in which Emigrant gulch is located, and it undoubtedly contains mines of gold. The rocks, with their peculiarly distinct and contorted strata, as well as texture, remind one of the gneissic mountains in the mining districts of Colorado. The river rushes with considerable force over the loose masses of rock that have fallen into the channel, and presents a picturesque view to the traveler struggling along over the narrow trail, high up on the mountain side. But wherever the water forms an eddy, so that

SECOND CANON OF THE YELLOWSTONE.

it is even moderately quiet, the number of fine, large trout that can be taken out within a limited period, would astonish the most experienced fisherman. Above the canon the rocks return at once to their igneous character. This is readily shown by the difference in the appearance of the surface features. Although the granitic portion is higher and more massive in its general aspect, yet the surface is rounded and much of it covered with debris that admit the growth of grass, while the volcanic rocks give a jagged ruggedness to the outline. Outflows of dark brown basalt, apparently of late date, mingled with huge masses of breccia, can be seen on either side of the valley to the summits of the mountains. The foot-hills on either side are certainly composed of breccia for several miles, which, decomposing, gives to the surface the appearance of the remains of an old furnace. Perhaps it would be better to compare it to a modern volcanic district.

Placer County.

MESSRS. EDITORS:—We have been having very disagreeable weather here for the past few weeks. Rain and fog have each made us frequent visits. We were visited upon Tuesday and Thursday nights of last week by heavy frosts which killed the tomatoes and potatoes, which before were to be seen in many places. A note in regard to alfalfa. Mr. W. J. Prosser, of township No. 9, has thirty acres of alfalfa of two years growth; last year he cut three crops from it, each crop averaging two tons to the acre. A fourth crop was cut and fed green to his cows and they were afterward allowed to graze upon it. Encouraged by his success many farmers in this section will this year sow alfalfa. Mr. J. W. Smyth, of Horseshoe bar, has an orange tree fifteen years old upon which were over two hundred oranges this year.
New Castle, Jan. 5th. B. P. T.

"THE Mission creek land grab" is still the ruling sensation in this city.

THE Southern Pacific railroad depot at Hollister has been destroyed by fire.

Fruit Growers' Association.

A meeting of fruit growers was held at No. 6 Leidesdorff street, in this city, on Tuesday afternoon, January 11th. The meeting was called to order at 2 o'clock by Mr. John Lewelling, of St. Helena.

The minutes of the former meeting were read by A. W. Thompson, secretary.

Mr. Thompson stated that the address calling for the co-operation of fruit growers had been freely circulated. He said he had been to Sacramento and talked with members of the Legislature, and had been assured that the society would be a proper subject for legislative aid if the members would get it fairly launched.

Mr. J. M. Thompson, of Napa, moved that the report be received. There was no opposition.

Mr. Lewelling asked the secretary what arrangements had been made for the Centennial display.

The secretary replied that a committee had been appointed. The members were enrolled with the idea of gaining State recognition and aid, as is given the State agricultural society. It is proposed that $50,000 be granted by the legislature for the Centennial display, and that the fruit growers, by co-operation, gain their share of the appropriation in making a fruit display.

The secretary stated that the authors of the movement had agreed that no permanent organization should be effected until 100 fruit growers should be enrolled. At former meetings sixteen had given in their names.

Mr. J. P. Whitney asked how late entries could be made for the Centennial.

A member stated that the date was fixed for April 19th.

Mr. Whitney then urged the necessity for speedy action. He argued the advantage to the State would be great in representing the fruit industry. It would interest the whole world, and result in an increase in the value of California lands, by inducing a greater tide of immigration.

Mr. J. Begg, of Gilroy, stated that he had been engaged in preparing an exhibition of the California coniferæ. His design was to build a fruit stand of cones, which should serve as the base upon which the fruit should be placed, to furnish the finest display the world ever saw.

Secretary Thompson addressed the meeting concerning the difficulty which California fruit growers meet in making their industry pay. The production is becoming immense, and where is the market to be found? It appeared that there must be canning and drying. The Grangers' fruit association concluded that they would open their doors and invite everybody to come in and aid in the work, and suggest plans for marketing the fruit. It is conceded that California can raise the best fruit in the world. It seems necessary that the fruit dryers and canners must be aided by the producers in preparing the dried fruit. The drying establishments cannot put capital enough into the business to carry all the fruit. The producers should co-operate with the dryers, and take their dividend when the stock was sold. If an arrangement of this kind was made, any surplus of fruit in the market could be at once moved to the drying establishment, and the market would be relieved and prices improved. The fruit would be saved, and when sold the producer could get his pay from the dryers. This would be co-operation, which Mr. Thompson thinks would save the fruit interest.

The field for the sale of dried and canned fruit is large. The United States pays between twenty-five and thirty million dollars in gold for imported fruit. It is this trade which the association aims to supply.

Mr. G. C. Pearson, of Solano county, remarked that a fruit grower can do nothing alone. The lack of uniformity in the product stands in the way of trade. He had failed, after going all over the State, to secure a single car load of raisins which would grade alike. It was the same with pears, apricots, nectarines, etc. He could not fill an order which says: "Send me a lot just like those you sent before." He could get no certain grade of fruit which the trade could rely upon. There was not, either, any uniformity of package. The New York trade calls for twenty-five pound, twelve and one-half pound and six and and a quarter pound boxes of raisins. He could not sell twenty pound boxes. Until the producers study the wants of the trade they cannot make sales.

Mr. Whitney remarked that these questions were important, but the time to discuss them was after permanent organization was effected. He wished to know how this was to be done.

Mr. Thompson believed that the organization would prevail if it were properly brought to the attention of the fruit growers. He believed that the fruit growers must be sought at their homes. The time to do this is now. The matter must be vigorously pushed upon the attention of the growers.

W. W. Brier, of Centerville, thought the fruit growers had a little suspicion of the organization, because it was so much of city origin. He thought it best to go on at once and organize, and the fruit growers would learn the objects of the society.

D. S. McLellan, of San Mateo, said he had made his fruit pay by seeking diligently and intelligently for a market, and he believed by working together the society could do the same.

It was moved and seconded that instead of waiting for a hundred signers the organization proceed at once to permanent form.

A Constitution was adopted clause by clause, with By-Laws.

The following officers were elected:

President—John Lewelling, St. Helena.
Vice-President—George Hughes, San Francisco.
Secretary—A. W. Thompson, San Francisco.
Treasurer—W. W. Brier, Centerville.
Board of Directors—J. P. Whitney, Rockland; R. B. Blower, Woodland; Mr. Drake, San Francisco; James M. Thompson, Napa; James Shinn, Centerville.

Mr. Brier moved that all the members of the society be requested to secure the names of fruit growers to the roll.

A committee of three was appointed to take charge of all matters in connection with the Centennial. The following committee was appointed: A. W. Thompson, W. W. Brier and D. S. McLellan.

A committee of three was appointed, as follows, to see that the objects of the association are understood by the fruit growers: Messrs. C. O. Rhodes, J. B. Sweetser and D. S. McLellan.

Upon motion the meeting adjourned. The society had at adjournment twenty-five members.

Wool Markets.

NEW YORK, Jan. 8th.—There is a very slow business done. The failures recently at the mills tend to distrust, and form a most prominent influence against the trade. Holders do not appear at all anxious as regards their ability to sustain the current market rates on the more desirable lines of stock. The transactions show a change in the prices of California wools. Considering the condition of matters it has met with a fair demand, and full prices have been realized. Spring is quiet. Sales are 10,000 pounds at 18@20 for Choice and 17 for Burry; 32,000 pounds slightly Burry spring at 15@16, and 16,000 Spring at private terms. The estimated stock of Domestic Wool in this city January 1st was 6,499,000 pounds, of which there were of California spring, Oregon and Nevada, 1,332,000 pounds; California fall, 1,490,000 pounds, California Pulled, 170,000 pounds.

BOSTON, Jan. 8th.—The large sales for the three-months ending December 31st, coupled with the indisposition to extend credits so liberally as in the past, have tended to make the trade comparatively quiet the past week. A few small manufacturers have failed, but as this was anticipated it has had little or no effect on the market. Sales of California have been comparatively light and prices are firm. There are orders in the market from buyers for California fleece at a little below current rates, but holders are not yet ready to make the necessary concessions. The sales include 125,700 pounds spring at 25@36c.; 255,000 pounds fall at 14@25c.; 5,000 pounds Scoured at 37@55c.; 12,000 pounds Pulled on private terms. The estimated stock on hand January 1st was 14,250,000 pounds, of which 5,667,000 pounds were California, against 4,323,000 pounds for the same time last year, while prices show a decline of two cents on fall and five cents on spring as compared with the same time last year.

BOUTWELL wants to offer a bounty of $8 per ton for all large iron steamships built in the United States within five years.

J. T. BABCOX has resigned as coiner in the mint in this city and Frank Cicot has been appointed in his place.

THE heavy rains have overflowed the low lands in the vicinity of Stockton.

THE *Overland Monthly* has suspended publication.

Ball's Sweeping Dredge.

Many of the readers of your valuable paper, I believe, will read with interest a statement from myself relative to my enterprise, namely, the Ball sweeping dredge. I desire to place before the public some outline of what I am aiming to accomplish, which is no small matter to the interests of our State and country.

In the summer of 1862 I crossed the plains and settled in Nevada county, where, under adverse circumstances, I accomplished but little, until I came to Oakland about three years ago. While living in Nevada county I traveled some in the great valleys of this State and became awakened to the importance of a general system of irrigation. Having seen what irrigation had done for the poor desert land of the Mormons, I saw how much more favorable were the conditions as to the soil, climate and supply of water for irrigating the great valleys of California, if a grand systematic plan could be had to provide water for all the land possible. At that time I predicted that sooner or later the subject would become a political issue, and a State general system of canals for irrigation, transportation and water for the cities that were to grow, would be accomplished. I would like to dwell more particularly on this point, with reference to some of the causes that have thus far retarded the State government from advancing the subject of its greatest interest—the allowing individuals and incorporated companies to get possession of the water rights and large tracts of land through the various ways of intrigue in which they successfully have operated, thereby placing as it were a complete nightmare on the prosperity of our State, shutting out the poor man from opportunities to till the soil, and thus prolonging the time when the State should be under a high state of cultivation.

Perhaps I am more expectant than many others who have given much thought to the subject. I feel assured that most men in predicting the future progress in the development of the resources of the Pacific States, come far short of what will be seen by those who live twenty years from this date—that a general system, utilizing all the water flowing from the mountains to the great valleys, for irrigation, transportation, manufacturing and other purposes, is the most important feature in the future of our State. Being thus awakened to the importance of the subject, and the certainty that such a scheme would be accomplished, I saw there would be millions of cubic yards of earth to remove in digging the many miles of canals and building reservoirs, therefore was led to see that if I could successfully introduce steam machinery for doing such work, I would do much to advance the project, also better my own circumstances.

About ten years ago I invented the main principles of my improvements in dredging and excavating machinery, and during all these years, although in a helpless condition, I have been centering all my energies to accomplish the one object, namely, to get into practical use steam machinery for digging canals. But while thus engaged an opportunity was presented which enabled me to experiment by attaching my improvements to a dredging machine first. I have made many radical changes from any other dredging machine yet in use, and still I find opportunity for improvements. The results thus far attained, I mean in regard to dredging into scows, then towing to deep water and dumping, assure me that no other machinery now in use can successfully compete with mine. I think the dumping practice is wrong, and believe the taking of the material dredged from under water on the shore is a great necessity; and that by adding to my improvements already made, I shall successfully provide the machinery for that purpose.

I feel sure that my improvements in machinery have already been a benefit to the State, by causing a great reduction in the price of dredging, and I hope they will soon prove to be of great importance to the commercial, farming, and many other interests of our country, especially on this coast. In such assurances, I am sustained by many who are well known to the public to possess a high degree of intelligence, and who occupy positions giving them that experience which best qualifies them to judge correctly with regard to the future progress of our State and country. I have not yet had a test to prove the value of my inventions adapted to land excavation, which I believe of more value than the same used for dredging. Nearly two years ago I succeeded in making a temporary experiment by attaching some of my improvements to an old dredge, which proved by its work done on the Oakland bar that there was value in my improvement; but these proofs did not materially strengthen me to raise means to carry forth the enterprise.

This was because of an unreasonable opposition by parties who would have done much better for their own interests and mine, also, had they been willing to deal with me honorably. After being for a time hand-tied, I at last succeeded in finding a man able and willing to enter into a fair bargain to share with me to build a complete dredging machine. This machine is not yet as perfect as I am sure I can make it; but I earnestly invite all who feel an interest in the progress of the invention and especially those interested in excavating or dredging, to examine the machine now at work along the water front, San Francisco, where can be seen whether I have any reasonable grounds for supposing that such machinery would dig the canals successfully, with speed and at a cheaper rate than by any other means.

The work that has been done for some time past has averaged over 1,500 cubic yards per day of six and a half hours.

About one-half of the time the dredger lies idle for want of the scows being towed away as fast as they are filled, as no one tug can tow the scows away as fast as they are filled. The average time of filling each scow of 105 cubic yards is less than twelve minutes. I am prepared now to do dredging for less than forty per cent. of the prices heretofore existing in this State, and I feel sure that when I have more fully perfected my machinery I shall be able to dig and transfer earth from one place to another, in nearly every case of requirement, for one-fourth of the present cost by the means heretofore used, and also to facilitate such work in proportion that steam power does in the many other uses, as in manufacturing, etc. Therefore, I am hoping to assist in the more rapid development of our country, by aiding in the construction of the canals of which I have spoken.

I am thankful to a kind Providence that I have been been able to advance my enterprise to the extent I have, and with so great success. I am encouraged to persevere regardless of the opposition or hindrances that I may yet have to encounter. I am gratified to see the growing sentiment in favor of a general system of irrigation, and that there is a probability of some definite action in its favor at the present session of the State Legislature.

JOHN A. BALL.

Oakland, Dec. 30th, 1875.

Useful Information.

Re-seating Chairs.

Cane seated chairs are very apt to wear out and then, if their owners are far from the upholsterer, they are thrown aside as useless. Any woman with a little ingenuity can repair them so they will be "good as new." Take any piece of bagging or burlaps—no matter how coarse—and fit them to the chairs, cutting them large enough to wrap about the rounds that hold the splints or canes. Now sew it on with the darning-needle and twine twice doubled, and turn up a hem, as you sew on the burlaps. When half fitted, stuff it with "excelsior" shavings of poplar wood; or if you have them, cut off layers from old quilts, and spread them smoothly over the chairs, under the burlaps. The layers of cotton can be tacked together before they are put in, and then they can be laid more smoothly upon the old canes. Fine hay will also answer for stuffing when nothing better can be procured. Now sew down the other two sides, and take pieces of carpeting, or of enameled cloth, or colored rep, or all wool dress goods, and tack them closely down with large silvered or brass headed nails, which come for the purpose, and behold! your chairs are far handsomer and more comfortable than before. The materials have, possibly, cost you but little, for many an attic would furnish them all but the nails, which must be procured at the upholsterer's. Gimp to match the ground color of the cushion, or even worsted braid, is desirable to place along the edges of the covering, and drive the nails directly through it. This makes a handsomer finish to the cushion.—*Exchange.*

VALUE OF THE COMMON BROOM PLANT AS A FIBER.—The common broom plant is announced as furnishing a fiber equal, and in some respects superior, to that of hemp and flax. In view of the great extent to which this plant occurs wild in Southern Europe, and the case with which it is cultivated, such applications, not indeed new, but only more recently revived, promise important results. Its fiber can be very minutely divided, and as it retains heat, it can supply the place of wool. It receives the most delicate dyes as well as an animal fiber, and successfully resists the action of acids and salt water without undergoing any change or losing its tenacity. Its strength is one-third greater than that of hemp, while it is thirteen per cent. lighter. It can be furnished, delivered at the factories, for about £2 per ton. The fiber may be obtained by soaking the stems for a few days in warm water, or else by means of a chemical solution of little cost.

TO AVOID WET FEET.—Here is another way to prevent water from getting through shoes. The composition also makes a good harness dressing. Take neatsfoot oil, one and one-half pints; beeswax, one ounce; spirits of turpentine, four ounces; and stir until cold. Spread and rub this composition over the leather while it is damp; leather will absorb oil and grease better when damp than when dry. For the soles, take pine tar and rub it in before the fire until the soles will absorb no more. Three or four applications will be needed. The durability of the soles will be much increased. If this preparation will do what is claimed for it, it will be invaluable to miners, who are now compelled to suffer from wet feet, or endure the almost equal danger and inconvenience from the constant use of rubber boots in wet weather.

TO REMOVE GREASE SPOTS FROM PAPER.—Warm the paper and cover it on both sides with dry, finely ground pipe clay, and place it under a slight pressure for a few hours. Then dust off the clay, and remove the fine dust that still adheres by means of a good piece of india rubber.

Apparatine—A New Anti-Incrustator.

A new anti-incrustator has lately been introduced under the name of apparatine, which is prepared by stirring up 16 parts of potato starch in 76 parts of water, and then adding eight parts of potash or soda lye, at 25° Banme, the whole to be thoroughly mixed together. In a short time the mixture forms a thick jelly, and it is then beaten up vigorously for a time, when it forms a colorless, transparent substance, slightly alkaline to the taste, and of a strong glue-like consistency. It dries slowly in the air, without decomposition, and when perfectly dry resembles horn, but is more flexible. When introduced in small quantity into steam boilers it prevents their incrustation. It is also capable of nearly all the applications of ordinary gelatine, and is especially adapted for sizing textile goods of all kinds, imparting to them a hitherto unattained smoothness. When once applied to goods and dried it is perfectly insoluble, as three or four washings in hot water have proved to have no effect upon it. It can also be used as a thickening in calico printing. Several of the technical journals speak of this substance as a very important addition to the resources of the manufacturer and dyer. Care must be taken to retain it in air tight vessels until it is used, as it is not easily rendered soluble again when it once becomes hard.

NEW LOCOMOTIVE ATTACHMENT.—Among the recent novel American inventions is one which is described as consisting of a telescopic arrangement of tubes projecting from the front of a locomotive engine, and so arranged that when pushed in by contact with any object—a cow on the track, for instance—a valve is opened, and a series of projectiles are thrown out, which quickly remove the obstruction. The *Engineer*, commenting on this product of American genius, suggests as an improvement that the tubes be replaced by a projecting spar, to the end of which a torpedo might be attached, which may be exploded by electricity under the beast, and so accelerate its movement!

PATENT LEATHER.—Newark, N. J., produces most of the patent-leather made in this country, and we import none of this kind of goods except patent calf-skins. Our manufacturers have pushed their goods into the foreign markets, and have succeeded in competing with foreigners in their own countries. This branch of business has hardly felt the dull times, owing to the fact that it depends so largely on the foreign market. The manufacture was begun in Newark, in 1813.

HOW TO USE POSTAL CARDS. — Anything whatever, except an address, written or printed on the side intended for the address renders postal cards unmailable, and the same cannot be legally forwarded unless prepaid at the letter rate—three cents. But if, by inadvertence, it reaches its destination without such prepayment, it is chargeable with double the letter rates, minus the one cent originally paid for the postal card.

A CANE WITH A CANDLE.—A very simple walking cane, with a candle enclosed, which might be convenient for use in dark passages, or even for reading in railroad cars, has been invented by a German. The top portion consists of a hollow cylinder screwed on, and containing a spring to press upward as fast as consumed, a candle in it. It is closed by a screw cap, which forms a convenient top.

PLATING COTTON WITH SILK.—A method of covering cotton with silk has been devised. The silk is dissolved in hydrochloric acid, or an ammonial solution of copper or nickel. Water is added until the solution begins to cloud, when the cotton, previously mordanted, is immersed in it for a few minutes. When taken out it will be found to be plated with silk.

DO GREAT FIRES PRODUCE GALES AND WHIRLWINDS?—There has been much said in the newspapers of the high wind which prevailed at the time of the Virginia City fire, and we have yet to learn whether the wind was blowing when the fire began or whether it was occasioned by the fire. It is generally supposed that the great Chicago fire broke out during the prevalence of a gale of wind, but such is not the fact. On Saturday preceding the fire there was a terrific gale blowing from the west, but it had spent its force before Sunday morning, and the afternoon and evening of that day a perfect calm prevailed. And it is a remarkable fact that, during the early hours of Monday morning, there was but little wind ten blocks west of the great path of fire through which a hurricane seemed to be sweeping. This statement can be verified by scores of witnesses who lived west of the river, and we have never had an explanation of the phenomenon. The fire itself created the wind which fed and fanned it, and drove it through the heart of the city with such appalling speed.

However much we may endeavor to comfort ourselves with the thought that a great fire in New York would not be exposed to such winds as came from off lake and prairie, it may nevertheless be true that a vacuum caused by large currents of ascending flames would, even here, produce just such another tornado as prevailed during the Chicago fire, before which New York's proud structures would turn to ashes. Indeed we see no reason why the lesson of Chicago may not yet be repeated in New York, and indeed there is none.—*American Artisan.*

THE PACIFIC RURAL PRESS

For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the PRESS MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the RURAL and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the RURAL PRESS may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the RURAL PRESS for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our HOME CIRCLE department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the RURAL will be cared for in our GOOD HEALTH, USEFUL INFORMATION and DOMESTIC ECONOMY columns. Our GENERAL NEWS ITEMS, NEW INVENTIONS, SCIENTIFIC and MECHANICAL MISCELLANY articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the RURAL PRESS will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the RURAL PRESS of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the PACIFIC RURAL PRESS will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

We Prepay the Postage

On all papers sent to subscribers in the United States.

SUBSCRIPTION RATES, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers,
No. 224 Sansome street, S. F.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Lutber C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petalume, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

SEVERANCE & PEET, Nilos, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

WILLIAM KNOWLES, P. O. Box 337, Oakland, Cal., has for sale Eggs for Hatching, carefully packed, from Brown Leghorns at $4 per doz. Houdans, White Leghorns and Buff Cochins at $3 per doz; two doz. for $5 Sent C. O. D. to any address.

Miscellaneous Notices.

Holloway's Sure Death

—TO—

GOPHERS, SQUIRRELS AND RATS.

This preparation, compounded by a most skillful chemist, is the most efficient poison for the extermination of Gophers and Squirrels. It is cheaper than strychnine, and in using it, saves a great deal of time and unpleasant work. Price, 75 cents per pound. For sale everywhere.

ABRAMS & CARROLL,
WHOLESALE DRUGGISTS,
SOLE AGENTS.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—cost nearly $245,000. Will be kept First-class, at $2.00 per day, and less by the week or month.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER.
521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufecture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in ¼, ½, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the office.

OFFICE and DEPOT: 117 Pine Street, near Front.
FACTORY: Cor. 4th & Townsend Sts.
SAN FRANCISCO, CAL.

3v9-cow-bp-1y

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,
San Francisco.

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine imported Australian, French and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,
433 California Street, S. F.
(Merchants' Exchange.)

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four tablespoonfuls to a washtub of water. For bathing, use one tablespoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.

Also, SULPHATE OF AMMONIA for chemical purpose, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION, for the prevention and removal of boiler scale. CRUDE AMMONIA, for general menafacturing, and PURE LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

☞ Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

eowbp

MICROSCOPES AGAIN.

Just arrived, another lot of Microscopes, only more kinds and more of them, as follows:

No. 1. A handy little brass mounted Microscope, very powerful for the size; just the thing for everybody to have in their waistcoat pocket, to increase their field of vision from twenty-five to fifty times, whether a tiny flower or blasted grain; it is good for either. Sent for one dollar, postage stamps or currency.

No. 2. A two story Microscope, not in size but simply having an an under story, put in to raise up the upper story, which is enclosed in glass. The top can be taken off and a small object, like a flea or fly, can be dropped in. About as powerful as No. 1. Sent free to any address for one doller, postage stamps or currency.

No. 3. Much lerger, and is also enclosed in glass. Too large for the pocket. These last have from ten to one hundred, more or less, mounted objects, consisting of bugs, shells, grain, moss, etc. The top of this also comes off and a flea can be dropped in, which will make it very large, showing its rings, looking somewhat like an armadillo loose in a fairy palace. Sent free to any address for two dollars, postage stamps or currency. Address

CHAS. P. KIMBALL,
513 Hayes Street, San Francisco.

FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of

J. M. DUDLEY,
Dixon, Solano County, Cal.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

Just Published.

THE PUBLIC LANDS

OF CALIFORNIA

AND

U. S. LAND LAWS,

With a Map of California and Nevada.

A BOOK OF INFORMATION,

Especially valuable to Immigrants and Preemptors, and interesting to the public generally.

Contains a general statement of amount of Public Lands now open to pre-emption; Rail road Lands, and where they are situated, how reached; and general instructions for locating and holding.

Contains, also, facts of general interest to all in regard to the chief industries of California. Compiled by H. M. VAN ARMAN.

PUBLISHED AND SOLD BY DEWEY & CO., PUBLISHERS OF THE PACIFIC RURAL PRESS, SAN FRANCISCO, CAL.

[PRICE 50 CENTS, POST PAID.]

California Farmers' Mutual Fire Insurance Association.

No. 6 Leidesdorff St., Rear of Grangers' Bank.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't	L. G. GARDNER...V. Pres't
G. P. KELLOGG, Treasurer	A. W. THOMPSON.....Att'y
I. C. STEELE.....San Mateo	CHAS. LAIRD, ...Salinas
A. WOLF.....Stockton	A. D. LOGAN,.....Colusa
W. H. BAXTER.....S. F	G. W. COLBY .....Butte Co
J. C. MERRYFIELD, Dixon	C. J. CRESSEY. ..Oakland
A. B. NALLY....Santa Rosa	E. W. STEELE, S. L. Obispo

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....	$3,026,378.00
TOTAL PREMIUMS.....	63,306.49
LOSSES PAID.....	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

THOROUGHBRED JERSEY CATTLE.

FOR SALE, twelve bull calves of 1875—three yearling bulls—Also cows and heifers bred from the best imported stock. Address,

A. MAILLIARD,
San Rafael, Marin County, Cal.

50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Commission Merchants.

T. O'CONNOR & CO.,

SEED AND PRODUCE

Commission House,

IMPORTERS OF

Seeds and Semi-Tropical Trees Plants and Fruits, Etc.

500,000 Australian Blue Gum at $25 to $40 per M, in boxes; 250,000 Monterey Cypress at $25 to $40 per M, in boxes; also a consignment of Australian Blue Gum Seed, warranted 1874, per steamship *City of Melbourne*, at 75 cents per oz., or $10 per lb.

Navil (or Seedless) Orango Trees,
Lisbon Lemon Trees,
Passion Fruit-Bearing Vine and Seed,
Norfolk Island Pine (Elcuria) Seed or Plants.
} Australian.

Orange Trees. — Wilson's Seedlings, Kona, Malta Blood and St. Mikel's.

Chuchapela, Pernambuco and Sweet Acapulco; also Vegetable, Grass, Field and Flower Seeds. Australian and Sicily Lemon Seed in barrels. Orange and Mexican Lime Seed in barrels. For sale by

T. O'CONNOR & CO.,
426 Sansome street, near Clay, S. F.

H. K. CUMMINGS. 1858. H. H. RALSTON. 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the producer.
4v23-1y

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

RUPTURE.

Use no More Metallic Trusses. No more suffering from iron hoops or steel springs. DR. ROWE'S PATENT ELASTIC TRUSS is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of DR. ROWE'S comfortable elastic appliances; you will never regret it.

ROWE ELASTIC TRUSS CO.,
tf 609 Sacramento Street, S. F.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

(Continued from Page 37.)

den prodncing the choicest vegetables the year around, and trout in the stream for the catching, makes Glen Loche one of the most favored apots on earth.

A Fine Yield.—*Press*, Jan. 8: The price of land is regarded as very high in the vicinity ot Santa Barbara, but it pays a good interest on s much higher price, it the sncoess of Mr. Brock in rsising sweet potstoes be a fair criterion. He rsised fifty tons on three acres, the past season snd left room for his young trnit trees besides. He is selling the potstoes for $2.50 per hundred, or $50 per ton, msking the crop worth $800 an acre, which is ten per cent. on $8,000 an scre.

SANTA CLARA.

Agricultural Society.—*Chronicle*, Jan. 1: The annual meeting of the Santa Clara Valley agricultnral society was held in San Joae, on Thursday, at the City Market hall. There wss a very large attendsnce of the life members, there being seventy-eight present. The reports of the officers show that after paying over $12,000 in premiums last year there remains a balsnce of $451.85 in the treasury, which makes the funds on hand amount to $2,450, hesides a well improved park, worth at least $100,000. The officers elected to-day were: President, J. P. Sargent; vice-presidents, L. J. Hanchett and Moses Schallenberger; secretary, D. J. Porter; treasurer, John H. Moore; directors, Truman Andrews snd Mrs. L. J. Wstkins; delegates to the State agricultural society, Wm. C. Wilson, C. T. Ryland, J. P. Sargent and Mrs. S. L. Knox. The election of officers was a decided victory tor the horse interest. The horticultural, cattle, agricultural and mechanical interests were totally ignored. We may, therefore, expect the best of races at the next fair, if nothing else. President Wilson was the recipient of a vote of thanks tor his eleven years' service as president of the society. Rain is steadily falling. Farmers are jubilsnt and all are hsppy.

SISKIYOU.

Blooded Horses.—*Union*, Jan. 1: On Wednesday Mr. W. C. Myer, ot Ashland, Oregon, arrived in Yreka on his way home from the East, with a band of fine horses. They are all of them of the celebrated Percheron stock. Mr. Myers has devoted his attention to his stock for some time and has previously imported several stallions to Oregon. He went East for the purpose of purchasing these animals towards keeping up his atock of them on his farm near Ashland.

SOLANO.

Prospects.—*Banner*, Jsn. 8: The crop prospects throughout Northern Solano are very cheering. Summer fallowed wheat is growing finely, and there are apprehensions that it will grow too rank and fall down. The great bnlk of winter sowed grsin is also in the ground, though there are a tew farmers who are not yet through plowing. The opinion seems to he gaining ground that this is to be one of our favorable years, and if so, the crop in this county will be much larger than that ot sny previous yesr, as almost every scre of tillable and is nnder cultivation.

SONOMA.

Pumpkins.—*Democrat*. Jan. 8: We noticed last week that Mr. Wesley Mock had rsiaed a pnmpkin on his grounds, in Santa Rosa, during the past season, which weighed 153 pounds. That was pretty good for a city raised pumpkin, but Mr. O. A. Taylor has raised some on his ranch, on Mark West creek, which lay it slightly in the shade. One of his weighed 118 pounds, another 163, and another 168 pounds.

Fruit Growing.—Ahout three years ago Mr. Julliard came to Santa Rosa and hought thirteen acres of land, then a wheat field. Since that time he has erected a fine residence, set out a great variety of fruit snd shade trees, and the consequence is he hss sn abundance of nearly all kinds of fruit, snch as cnrrants, rsspberries, hlackberries, strawberries, apricots, almonds, cherries, and figs, and he tells ns he will soon have orangea and lemons. We have been told, and have slwaya taken it for granted, that currants could not he propagated successfully in this valley, bnt Mr. Julliard has proven the fallacy of that idea, for he raises some as fine cnrrants as can he tonnd on this coast, and in lsrge qusnities. It is qnite iuteresting to go through his grounds snd aee the different vsrieties of fruit nnder snccessful cultivation, and other improvements he has made in so short a space of time.

The Crop Prospect.—The dry-plowed land throughout the county sowed in wheat before the rain, is looking splendid. On Eugene McPeake's place it is six inches high, and elsewhere on Santa Rosa creek it looks as well. It has already stooled out, and completely covers the gronnd. On the Bancrott place the bsrley and wheat look as well as was ever before seen in this county. The ground is just now too wet to plow. There is a good deal of land ready for sowing as soon as the rain ceases. The feed on the sheep and cattle ranges is better than ever before known at this season of the year, or al all events. since 1852. Sheep are fat, and cattle on open ranges are fast improving. The hsy crop will be better than for many years past, and the promise of a rich and hountiful harvest was never better thau now. The tillers ot the soil in Sonoma county have much to be thankful for.

The Wine Crop.—*Argus*, Dec. 31: Sonoms ranks second among the counties of the State in the production of wine, Los Angeles being first, and Napa third. The product in this county last year was probshly not tar trom 1,800,000 gallons, and in the State about 8,500,000. No relisnce whatever csn be placed in the tables of statistics publiahed in the Surveyor General's report, which represent the wine product of the State in 1874 to have heen 3,893,775 gallons, and of Sonoms county 446,000. There are at present thousands ot acres of land in Sonoma county excellently sdapted to grape culture, that can be purchased st $5 to $25 per scre. The time is not distant when s considerable portion of these lands, which sre of little value for oiher pnrposes, will be reclaimed and converted into vineyards, which will yield handsome profits to those who have the indnstry snd perseverance to nndertake their development.

SUTTER.

Prospects.—*Banner*, Jan. 8: Since our lsst issue we have conversed with many farmers from different portions of the county, (who have heen on a call to the Tax-Collector's office,) and from all we hear the most cheering accounts of the condition of the growing crops. The farmers sre all through seeding, unless it is on the bottom lands, where it is yet too early. Summer-fallow and voluntcer is completely covering the ground, and later plowing and sowing is doing well. Feed is also very forward tor the season, being equal to the first of March, ordinarily. Stock of all kinds is doing well, snd the farmers sre happy over the outlook for 1876.

TULARE.

Rainfall.—*Delta*, Jan. 6: The rainfall in the foothills has been nearly douhle what it has been on the plains. A few miles east of Visalia, a rancher who keeps the rain every season in a common square kerosene tin csn, tells ns that before the last rain, when we reported four inches, he had five and a half in his gauge, which had, of course, been open to evsporation.

YOLO.

Wheat.—*Mail*, Jan. 6: The yield of wheat in Yolo county the past year amounted to sbont 50,000 tons. The exact figures we cannot give, hut from the best dsta on hand the above figures are about correct. The grain was of a very fine quality in all parts of the county—much finer than common, which added greatly to the valne of the crop. This aeason the farmers have great expectations tor the coming year, and are consequently increasing the ares by cultivating every acre they can. The season hss been very favorahle, and their efforts have been put forward to the fullest extent. There is qnite a large amount of whest in store at different points in the county, and shipments have not been so large as in previons years np to this time. The low price offered at the heginning ot harveat was not much of an inducement for farmers to sell, and when the market took an upward shoot so suddenly they imagined there would be no stopping the excitement, and many of them who were able to hold calmly waited to see whst the excitement wonld amount to. They sre waiting yet, and will probably do so for some time to come.

YUBA.

Irrigation Experiments.—*Tidings*, Jan. 8: The Excelsior water company of Smartaville has recently purchased several farms on the Yuba, above Marysville, for the purpose of irrigatiou, it having been demonstrated that muddy water, such aa this company take from the Yuba, is the very beat for that purpose. Four crops of red clover snd five of alfalfa can be cut esch sesson. The company also propose to enter largely into the cultivation of oranges, lemons and nuts, for which the mild climate of the foothills is so admirably sdapted.

The Mining Debris Question.

The most important business in the Legislature on Saturday was the presentation by Assemblyman Berry, from Sulter, of a preamble and set of resolutions on the question of mining versus sgriculture, which has lately given rise to some controversy between important sections of the State. Following are the preamble and resolutions:

To the Senate and Honse of Representatives of the United States, in Congress assembled:

First—Your memorialists, the Legislature of the State of Califoruia, respectfully represent to your honorable body, that the system of hydraulic mining, as now prosecuted upon the headwaters of the Sacramento river, the Festher river, the Yuba river, the Bear river, the American river and numerous other smaller streams, all of which flow into the Bay of San Frsncisco, is hsving the direct effect of covering np all the rich alluvial lands of the upper Sacramento vslley to s depth of from one to twenty teet with an unproductive debris, thereby destroying many millions of dollars in property, and rendering desolste the homes of hnndreds of sctnal settlers.

Second—We would further represent thst at this time, from the immensely improved appliances in use tor said hydraulic mining, and the construction of immense reservoirs and numerous ditches rendering water for such mining purposes cheap, hundreds of miles of gravel silt and beds are now heing snd will be washed down upon our valleys lhst heretofore would not pay for mining. In fact, this process ot mining is yet in its infancy, having been in operation but about fifteen years. It is thought by those competent to judge that in the next twenty years it will increase manifold.

Third—We would further respectfully represent that most of the above named streams have already been filled to their highest banks with grsvel, ssnd and mountain debris, and that all the cereal-producing lands in the upper portion of these valleys are slready destroyed, and that many of our besntitul cities snd towns are almost annually inundated; that our Capital city and magnificent Stste House sre threstened with speedy destruction, snd that unless the threatening danger is speedily averted the most inviting and productive valleys on the continent will he rendered wholly uninhshitable.

Fourth—We would further represent that upon the Yuba river there have alresdy been destroyed and abandoned twenty-four sections ot land, which to day in its primitive condition would be worth more thsn $2,000,000; thirty-six sections on Bear river, worth $1,500,000; sixteen sections on Sacrsmenio river, worth $750,000; eight sections on Festher river, $500,000; ten on Americsn river, worth $600,000; twenty-two on other smaller streams, $1,000,000; total, $6,350,000. This is a destruction ot lands alone; the improvements that have been destroyed and the personal property that has been driven away from those lands, would smount to as much more, to ssy nothing of the depreciation of sdjacent property, and the general relardation of the prosperity snd business enterprise of onr State.

Fifth—We would further represent thst onr farmers in the locslity of these stresms have for a numher of years past been building and constructing a succession of levees and emhsnkments along the msrgin of the low lands adjacent to those streams at a cost of more than two million dollsrs, and that the inhabitants ot Sacramento have filled in and raised the husiness portion of said city to a hight of fitteen teet, and have surronnded the entire city with an embankment of the same hight. This work coat more than one million dollars. That the city of Marysville has expended hundreds of thoussnds of dollars in surrounding herself with a series of emhsnkments, notwithstanding which, less than twelve months ago, she wsa inundated, and suffered the loss of more than a million of dollsrs, and to-day the bed of the Ynba river is st a higher elevation than her streets, and its wsters are kept off them only by a narrow embankment of earth; and that other towns and villages have already and sre yet expending vast snms of money in resisting the encroachments of the water and debris; and that the inhabitants of the above cities, towns, villages and locslities have been and are now taxed to their utmost tension, hopiug to preserve to themselves and families that portion of our villages not yet entirely and irrevocsbly destroyed. The result of all their efforts has been temporsry, precarious and insecure protection, sn exhausted treasury, and total destruction in the nesr futnre. Experience has taught them, snd demonstrated most clesrly that they csnnot remove the debris from the rivers and water courses and raise embankments ss tast as the process of hydranlic mining fills them np. They find themselves helpless, and, without sid, csnnot much longer escape destruction.

Sixth—We would sill further represent that onr navigable rivers, the Sacramento and the Feather, upon which we are dependent for cheap fares and freights, are ahout destroyed—so much so that they can only be used in high stages of water, thns depriving ua of the highways furnished by nature, which are indispensable to our proaperiiy, and forcing us to adopt more costly means of transportation.

Seventh—We would further represent to your honorable body that the bay of San Francisco, the finest harbor in the world, is menaced. T. J. Arnold, engineer of the State Board of Hsrbor Commissioners, has estimsted thst debris is being washed into the bay in snfficient quantity to cover annnslly one sqnare mile to a depth of forty-one feet, and that it will take hut fifteen years to fill Snisun bay, and but thirty-one years to complete the destruction of San Pablo hay, after which the bsy of San Francisco proper is the only receptscle left for the entire debris washed from the mines.

The sbove estimates are founded npon the discharge ot debris that is actually now occurring. When we consider the wonderful improvements alresdy made and likely yet to be made in the process of hydranlic mining, we realize that the mountains are literally moving down into our valleys, rivers and bsys. Wherefore yonr memorialists pray that the foregoing statement ot facts may receive at your hands that attention its importance demands. Believing that no one industry ahould he fostered to the utter annihilation of other and psrsmount interesls, therefore be it

Resolved, By the Assembly, the Senate concurring First, that our Senators in Congress are instructed and our Representatives requested to place this memorial before Congress and to press the matters therein mentioned respectfully upon their attention.

Resolved, Secoud, that our Senators he instructed and our Representatives requested to favor the amendment of the present laws so that no mineral lands shall he disposed of by Congress for the purpose of hydraulic mining, only upon such conditions as shall prevent injury and damage to the valley lands, rivers and bays of our State.

Resolved, Third, That our Senators be instructed and our Representatives requested to urge upon Congress the adoption of such measures and the passage of such laws as shall prevent the destruction of our rivers and bays, and keep them open to that free navigation which is indispensable to our prosperity as a State.

Resolved, Fourth, That our Senators be instructed and our Representatives requested to urge upon Congress the propriety of sending to this coast a competent engineer for the purpose of collecting information as to the extent of hydraulic mining, and the amount of damage done and likely to be done thereby to our valley lands, rivers and bays, and obtain such other information as may be pertinent to the subject, for the purpose of laying the same before Congress at a subsequent session.

Resolved, Fifth, that his Excellency Governor Irwin he respectfully requested to forward without delay a copy of this memorial and these resolutions to each of our Senators and Representatives in Congress.

Csrpenter—I move the reference of this memorial to the Committees on Mining and Agriculture, and that, for the purpose of its considerstion, they be made and constituted a sclect committee.

Berry sccouded the motion, which was adopted.

Wine and Brandy.—The press dispstches from Washington, dated Jsn. 10th, bring an sbstrsct of a memorial presented in the Senate by Mr. Sargent, setting forth various fscts in regard to the culture of the grapevine snd the mannfscture of brandy, snd asking relief. Referred to the Committee on Finsnce. In presenting the memorials, Mr. Sargent said that, in France, 1,500,000,000 gallons ot wine were prodnced annually, valued at $300,000,000. Five million people were engaged in grape culture, and it had been stated that two vintages paid the indemnity exscted from France by Germany. California had about the same area of lsnd aa France and one-half of it was suitable tor grape culture; at present there were 30,000,000 vines in the State. He staled that there was a prejudice against Califoruia wine, and frequently a higher price was paid for an interior foreign srticle. The resnlt was that grapes in thst State was frequently fed to hogs, and the only remedy to be applied at present was a relsxation of rules in reference to the tsxation of hrandy. The memorialists desire that there shonld be a species ol Government wareho lacs provided, in which wine conld he stored and tax psid to the Government at the time the wine or brandy went to market. The Government now paid hounties to fishermen, discriminated in the tariff in favor of ship building, etc., to all of which he had no objection, but he hoped thst the same policy would be extended to the interest of California. He hoped the matter would be considered hy the Finance Committee, for though he knew that no bill in regard to the subject conld originate in the Senate, the matter could come np on a revenue bill from the Honae, snd he would then ask to be heard further on the subject.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Spectal Dispatch, Dated Washington, D. C., Jan 11th, 1876.

For Week Ending December 28th, 1875.*

Padlock.—Geo. R. Cutbirth, S. F., Cal.

Boots and Shoes.—William Biddle, Corvallis, Oregon.

Process of Leveling Land.—Thomas R. Lowe, Centerville, Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

"Faith and Confidence"

Livermore, Oct. 1st, 1875.

Messrs. Dewey & Co., Patent Solicitors: *Gentlemen*—Yours of the 29th ult. containing my patent to Elevated R. R. duly received, and I hereby return my sincere thanks to the Mining and Scientific Press Patent Agency for your promptness and honesty in regard to our business connections. I have received a flood of circulars from Eastern firms, desiring to deal with me, but I have declined any communication with them and prefer, as soon as circumstances will permit, to negotiate with and patronize a home institution; one in which I have faith and confidence—Dewey & Co.

Again thanking you for your promptness in securing my patent, I remain, obedientiy yours,

Wm. H. Harrison.

Subscribers are requested to examine the printed address on their papers. If mistakes occur *at any time* please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4j176.

Give Your Full Address when you communicate on business to this office, especially in returning newspapers. The fact that your name is on our subscription list is of no assistance to us. Without sending your post office address we should have to look over thousands ofnames to find yours.

The Scandinavian and German Immigration and Employment Office,

610 Merchant Street, near City Hall, S. F.

Since July, 1875, consolidated with the old California Labor Exchange, established in 1868. Located in the business center of San Francisco, with agents in the East and the mother countries of Europe, and mastering all the principal European languages, we have unsurpassed facilities for complying with any demand on us for male and female help in any capacity and of any nationality, at reasonable terms. A lady attends to the female department. Scandinavian, German, French and American help our specialty. We can furnish farmers with any number of Scandinavian and German help, if timely notice is given. Hotels and private families supplied with French and German waiters. When female help is wanted in the country, the remittance of the passage money in advance is indispensable. Your orders will be filled promptly and conscientiously if addressed to

V. de BRETTEVILLE & CO.,

[P. O. Box 1436.] San Francisco, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, January 12, 1876.

The general tone of trads during the last week has been quiet. The very bad condition of the roads restrains shipments and holds couutry purchasers at home.

During the week thers has been a trifling fluctuation in the foreign quotations for Wheat, but thsre appears to be no noticsable effect on the local trads. There is now about 5 cents difference generally betwsen buyers' and sellers' views.

The course of the Liverpool quetation to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices.

	Average.		Club.	
Thursday	10s 4d@10s	9d	10s 10d@11s	2d
Friday	10s 5d@10s	6d	10s 8d@11s	—
Saturday	10s 2d@10s	6d	10s 8d@11s	2d
Monday	10s 2d@10s	6d	10s 8d@11s	—
Tuesday	10s 3d@10s	6d	10s 8d@11s	—
Wednesday	10s 3d@10s	8d	10s 8d@11s	—

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	13s 10d@14s 1d	14s —@15s—
1875	9s 7d@10s —	10s —@10s 6d
1876	10s 3d@10s 8d	10s 8d@11s—

There was postsd upon ths bulletin of ths Produce Exchange to-day the following partial showing of the amount of Grain still on hand in this State:

Account of Stock, January 1st.

The Directors are unable to give as yet a complets account of the stock of Breadstuffs and Feed Grain in the State, owing to the slownsss with which returns come in. But to satisfy the anxisty of members, they prssent hslow the footings of what they have received. These figurss will be somewhat increased, and when completed will be printed in dstail. Account of stock so far rscsived is as follows:

Flour, bbls	57,786 =	5,778 tons.
Wheat, ctls	2,690,858 =	134,542 tons.
Barley, ctls	782,415 =	39,122 tons.
Oats, ctls	41,257 =	2,212 tons.

W. H. WALKER, Sec'y.

There still remain a number of points to hear from, and it is expected that the stock of Wheat will reach the even three million centals, and Barley one million centals.

The announcement of the amount of Grain on hand has stiffened shipmasters' views a little, and freight rates asked are now quotable at 47s to 50s, but there is little doing.

It appears from the figurss of the imports of Wheat into the United Kingdom that the receipts have considerably exceeded the amounts of the last two years. From January 1st to December 1st, 1875, the British imports of Wheat were 47,423,033 ctls. During the same time of 1874 they were 39,108,366 ctls, and in 1873, 39,243,366 ctls. The excess of 1875 may be rightly supposed to have exerted its influence upon the low range of quotations which we have been receiving.

Concerning the European Grain trade the *Mark Lane Express* review telegraphed on January 11th is as follows:

"In the Parls market the reports of the reappearance of frost arrested the downward tendency of prices, but the trade is stagnant; while in several provincial markets the quotations are a shilling lower. Some places in Holland, Belgium and Germany have been in sympathy, but nowhsre has thsre been a material reduction. St. Petsrsburg is unchanged, and Odessa is closed; so shipments from both places must cease for some time. In Adelalde, Australia, whence we were led to expect large shipments, prices have suddenly risen five shillings per quarter, and there is great difficulty in securing wholesale quantities."

In domestic prodnce the trade has been without special features. The following table shows the bay receipts of domestic produce for the week ending at noon to-day, as compared with the receipts of the week before:

Receipts of Domestic Produce.

Articles.	Week Ending January 5.	Week Endino January 12.
Flonr, quarter sacks	41,210	7,244
Wheat, centals	83,635	91,856
Barlsy, centals	5,478	9,839
Beans, sacks	349	1,143
Potatoes, sacks	2,456	13,631
Onlons, sacks	791	923
Wool, bales	152	173
Hops, bales	—-	115
Hay, bales	5,928	1,767

Bags—In Grain Bags there is no change in the quotations. There has been a little speculative trade. We hear that large amounts are freely offered for June delivery at 10¾c, while others hold them at 11@11½c. We note a sale of 1,000,000 hand sewed Wheat Bags at 10@10¼c, long time.

Barley—Barlcy docs not meet great trade and general prices are unchanged. We note the following sales: 636 sks Coast Chevalicr, $1.17½; 400 do, $1.15; 104 sks specially choice Chevaller, $1.55; 1,500 sks Coast Feed, $1.15@1.20; 3,000 ctls choice Bay Brewing on cars for the East, $1.32½; 300 sks Coast Feed, old crop, $1.16; 600 sks choice Bay for the East, $1.35; 300 sks fair Bay Brewing, $1.28; 3,000 do good do, $1.30; 3,000 do choice do, $1.35.

Beans—Beans are unchanged generally. Pink Beans are selling a little lower.

Corn—Corn ranges at former quotations. We nots sales as follows: 500 sks large White and Yellow, fair quality, $1; 300 sks choice Yellow, $1.05; 500 sks small round Yellow, $1.25.

Dairy Produce—Butter is quotable 2½c lower on all grades. Eggs are 10@12½c lower. Cheese is one polnt lower for new make.

Feed—Hay is more plentiful and is quotable $1 lower per ton. Oats are very scarce and the price had advanced for fine Oats to $2.25 per ctl. We note the following sales of Oats: 200 sks choice Feed, $2.15. Choice Oregon wsre in one instance held for $2.50 per ctl, while a small lot of 118 sks choice Petaluma brought $1.30. Sales of 240 sks Coast, $2.17½; 500 do Petaluma, In three lots, $2.12½@2.25; 200 sks choice Oregon, $2.25; 200 sks good Feed, $2.17½.

Fresh Meat—First quality Besf is quoted 1c hlghsr for best selections. There is some spring Lamb arriving which is quotabls at 15c ℔ lb wholesals.

Smoked Meats—Eastern Hams have arrived in good quantities and prices are easier.

Fruit—There is nothing new to note.

Hops—Hops are dull and ars selling at buysrs' prices. There have been receipts of Washington Territory Hops which have sold at 10@10½c. Thcre is littls quotable above 12c. One sale is noted of 15 bales choics Napa to a brewer for 15c. Emmstt Wslls' Circular describes the New York trade as follows:

"A largs business has besn done for a holiday week. The receipts foot up nearly 3,000 hales, whils over 1,200 bales have been shippcd to England. Prices are strong; a fraction over 15c has bsen paid for extra choice lots, but we hardly fesl warrantsd in advancing our quotations at thls tims, though 16c may be reached bsfors the issue of our nsxt report, as ths market today closes vsry strong and shows indications of an early advance. Our rsminder in last week's Circular of a growing scarcity of fine Hops has set shippers to tbinking, and anything now offersd good enough for shipping is rsady to takan at full prices. California Hops are quoted at 17@20c.

Potatoes—Potatoes are arriving in large quantities, but prices are well maintained and even advanced for fine selection. Sales are roported of 600 sks choics Petaluma at $1.55@1.65 psr ctl; 300 sks Sacramento River, $1.15; 100 sks Pstaluma, $1.50; 400 sks Petaluma and Tomales, $1.60@1.65. The merket fluctuated considerably during the week, but $1 50 is an outside price now for fine stock from favorite localities.

Onions—Onions are unchanged. We note sales of 100 sks Union City, $1.05; 500 sks do, $1.10.

Poultry and Game—There has been an excitsd time in Chickens. During the last days of last week $10 per dozeu was paid for Hens. The supply has now increased, but prices are a little improvsd ovsr our last. Venison is now unlawful food. Antelopes are arriving from beyond the mountains.

Seeds—There is no notable change in the Seed market.

Wheat—There has been quits a range in prices during the week. Sales are reported as low as $1.83¾, and as high as $1.97½ psr ctl for a fancy extrems price. We note the following sales: 75 tons Milling at $1.97½; 150 tons do at $1.92½; 200 tons Shipping at $1.85; 4,000 sks Shipping at $1.82½; 800 sks Milling at $1.87½; 1,200 sks Oregon at $1.90; 2,000 ctls Shipping at $1.85; 8,000 do, to be delivsred at Vallejo, $1.82½@1.85; 800 sks good, $1.85; 500 do do, $1.87½.

Wool—There is nothing to note in Wool this week.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., January 12, 1876.

BEANS.

Bayo, ℔ ctl — @2 75
Butter 1 25@ —
Pea — @ 1 90
Pink 1 90@ 2 50
Sm'l wh 1 70@ 1 87

BROOM CORN.

Common, ℔ lb 2 @ 3
Choice, do 4 @ 5

COTTON.

Cotton, ℔ lb 15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb 27½@ 32½
Point Reyes — @ 35
Firkin 30 @ 32½
W st'n Reserve 17 @ 22½
New York 21½@ 30

CHEESE.

Cheese, Cal., new 14 @ 16
do Old 14 @ 17
Eastern 16 @ 20

EGGS.

Cal. fresh ℔ doz — @ 50
Ducks' — @ 45
Oregon 40 @ 45

FEED.

Bran, per ton — @22 50
Corn Meal 29 00 @30 00
Hay 15 00 @18 00
Middlings 32 50 @— —
Oil cake meal — @37 50
Straw, ℔ bale — 65 @— 75

FLOUR.

Extra ℔ bbl 5 75 @6 12½
Superfine 4 75 @5 00

FRESH MEAT

Beef 1st quality lb. 9 @ 10
Second do 6 @ 8
Third do 5½@ 6
Spring Lamb — @ 15
Mutton 5 @ 6
Pork, undreeced 6¾@ 7
do, dreeed — @ 9¼
Veal 5 @ 7
Milk Calves 9 @ 10

GRAIN, ETC.

Barley, feed ctl 1 20 @ 1 25
do brewing 1 30 @ 1 35
Chevalier 1 30 @ 1 50
Corn, White 1 05 @ 1 10
do Yellow 1 05 @ 1 15
Oats 2 00 @ 2 25
Rye 1 50 @ 1 55
Wheat, shipping 1 90 @— —
do milling 1 95 @— —

HIDES.

Hides, dry 15 @ 16½
do wet salted 7 @ 7½

HONEY, ETC.

Beeswax, per lb 25 @ 27½
Honey in comb 18 @ 22½
do Strained 6 @ 12½

HOPS.

New crop 10 @ 15

NUTS—Jobbing.

Alm'de h'rd sh'l lb 8 @ 10
do, soft sh'l 16 @ 20
Brazil do 14 @ 16
Cal. Walnuts 7 @ 11
Chile Walnuts 11 @ 12½
Peanuts per lb 8 @ 9
Filberts 15 @ 16
Pecanuts 17 @ 18

ONIONS.

Union City ctl — @ 1 12½
Stockt n 50 @ 1 00

POTATOES.

Petaluma 1 40 @ 1 50
Salt Lake 1 65 @ 1 70
Sac River 1 00 @ 1 25
Humboldt 1 25 @ 1 50
Early Rose — @ 2 25
Sweet — @ 3 00

POULTRY & GAME

Hens, per dz 7 50 @8 00
Roosters 6 50 @7 50
Broilers 4 50 @5 50
Ducks, tame, dz. 8 00 @9 00
do Mallard 2 50 @3 50
do Canvass 3 50 @4 50
Geese, per pair 2 50 @4 00
do Wild Gray 3 00 @4 00
do White 1 50 @2 00
Turkeys, Live, lb 17 @ 18
do Dressed 20 @ 22
Quail, per doz 1 00 @1 75
Snipe, Eng., doz. 1 50 @2 00
Doves, per dozen 50 @ 75
Rabbits 1 00 @1 25
Hare, per doz 2 00 @3 00

PROVISIONS.

Cal. Bacon, L'gbt 15 @ 15½
do Medium 14 @ 14½
do Heavy 14 @ —
Lard 14 @ 17
Cal. Smoked Beef 9 @ 10
Eastern do — @ 12½
East'n Should's — @ 10
Hams, Cal. 13 @ 14½
do Whittakere 20 @ 23
do Armour 18 @ 20
do Worster's. — @ 21

SEEDS.

Alfalfa, Chile lb. 8½@ 11½
do California. 11 @ 14
Canary — @ 20
Clover Red — @ 25
do White 50 @ 55
Cotton 6 @ 10
Flaxeed — @ 3½
Hemp 12½@ —
Italian Rye Grass 25 @ 30
Perennia do 20 @ 30
Millet 10 @ 12
Mustard, white 3 @ 3½
do. Brown 3 @ 3½
Rape 9 @ 11
Ky. Blue Grass 33 @ —
do 2d quality 29 @ —
do 3d quality — @ —
Sweet V Grass 75 @1 00
Orchard do 30 @ 35
Red Top do 25 @ 30
Hungarian do 8 @ 12
Lawn do 50 @ —
Mesquit do 15 @ —
Timothy 11 @ 13

TALLOW.

Crude 6¾@ 7
Refined 9 @ 9½

WOOL, ETC.

FALL—
Seedy 11 @ 12½
Choice free 12 @ 15
Burry 9 @ 11
Oregon — @ —

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by CHARLES SUTRO & CO.]

SAN FRANCISCO, January 12, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 88¾ to 89¼.

GOLD in N. Y. 112⅞.

GOLD BARS, 830@890. SILVER BARS, 7½ and 8 per cent. discount.

EXCHANGE on N.Y., 60-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, three to five per cent. discount.

LONDON — Consols, 93 to 93⅛; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per lb, 72½o@75c.

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., January 12, 1876.

BAGS.

Eng. Stand Wbt 10 @10½
Neville & Co'e
Hand Sewed 10 @10½
22x36 2½@10
24x36 11 @11½
24x40 12 @12½
Machins do 24x49 12 @12½
" " 23x40 11¼@11½
" " 22x40 11 @11¼
" " 22x36 9½ @10
Flour Sacks ½e 9½@11
" ¼e 6¼@ 7
" ⅛s 4½@ 5
Hessian 60-in 12½@14½
do 45-in 8½@ 9
do 40-in 7½@ 8
Wool Sacks, 3½ lbs. 45 @50
do 4 " 50 @52½
Stand. Gunniee — @16
eingle seam do — @—
Bean Bage 7½@ 8
Barley Bags 24x36 11¾@12
do 23x40 11½@12
do 24x40 12 @12½
Oat Bags, 24x40 12 @12½
do 28x36 — @13½
Detrick's "E. W." 9½ @10
do "E @9½

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans 2 75 @ 3 00
do Table do 3 75 @ 4 25
Jams & Jellies 4 25 @ —
Pickles ½ gl — @ 3 50
Sardines, qr boxl 65 @ 1 90
do hf boxes 3 00 @— —

COAL—Jobbing.

Anetralian, ℔ ton — @ 9 00
Oooe Bay 8 00 @10 00
Bellingham Bay — @ 8 50
Seattle 9 25 @10 50
Oumberl'd — 16 @— 18
Mt. Diablo 6 25 @8 25
Lehigh — @22 00
Liverpool 10 00 @11 00
West Hartley — @14 00
Sectch 9 00 @11 50
Scranton 13 00 @16 00
Vancouver's Isl. 10 50 @13 00
Charcoal, ℔ sk 75 @ —
Coke, ℔ bbl — @ 60

COFFEE.

Sandwich Island — @ 21½
Costa Rica per lb 22½@ —
Gnatemela — @ 22½
Jave @ 30
Manilla — @ 21½
Ground in cs 25 @ —
Chicory 27 @ —

FISH.

Sac. Dry Cod, new 4 @ 4½
cases 6 @ 6½
do boneless 8½@ 10
Eastern Cod 7½@ 8
Salmon in bble 8 50 @9 00
do ½ bblel 50 @5 00
do 2lb cane 2 25 @2 30
do 1lb cane 1 25 @1 30
do Cod. R. ½b 5 00 @5 50
Pick. Cod, bble 22 00 @ —
do ½ bblell 00 @ —
Mack'l, No. 1, ½ble 9 00 @11 00
" Extra — @12 00
" in kite 1 90 @2 00
" Ex mese 3 00 @3 50
" Ex mess. ½bs— @12 00
Pic'd Herr'g, bx 3 00 @ 3 50
Bos'n Sm'k'd Her'g 40 @ 50

HARDWARE.

Amoskeag handled Axes $18@17; do unhendled do $13 @14—less 50c in 5 case lots.
Amoskeag Hatchets, Shingling, No 1, $7.25; No. 2, $8; No. 3, $8.25. Do do, Claw No. 1, $7.75; No. 2, 8.50; No. 3, $9.25—less 10 per cent.
Locks, Yale Lock Mf'g Co., discount 33⅓ per cent. from net.
Planes, Ohio Tool Co., discount 40 per cent. from list.
Am. Jack Co's Cut Tacks 72½ per cent. discount and 5 per cent. extra. Finishing and Clout Nails, 50 per cent. off list; 3d floe Nails $7.00 per keg. Ohio Bolt Co'e Loose Joint Butts 50 per cent. do Fast, 35 per cent off list.
Machine Bolts, 20@35 off.
Square Nuts, 2@3c off list.
Hexagon Nuts 2@3c off list.
Wrought Iron Washers, 2@3c off list.
Lag Screws, 15 per cent off list.

LIME, ETC.

Lime, S'ta Cruz, ℔ bbl 2 00@ 2 25
Cement, Rosendale, do 2 75@ 3 50
do Portland do 4 75@ 5 50
Plaster, Golden Gate Mills 3 00@ 3 25
Land Plaster, ℔ ton 10 00@12 50

MISCELLANEOUS.

Pulu — 7 @ 9

NAILS.

Assorted size, lb. 3 75 @4 00

OILS.

Pacific Glue Co
Neat F't No. 1 1 00 @ 90
Pure — @ —
Castor Oil, No. 1 — @1 25
Baker's A A — @1 40
Cocoanut — @1 50
Olive Plagniol 5 50 @5 75
do Poseel 4 75 @5 00
Palm lb 9 @ —
Linseed, raw 80 @ —
do boiled — @ 75
Cbina nut in cs 70 @ 75
Sperm, crude — @1 40
do bleached 1 90 @2 25
Coast Whalee 47½@ 50
Polar, refined — @ —
Lard — @ —
Oleophine — @ 28
Devoe's Bril't — @ —
Long Island — @ 25
Eureka — @ 27
Devoe'e Petro'm 25 @ 27½
Barrel kerosene 23 @ 25
Olive — @3 50
Downer Keroee'e 40 @ —
Gas Light Oil 23 @ 25

PAINTS.

Pure White Lead 9¾ @10¼
Whiting — @ 2
Putty 4 @ 5¾
Chalk — @ 2½
Parie White 2¾@ —
Ochre 3 @ 5
Venetian Red 3½@ 5
Red Lead 10 @ 11
Litharge 10 @ 11
Eng. Vermillion —@1 25
Averill Chemical Paint, per gal.
White & tints. 2 00 @2 40
Green, Blue & Ch Yellow 3 00 @3 50
Light Red 3 00 @3 50
Metallic Roof. 1 30 @1 60

RICE.

Cbina No. 1 ...6 00 @6 25
Hawaiian, ℔ lb — @ 8
Carolina, ℔ lb 10 @

SALT.

Oal. Bay, per ton 10 00@14 00
do Common 5 00@ 7 00
Carmen Island 12 00@15 00
Liverpool fine 22 50@25 00

SOAP.

Castile ℔ lb 10 @ 11¼
Common brands 4½@ 6
Fancy do 7 @ 10

SPICES.

Olovee ℔ lb 45 @ 47½
Caesia 23½@ 26½
Citron 28 @ 30
Nutmeg 95 @ 97½
Whole Pepper 14½@ 17½
Pimento 16 @ 17
Gr'nd Allsp pice @1 12½
do Cassia do @1 50
do Clovee do @1 50
do Mustard do @1 20
do Ginger do @1 00
do Pepper do @1 00
do Mace do @2 00
Bowen's Pure Ground ℔ lb — @ 50

SUGAR, ETC.

Cal. Cube per lb 12¼@ —
Circle A crusned — @ 12¼
Powdered — @ 12¼
Fine crushed — @ 12¼
Granulated — @ 11½
Golden C — @ 10½
Hawaiian 9 @ 10
Cal. Syrup in kge — @ 70
Hawaiian Molasses 25 @ 27½

TEA.

Oolong, Canton, lb 19 @ 25
do Amoy 28 @ 50
do Formoea 40 @ 80
Imperial, Canton 25 @ 40
do Pingsuey 45 @ 80
do Moyune 60 @1 00
Gunpo'der, Cant. 75 @1 00
do Pingsuey 50 @ 90
do Moyune 65 @1 25
Y'ng Hy., Canton 28 @ 40
do Pingsuey 40 @ 70
do Moyune 65 @ 85
Japan, ½ chests, bulk — @20 00
Japan, ½ cheste, bulk 30 @ 75
Japan, lacquered bxs, 1½ and 5 lbs 45 @ 67
Japan do, 3 lb bxs 45 @ 90
do pl'n bx, 4½ lb 35 @ 65
do ½ & l ℔ paper 30 @ 55

TOBACCO—Jobbing.

Bright Navys 50 @ 65
Dark do 50 @ 55
Paces Tin Foil — @ 75
Gregory 70 @ —
Dw f Twist 65 @ 75
Light Preseed 70 @ 80
Hard do 50 @ 60
Conn. Wrap'r 40 @ 60
Penn. Wrapper 20 @ 45
Ohio do 15 @ 20
Virgi'a Smok'g 45 @1 00
Fine cut chewing, buc'te, ℔ lb .75 @
Banner fine cut — @9 00
Cut Smoking 37 @1 00

TURPENTINE.

Eastern 51½@55

LEATHER.

[WHOLESALE.]

WEDNESDAY M., January 12, 1876.

Olty Tanned Leather, ℔ lb 22@29
Santa Cruz Leather, ℔ lb 22@28
Oonntry Leather, ℔ lb 22@29
Stockton Leather, ℔ lb 25@29
Jodot, 8 Kil., per doz $50 00@ 54 00
Jodot, 11 to 13 Kil., per doz 68 00@ 79 00
Jodot 14 to 19 Kil., per doz 82 00@94 00
Jodot, second choice, 11 to 16 Kil. ℔ doz 57 00@ 74 00
Cornellian, 12 to 16 Ko 57 00@ 67 00
Cornellian Females, 12 to 13 63 00@ 67 00
Cornellian Females, 14 to 16 Kil 71 00@ 76 50
Simon Ulimo Females, 12 to 13, Kil 58 00@ 62 00
Simon Ulimo Females, 14 to 15, Kil 66 00@ 70 00
Simon Ulimo Females, 16 to 17, Kil 72 00@ 74 00
Simon, 18 Kil., ℔ doz 61 00@ 63 00
Simon, 20 Kil. ℔ doz 65 00@ 67 00
Simon, 24 Kil. ℔ doz 72 00@ 74 00
Robert Calf, 7 and 9 Kil 35 00@ 40 00
French Kipe, ℔ lb 1 00@ 1 35
California Kip, ℔ doz 40 00@ 60 00
French Sheep, all colors, ℔ doz 8 00@ 15 00
Eastern Calf for Backe, ℔ lb 1 00@ 1 25
Sheep Roane for Topping, all colors, ℔ doz 9 00@ 13 00
Sheep Roane for Lininge, ℔ doz 5 50@ 10 50
California Russett Sheep Linings 1 75@ 4 50
Beet Jodot Calf Boot Legs, ℔ pair 5 00@ 5 25
Good French Calf Boot Lege, ℔ pair 4 00@ 4 75
French Calf Boot Lege, ℔ pair 4 00@ —
Harness Leather, ℔ lb 24@ 32½
Fair Bridle Leather, ℔ doz 48 00@ 72 —
Skirting Leather, ℔ lb 33@ 37½
Welt Leather, ℔ doz 30 00@ 50 00
Buff Leather, ℔ foot 17@ ½
Wax Side Leather, ℔ foot 17@

RETAIL GROCERIES, ETC.

WEDNESDAY M., January 12, 1876.

Butter, Cal. ch'ice 35 @ 45
Cheese, lb 18 @ 30
Eastern 25 @ 30
Lard, Cal., lb — @ 18
Eastern 20 @ 25
Flour, ex. fam. bl 6 25 @6 50
Corn Meal, lb 2½@ 3
Sugar, wh. crsb'd 12½@ 13
do lt. brown, lb 8 @ 9
Coffee, green, lb 23 @ 35
Tea, fine blk, 50, 65, 75 @1 00
Tea, finest Jap, 55, 75, 90 @1 00
Candles, Admant'e 15 @ 25
Soap, Cal., lb 7 @ 10
Rice, lb 5 @ 12½
Yeast Powders, 1 50 @2 00
Bowen Bro. large can per doz 5 00 @— —
Small, do 2 50 @ —
Bowen's Cream Tartar lb — @ 75
Can'd Oysters, dz. 2 00 @3 50
Syrup, S. F. Gel'n. 75 @1 00
Dried Apples 10 @ 12½
Dr'd Ger. Prunes 12½@ 14
Pe'd Figs, Cal 9 @ 10
Dr'd Peaches 11 @ 15
Oils, Kerosene 30 @ 40
Wines, Old Port. 3 50 @5 00
do Fr. Claret 1 00 @2 50
do Cal., dz. bot. 3 00 @4 50
Whisky, O. B, gal. 3 50 @5 00
Fr. Brandy 4 00 @8 00

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., January 12, 1876.

POULTRY, GAME.

Chickens 50 @1 00
Hens 75 @ 88
Eggs, Hens 55 @ 60
do Ducks' — @ 60
do Farallones — @ —
Turkeys, ℔ lb 15 @ 25
Ducks, each 1 00 @1 25
Geese, wild, pair — @ —
Tame, ℔ pair 3 00 @4 00
Snipe, ℔ doz — @ —
do English — @3 00
Quail, per dozen — @2 00
Prairie Ch'k e,pr — @ —
Hares, each 25 @ 35
Rabbits, each 15 @ —
Squirrels, do — @ 15
Beef, tend, ℔ lb 15 @ 18
Corned, ℔ lb 8 @ 10
Smoked, ℔ lb — @ 15
Porter House St'k 15 @ 20
Sirloin do 12 @ 15
Round do 8 @ 10
Pork, rib, etc., lb 12 @ 12½
Chops, do, ℔ lb 15 @ —
Veal, ℔ lb 10 @ 15
Cutlet, do 15 @ 25
Mutton-chope, lb 10 @ 12
Leg Mutton, ℔ lb 8 @ 10
Lamb, ℔ lb 20 @ 25
Antelope 15 @ 20
Tongues, beef 60 @ 75
do, do, emoked 75 @1 00
Tongues, pig, ℔ lb 12½@ —
Bacon, Cal., ℔ lb 16 @ 20

FISH, MEATS, ETC.

Flounder, ℔ lb 15 @ 35
Salmon, ℔ lb 25 @ 35
do Smoked — @ 8
Rock Cod, ℔ lb 15 @ —
Cod Fish, lb 12 @ 15
Perch, lb 15 @ —
Lake Big. Trout — @ 30
Smelts, ℔ lb 10 @ 12½
Herring, Sm'kd. 75 @ —
do fresh — @ 5
Tomcod, ℔ lb — @ 20
Terrapin, ℔ doz — @ —
Mackerel, p'k, ea 12½@ —
Fresh, do lb — @ —
Sea Bass, ℔ lb — @ —
Halibut — @ 75
Sturgeon, ℔ lb 5 @ 6
Oysters, ℔ 100 75 @ —
Obesp, ℔ doz 50 @ 75
Clams ℔ 100 — @ 50
Mussels do — @ 25
Turbot — @ 75
Crabs ℔ doz 1 00 @1 25
do Soft Shell 40 @ 50
Shrimps 8 @ 10
Sardines — @ 15
Anchovies — @ 8
Solce — @ 40
Young Trout, bay — @ —
Skate, each 15 @ 25
Whitebait, ℔ lb — @ 15
Crawfish ℔ lb 8 @ 10
Green Turtle — @ —

FRUITS, VEGETABLES.

Apples, pr lb 5 @ 8
Peers, per lb 5 @ 12½
Apricots, lb — @ —
Peaches, lb — @ 25
Plums — @ —
Pine Apples, each 50 @1 00
Lady Apples — @ 25
Grapes — @ 25
Bananas, ℔ doz 75 @1 00
Muskmelons — @ —
Watermelone — @ —
Blackberries — @ —
Raspberries — @ 25
Cal. Walnuts, lb — @ 25
Oranher'es, Org., do Eastern qt — @ —
Huckleberries — @ 25
Strawberries — @ —
Raepherries, lb — @ —
Gooseberries — @ —
Currants — @ —
Oherriee, ℔ lb — @ —
Nectarines — @ —
Pomegranates 6 @ 10
Oranges, ℔ doz 50 @1 00
Lemone 75 @ —
Limee, per doz 20 @ 25
Figs, dried Cal 12½@ 25
Figs, Smyrna, lb 25 @ 35
Asparagus, lb 50 @ 75
Artiehokes, doz 75 @1 25
do Jerusalem — @ 8
Beets, ℔ doz 20 @ 25
Harness Leather, ℔ lb 24@ 32½
Fair Bridle Leather, ℔ doz 48 00@ 72 —
Skirting Leather, ℔ lb 33@ 37½
Welt Leather, ℔ doz 30 00@ 50 00
Buff Leather, ℔ foot 17@ ½
Wax Side Leather, ℔ foot 17@

Broccoli, each 10 @ 15
Cauliflower 10 @ 15
Green Peas ℔ lb — @ —
Cabbage, per hd 10 @ 12½
Oyster Plant, bn — @ 12½
Carrots, ℔ doz — @ 25
Celery, ℔ dz 75 @1 00
Orese, ℔ doz bun 20 @ 25
Onions 3 @ 4
Turnips, ℔ doz bunche — @ 25
Brussels Sprouts 6 @ 8
Eschalots — @ 25
Dried Herbs, doz 30 @ 50
Garlic ℔ lb — @ —
Green Corn, doz — @ —
Lettuce, ℔ doz 25 @ —
Mint, ℔ bunch — @ 12½
Mushrooms, ℔ lb — @ 25
Horse radish, ℔ lb 15 @ 25
Okra, dried, ℔ lb — @ —
Pumpkins, ℔ lb 5 @ 6
Parsnips, doz — @ 25
Parsley — @ —
Pickles, fresh, ℔ lb — @ —
Radishes, doz 20 @ 25
Sage — @ 25
Marrowfat, do 2 @ 3
Hubbard, do — @ —
Mangoes, ℔ doz — @ —
Sprouts ℔ bskt — @ 12½
Beets, ℔ doz 20 @ 25
Rhubarb 10 @ 12
Potatoes, ℔ lb 2 @ 3
Green Chilies — @ 25

VEGETABLES.

Asparagus — @—
Beets — @—
Cabbage, ℔ 100 lbs 50 @62½
Carrots, per ton 8 00@10 00
Cauliflower, doz 50@75
Celery, doz 50 @75
Garlic, ℔ lb — @ 8
Green Peas — @10
Green Corn ℔ doz — @—
Sum'rSquash ℔ box — @—
Marro'fat Sq'sh, tn 6 00@8 00
Artichokes, ℔ doz — @—
String Beans, ℔ lb — @ —
Lima Beans — @—
Parsnips — @—
Shell Beans 2 @ 3
Peppers, green, bx. 75 @1 00
Okra 4 @ 5
Cucumbers, ℔ box 1 25@1 75
Tomatoes, box 1 00@ 1 50
Egg Plant, bx — @ —
Rhubarb — @—
Lettuce — @—
Turnips, pr ton — @—
Mushrooms, lb 8 @ 10

Hams, Cal. ℔ lb. 16 @ 20

FISH, MEATS, ETC.

Flounder, ℔ lb 15 @ 35
Salmon, ℔ lb 25 @ 35
do Smoked — @ 8
Rock Cod, ℔ lb 15 @ —
Cod Fish, lb 12 @ 15
Perch, lb 15 @ —
Lake Big. Trout — @ 30
Smelts, ℔ lb 10 @ 12½
Herring, Sm'kd. 75 @ —
do fresh — @ 5
Tomcod, ℔ lb — @ 20
Terrapin, ℔ doz — @ —
Mackerel, p'k, ea 12½@ —
Fresh, do lb — @ —
Sea Bass, ℔ lb — @ —
Halibut — @ 75
Sturgeon, ℔ lb 5 @ 6
Oysters, ℔ 100 75 @ —
Obesp, ℔ doz 50 @ 75
Clams ℔ 100 — @ 50
Mussels do — @ 25
Turbot 65 @ 75
Crabs ℔ doz 1 00 @1 25
do Soft Shell 40 @ 50
Shrimps 8 @ 10
Sardines — @ 15
Anchovies — @ 8
Solce — @ 40
Young Trout, bay — @ —
Skate, each 15 @ 25
Whitebait, ℔ lb — @ 15
Crawfish ℔ lb 8 @ 10
Green Turtle — @ —

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., January 12, 1876.

FRUIT MARKET.

Oranges Mex. ℔ M 15 00@35 00
Tahiti, do — —@— —
Cal. do 15 00@40 00
Limee, Mexican, ℔ M 10 00@— —
Malaga Lemons, ℔ bx 12 00@14 00
Cal. ℔ 100 2 00@ 3 00
do Sicily ℔ b'x 12 00@14 00
Bananas, ℔ bnch 2 50@ 4 00
Cocoanute, ℔ 100 7 00 @ 9 00
Pineapplee, ℔ dz 7 00 @8 00
Apples, ℔ hox 1 00 @1 25
do Choice 2 00 @ —
Blackberries — @ —
Figs — @ —
Huckleberries — @ —
Strawber's ℔ ch — @20 00
Pomgranates — @ —
Raspberries — @ —
Currants, ℔ ch — @ —
Quinces ℔ bx — @ —
Cranberries ℔ bbl 13 00@14 00
Peacnes, ℔ bx — @ —
Pears, ℔ bx 75 @1 00
do Choice 2 00 @3 00
Crab apples, ℔ bx — @ —

DRIED FRUIT.

Apples, ℔ lb 7½@ 9
Peare, ℔ lb 8 @13
Peaches, ℔ lb 12 @13
Apricots, ℔ lb 14 @15
Plume, ℔ lb 7 @ 8
Pitted, do ℔ lb 18 @20
Raieins, imported 3 25 @3 75
Cal. Raieins 8 @ 12½
Black Figs, ℔ lb 5 @10
White, do 8 @10
Prunes 12½@17
Citron 28 @ 30
Zante Currants 9 @ 10

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ℔ M $18 00
Rough refuee, ℔ M 14 00
Rough clear, ℔ M 30 00
Rough clear refuse, M 20 00
Rustic, ℔ M 32 50
Rustic, refuse, ℔ M 24 00
Surfaced, ℔ M 30 00
Surfaced refuee, ℔ M 20 00
Flooring, ℔ M 28 00
Flooring, refuse, ℔ M 20 00
Beaded flooring, ℔ M 30 00
Beaded floor, refuse, M 25 00
Half-inch Siding, M 22 50
Half-inch siding, ref, M 16 00
Half-inch, Surfaced, M 25 00
Half-inch Surf. ref., M 18 00
Half-inch Battens, M 22 50
Pickets, rough, ℔ M 13 00
Pickets, rough, p'ntd 16 00
Pickets, fancy, p'ntd 25 00
Shingles, ℔ M 3 00

PUGET SOUND PINE —Retail Price.

Rough, ℔ M 22 50
Fencing, ℔ M 22 50
Flooring and Step, ℔ M 32 50
Flooring, narrow, ℔ M 35 00
Flooring, 2d quality, M 25 00
Latbs, ℔ M 3 50
Furring, ℔ lineal ft — —

REDWOOD—Retail.

Rough, ℔ M 22 50
Rough refuse, ℔ M 18 00
Rough Pickets, ℔ M 18 00
Rough Pickets, p'd, M 20 00
Fancy Pickets, ℔ M 30 00
Siding, ℔ M 25 00
Surfaced and Long Beaded 37 50
Flooring 35 00
Do do refuee, ℔ M 25 00
Half-inch surfaced, M 32 50
Rustic, No. 1, ℔ M 40 00
Battens, ℔ lineal foot ½
Shingles, ℔ M 3 2

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers,

No. 224 Sansome street, SAN FRANCISCO.

THE RURAL PRESS.—Glancing over the columns of a late number, we are pleased to find how much excellent reading matter it contains. It keeps a farmer posted in the latest information of real value. It is up with the times in suggestions and advice, answers to queries, etc. It tells of new trees, seeds and plants; meutlous discoveries and useful recipes. The farmer, his wife, boys, girls and help, can all read it with pleasure and profit. It fairly represents each part of the State to immigrants. It is now giving a short sketch and statistics of each county. We shall watch with interest when it gets down to Santa Barbara Co. It gives prominence to an article from our columns on the state of the crops in

Nurserymen.

[Established 1853.]

SEEDLING STOCKS and PLANTS

FOR NURSERYMEN.

Apple Seedlings, fine.....$10.00 per 1000
Pear Seedlings, fine.....$15.00 per 1000
Plum Seedlings, Miroboian, Best French stock does not Sucker.....$40.00 per 1000
Cherry Mazzard Seedlings.....$12.00 per 1000
Cherry Mahaleb Seedlings.....$15.00 per 1000
Blue Gums in Variety.....$5.00 to $10.00 per 100

Magnolia Grandiflora—all sizes—large stock.

Golden Arborvitæ.....
Heath-leaved Arborvitæ....
Cratagus Arboria.....
Lauristinus.....
Sweedish and Irish Juniper
Mediterranian Heath.....
Loquat or Japau Plum.....
} Fine Plants—Large Stock.

Oranges and Lemons, large stock, best European, Australian, and Chinese varieties, all grafted, from $12.00 to $18.00 per dozen. **Large Palms, Large Tree Ferns, Large Auricarias,** at special prices, with the usual large stock of Fruit and Ornamental Trees.

BERNARD S. FOX,
San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery St., S. F.

1865. 1875.

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	28	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	20	—	Fertille de Palican	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

ROCK'S NURSERIES,

SAN JOSE, CAL.

The attention of Nurserymen and Planters is invited to my large stock of

FRUIT TREES

Of the very best varieties for Market, Shipping and Drying. Also

GRAPEVINES, CURRANTS, GOOSEBERRIES, BLACK BERRIES AND RASPBERRIES. SHADE TREES, EVERGREENS, BLUE GUMS AND SHRUBS. GREEN HOUSE PLANTS, BEDDING PLANTS, ETC.

Send for a Catalogue.

JOHN ROCK, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,
19v8-tf Petalnma. Sonoma Co., Cal.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.

November, 1875.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

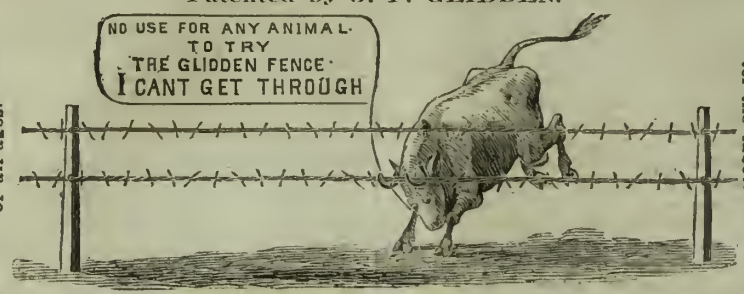
CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.



It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other good fence: and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
General Agents for the Coast. K and 10th Streets, Sacramento.

W. R. STRONG, Seedsman. Established 1857. — 1876. — ROBT. WILLIAMSON, Nurseryman, Established 1865.

W. R. STRONG & CO.

SEEDS. TREES.

San Francisco Office, 418 & 420 Clay Street. Sacramento Office, 8 & 10 J Street.

Nursery Grounds, Sacramento County.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, - - - W. R. Strong & Co.
House in San Francisco, - - - Strong & Williamson.

P. S. Alfalfa, Chile grown, 7 to 11c; California, 11 to 15c, as per quantity and grade Guaranteed fresh and genuine.

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO, CAL.,

MANUFACTURERS OF

LINSEED, CASTOR AND COCOA NUT OILS,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our Works.

Office—3 and 5 Front Street.

The Aughinbaugh Blackberry

This new blackberry is a California production, of large size, firm, and excellent flavor. It ripens from May until August. The last of the crop of berries sold readily at 40 cents per pound when the "Early Wilson" brought 20 cents at the same time. Plants are now ready for transplanting and for sale at my residence on Central avenue, west of Webster street, Alameda, and GEO. F. SILVESTER'S, 317 Washington St., San Francisco.

PRICES:

For one doz., by mail, postpaid	$3 00
Less than one doz., by mail, postpaid, each	50
For 100, forwarding expenses paid by purchaser	15 00
For 1000, forwarding expenses paid by purchaser	100 00

Send your address and receive circular containing particulars FREE.

G. AUGHINBAUGH.

CAMELLIAS.

We offer a large stock of very fine plants at from $33 to $100 per 100. For catalogues of these, as well as of **Azaleas, Rhododendrons** and **Evergreen Trees** in great variety, address

R. B. PARSONS & CO.,
Box 99, Flushing, N. Y.

BLUE GUM TREES.

400,000 For Sale. Price from $30 to $50 per 1,000. Also 1,000 Cypress trees.

BAILEY & CO.,

Depot, 118 East Twelfth street, Oakland, Alameda county, Cal. Lock Box 80.

1,000,000 Blue Gum Trees

At $10 per 1000 in lots of 10,000, or $15 per 1000 in smaller quantities. Address W. A. T. STRATTON, Pacific Forest Tree Nursery, Petaluma, Cal.

LOS GATOS NURSERIES,

S. Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

Is the most beautiful work of the kind in the world. It contains nearly 150 pages, hundreds of fine illustrations, and four Chromo Plates of Flowers, beautifully drawn and colored from nature. Price 35 cents in paper covers; 65 cents bound in elegant cloth.

Vick's Floral Guide, Quarterly, 25 cents a year.

Address, JAS. VICK, Rochester, N. Y.

FOR SALE—BLUE GUM TREES.

The undersigned has the pleasure of announcing to those contemplating planting largely this season, the nursery stock of the well known Gum Tree Farm, at $15 per thousand, nursery price. The young stock is extensive, ranging in hight from 8 inches to 1½ feet, specially grown for Forest Culture. Address, ISAAC COLLINS, Haywood, Alameda Co., Cal. Nursery situated on Redwood road, 1½ miles from Haywood.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS; all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

RIVER BANK NURSERY,

San Jose, Cal.

Established - - - - - 1855.

FRUIT AND ORNAMENTAL TREES in great variety. Choice and Rare Variety of EVERGREENS, SHRUBS, ROSES, BEDDING PLANTS, PALMS, MAGNOLIAS, FERNS, TUBEROSES, GLADIOLAS, Etc., with general collection of Greenhouse Plants, Hanging Baskets, Etc.

Nursery and Greenhouses, corner Berryessa road and 12th street, two blocks from terminus of North Side horse railroad. Address

L. F. SANDERSON,
Nurseryman and Florist, San Jose.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of **Evergreen and Deciduous trees. Australian Gum trees** in variety, by the hundred or thousand. **Monterey Cypress** in quantities and sizes to suit all. **Orange and Lemon trees** at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,
325 Washington street. S. F.

Formerly at 315 Washington street.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,
P. O. Box, 722. 516 Battery Street.

BOWDITCH'S FLOWERS

My Illustrated Floral Catalogue for 1876 is now ready. Price 10 Cents, less than half the cost.

WILLIAM E. BOWDITCH, 645 Warren St., Boston, Mass.

Seedsmen.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,
607 Sansome St., San Francisco.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

FLOWER SEEDS. VEGETABLE SEEDS.

Spooner's Prize Flower Seeds

Spooner's Boston Market Vegetable Seeds.

The cheapest and best seeds in the market. Send two 3 cent stamps for our illustrated catalogue and see the prices.

W. H. SPOONER, Boston, Mass

ALL ABOUT GARDENING

For Home Use and for Market, in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

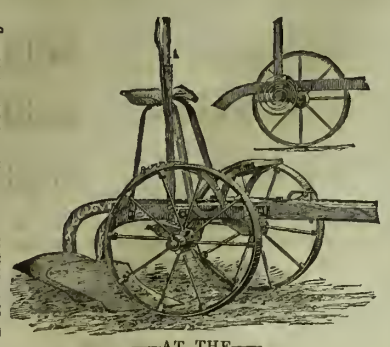
GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

Agricultural Articles.

OAKLAND GANG PLOW

Pat. and Manufactured by HENRY N. DALTON.



—AT THE—

PACHECO

Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

Thie Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground or be raised seven inches above it, and the gang will work on side hill ae well ae on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON.
Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

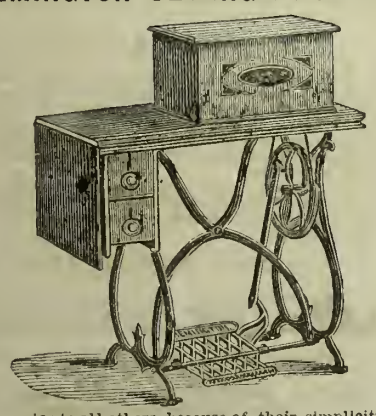
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjneted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so construoted that the wheels themselves govern the action of the Plow correotly. It has varions pointe of superiority, and oan he relied npon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

GUANO FOR SALE,

In Lots to Suit, by

CROSS & CO.,

316 California Street, - - - San Francisco

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..	$35 00	Extra Shares—No. 1.....	$3 00
No. 2 " " " " ..	90 00	" " No. 2.....	3 50
Landsides for single Plows..			$2 50
" " Gang Plows...			1 50

All kinds of casting done on short notice.

San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

SAVE $50! WHY PAY $85?

SEWING MACHINES.

REDUCED PRICE, $35.

HOME and HOME SHUTTLE SEWING MACHINES.

Reduced to Live and Let Live Prices.

These Machines are superior to any and all; nice sewers, straight needle, two threads, shuttle, lock-stitch, the simplest and cheapest, and the lightest running first-class Machines in the market. To see is to convince yourselves.

The Hall Treadle for Sewing Machines,

The most important improvement ever made. It saves labor and preserves health. No more diseases and deaths, side or back aches from using Sewing Machines. No teaching required. A child can run it. Always starts the right way. Never goes backwards and breaks things. Can be stopped instantly. With it on your Machine, you can do double the work you can without it. Fifty stitches can be made with one pressure of one foot. It can be applied to any Sewing Machine. Approved by Massachusetts State Board of Health (see Official Report 1872), Massachusetts Medical Society and Massachusetts Charitable Mechanics' Association. The HALL TREADLE is a part of all HOME MACHINES sold by us.

The Hall Treadle Grinding Machine

Must be seen to be appreciated. For a Farmer or Mechanic to see it, is to buy one. It is an indispensable article in every Farm-house, Shop or Hotel.

The Hall Treadle Jig Saw and Boring Machine

Is an accomplishment in every Workshop. The HALL TREADLE is applicable to all machinery requiring foot-power—Sewing Machines, Grindstones, Jig Saws, Turning Lathes, Jewelers' and Dentists' Lathes, etc Send for Circulars.

owbp **HALL TREADLE MANUFACT'G CO., 17 New Montgomery St., S. F.**

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

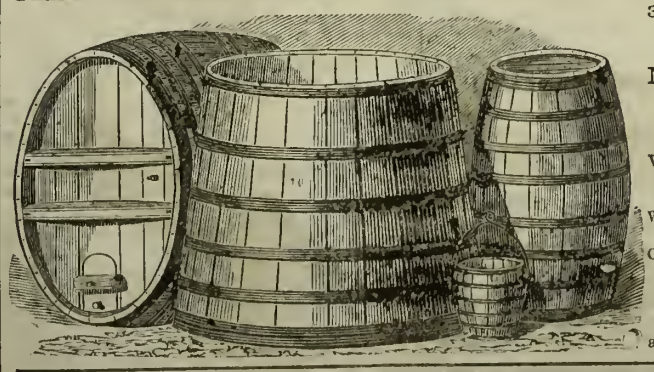
—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
El Dorado, El Dorado Co., Ca

CALIFORNIA WINE COOPERAGE AND MILL CO



30, 32, 34, 36, 38 & 40 Spear Street,

M. FULDA & SONS
Proprietors.
Manufacturers of

WATER TANKS, SHIP TANKS, MINING WORK,

WINE, BEER AND LIQUOR CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed and Dried Before or After Manufacture at Reasonable Rates.

Sawing, Planing, etc. at Short Notice. eowbp

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

Lands and Homes for Sale.

Rich Farm Land For Sale.

L. F. MOULTON, of Colusa,

OFFERS FOR SALE VERY CHEAP, FOUR THOUSAND ACRES OF EXTRA WHEAT OR VEGETABLE LAND, ADJOINING WHICH HAS GROWN FORTY BUSHELS TO THE ACRE THIS YEAR, AND IS EASY TO IRRIGATE, YET HIGH LAND, AND ON THE LINE OF THE COLUSA AND CHICO RAILROAD.

This is the best and cheapeet land in the State.

Address the owner, at Colusa, for particulars.

FRUIT RANCH FOR SALE.

Ten miles south-east of San Bernardino. Eighteen acres of vineyard. Ten acres of alfalfa. Several thousand young fruit trees. Abundance of water. Beautiful location and only five miles from the railroad. Terms easy. For particulars, address

WM. CRAIG, San Bernardino, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART, Eureka, Humboldt Co., Cal.

A Card.

Watsonville, Dec. 6, 1875.

To C. P. Hoag, Gen. Agent, 118 Beale street, S. F.,

Dear Sir.—We have had the Eclipse windmills in use several months. They have worked to our entire satisfaction, running in the lightest breeze, and their self-regulating apparatus working to perfection in the severest gales. We take pleasure in recommending the Eclipse to all desiring windmills.

Yours truly,

Otto Stoesser, E. S. Peck, J. M. Rodgers and E. J. Martin.

Reasons why the Eclipse Windmills should be Preferred.

1.—It has been tested eight years in almost every State in the Union.

2.—It is the most simple in principle, strongest in construction and poseesse more power than other mills.

3.—It is noiseless in operation, beautiful in design, and well finished. Has no loose joints to get out of order.

4.—Has hardly any friction and will run in light winds. It is a perfect self-regulator.

5.—It is sanctioned and adopted by the leading railroads for their water stations, and pronounced by railroad engineer to be built upon true mechanical principles.

6.—The entire mill is guaranteed, and any casting or portion of a mill breaking from defect in material or workmanship will be replaced free of charge without delay.

7.—The rims are straight, instead of steamed or bent, as in other wheels, and the entire mill is durable.

8.—The cost is less than others when the actual power, durability and safety are considered.

Write me or call.

CHAS. P. HOAG,

General Agent for Pacific Coast, 118 Beale street, between Mission and Howard, San Francisco, Cal.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candies, Candied Fruits, Honey, Maccaroni, Crackers, Sugar, Soap, Boots, Etc,

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

LOOK!

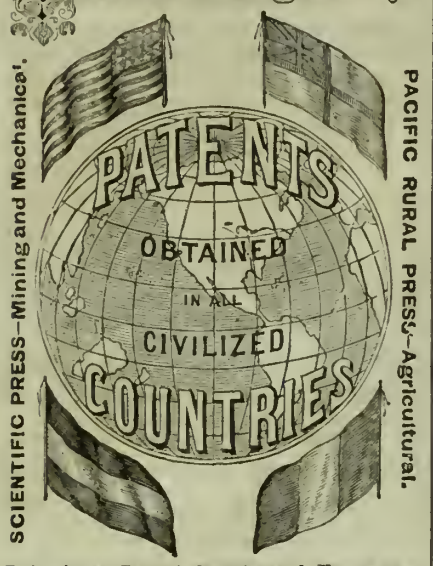
ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls reduced prices. Send for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 45 Cal. Market S.F

DEWEY & CO'S

SCIENTIFIC PRESS

Patent Agency.



Publishers, Patent Agents and Engravers.

No. 224 Sansome Street San Francisco Cal

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
JOHN ROSTRON—California.
G. W. McGREW—Santa Clara county.

THOUGHTLESSNESS.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

Dewey & Co. {224 Sansome St} Patent Agt's.

1876. Scribner's Monthly. 1876.

We invite the attention of the public to SCRIBNER'S MONTHLY, which now deservedly ranks among the BEST ILLUSTRATED PERIODICALS OF THE WORLD.

The papers illustrative of American scenery, which have appeared in its pages, among which were included "The Wonders of the Yellowstone" and the "Grand Canon of the Colorado," have won wide-spread admiration on both sides of the Atlantic; and "The Great South" articles, with their beautiful engravings, have been re-issued in book form in both Great Britain and America. For the coming year we have broader plans than ever before. The magazine will be enlarged, and there will be THREE REMARKABLE SERIAL STORIES BY AMERICAN WRITERS.

"Gabriel Conroy," by Bret Harte.

Of which the Boston *Post* says: "It is a serial that will make every new number of SCRIBNER'S eagerly sought for, if it had nothing else to recommend it."

The *Canadian Illustrated News* predicts that "we have found at last *the* American novel."

The Louisville *Courier-Journal* says: The second installment is even stronger than the first, justifying all that was looked for.

We begin in January,

"Philip Nolan's Friends,"
By EDWARD EVERETT HALE.

This is an historical romance. The scene is laid in the South-west, at a time when that territory was first Spanish, then French, and then American, and when war was imminent, to obtain control of the mouth of the Mississippi. It is likely to be the great romance of the Mississippi valley, as "Gabriel Conroy" will be of the Pacific slope.

"That Lass o' Lowrie's,"
By FANNY HODGSON BURNETT.

The friends of "SCRIBNER" who have read "Suriy Tim's Trouble," "One Day at Arle," "The Fire at Grantley Mills," and others of Mrs. Burnett's short stories, will not need to be assured that they have a rare treat before them. The scene of the new novel is laid in an English mining town, and from the first page to the last the interest is unflagging.

Among other notable papers we mention the following: A second "FARMER'S VACATION," by COL. GEORGE E. WARING, descriptive of a row-boat ride of two hundred and fifty miles in one of the most fertile and interesting of the vine-growing valleys of Europe—a region never seen by the ordinary traveler, but full of interest, in its social and industrial aspects. A rare collection of REVOLUTIONARY LETTERS. A SERIES OF ILLUSTRATED ARTICLES ON AMERICAN COLLEGES. The series includes William and Mary, Harvard, Yale, Michigan State University, Wesleyan University, Amherst Agricultural College, Princeton, Union, Bowdoin, Trinity, and other typical institutions of the country. Elegantly illustrated articles on OLD NEW YORK, illustrated papers on AMERICAN CITIES, etc.

The editorial control and direction of the Magazine will remain in the hands of DR. HOLLAND, who will contribute each month editorials upon current political and social topics. Our readers may look to "TOPICS OF THE TIME" for healthy opinion; "THE OLD CABINET" for pure sentiment; "HOME AND SOCIETY" for graceful economy; "CULTURE AND PROGRESS" for criticism; "THE WORLD'S WORK" for industrial intelligence; "BRIC-A-BRAC" for wit and innocent pleasantry.

SCRIBNER'S MONTHLY is now recognized, both in this country and in England, as the great representative American Magazine.

Encouraged by the favor accorded to it by a generous public, we shall aim, during the Centennial year, to eclipse its former achievements in both its Literary and Art departments.

SCRIBNER is sold by all First-Class Booksellers and News-Dealers.

Price $4.00 a Year; 35 cents a Number.

The 10 vols. complete, Nov. 1870, to Oct. 1875, bound in maroon cloth..... $20.00
Same bound in half morocco..... 30.00

Vols. begin in November and May. Any of the earlier volumes (I to VIII) will be supplied separately to parties who wish them to complete sets at this rate, *i. e.*, cloth, $2.00; half morocco, $3.00.

Booksellers and Postmasters will be supplied at rates that will enable them to fill any of the above offers.

Subscribers will please remit in P. O. money orders, or in bank checks or drafts, or by registered letters. Money in letters not registered at sender's risk.

November and December numbers FREE TO ALL NEW SUBSCRIBERS for 1876.

SCRIBNER & CO., 743 Broadway, N. Y.

1874. 1876.

PATRON'S HELPER,

A Large Weekly Paper, devoted to the Interests of the Patrons of Husbandry.

AS A FARMER'S PAPER—Replete with practical information for working farmers.

AS A COMMERCIAL PAPER—Teaches where, when and how to buy; where, when and how to sell.

AS AN ADVERTISING PAPER—Excludes everything which is of doubtful utility, and every advertiser who is of doubtful responsibility.

AS A FAMILY PAPER—Pure and chaste, free from scandals and low wit, but full of the choicest and brightest thoughts of the best writers of the day.

AS A NEWSPAPER—Full and complete; carefully gathers from all sources whatever is of importance and presents it in a fresh, bright and intelligent form.

AS A GRANGE PAPER—Gives all Grange news; freely and fully discusses all questions of interest to Patrons, whether inside or outside of the Order, and fearlessly proclaims the sound political and economic principles on which our reform is based.

Subscription price, post-paid, $1.50 a year in advance. Specimen copies free.

Address all communications to

GEO. WILLIAM JONES, Publisher,
Des Moines, Iowa.

TRAVELING

AGENTS

WANTED

For this paper. Experienced canvassers can make excellent wages. None but intelligent persons of good recommendation need apply.

GUADALUPE ISLAND COMPANY.

Notice is hereby given that the Annual Meeting of the Stockholders of the Guadalupe Island Company, will be held at its office, 207 Sansome street, San Francisco, Cal., on Monday, January 31st, 1876, at 3 P. M.

ARTHUR RODGERS, Secretary. BENJAMIN FLINT, President.

THE 100 DAYS TOMATO.

Actually ripens in one hundred days.

Earliest Good Tomato Ever Offered

Free from rot; ships well; remarkably prolific.

$419.50 Sold from One-Fourth Acre.

Positive proof of these claims in Free Circular.

25 cents per packet; 5 for $1.00, post-paid. Address J. A. FOOTE, Seedsman, 512 Main St., Terre Haute, Ind.

CHAS. H. PHELPS,

ATTORNEY AT LAW,

306 PINE ST., N. W. Cor. Sansome, SAN FRANCISCO

☞ Especial attention given to cases involving Mining, Patent or Commercial Law.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞ Trade Price-List on application.

*** My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

THE Twentieth Edition of our celebrated Seed Catalogue and Amateur's Guide to the Flower and Kitchen Garden, containing upwards of 200 pages, including several hundred finely executed engravings of favorite flowers and vegetables, and a beautiful colored chromo, with a Supplement for 1876, will be mailed to all applicants upon receipt of 35 cents. An edition elegantly bound in cloth, $1.

BLISS' ILLUSTRATED GARDENERS' ALMANAC

For 1876, and Abridged Catalogue of Garden and Flower Seeds, contains upwards of 100 pages, and embraces a monthly Calendar of Operations and a price list of all the leading Garden, Field and Flower Seeds, with directions for their culture. A copy will be mailed to all applicants inclosing ten cents. Address

B. K. BLISS & SONS, 34 Barclay St.,
P. O. Box 5712, New York

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Lusante.

Chestnut: Marron de Lyon and Combalc.

Walnut: Prosparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks. PIGEONS. RABBITS. FERRETS.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

SANBORN & BYRNES,

STAIR

BUILDERS.

Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-bp

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.
FLOWER AND VEGETABLE SEEDS.
TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,

SEEDSMAN,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns. Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord
J. VOLLMAR.....S. F.
J. D. BLANCHAR.....Napa
C. MITCHELL GRANT.....
J. REGENSBURGER.....S. F.
A. W. THOMPSON.Petaluma
F. A. KIMBALL....San Diego
I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street. S. F.

CAMELLIAS. A large stock of very fine plants at rates from $3 to $100 per 100 according size and kinds. Also

Rhododendrons, Azaleas and Roses.

PURPLE BEECH and other RARE and ORNAMENTAL TREES.

ROSES and the Best FLOWERING SHRUBS.

CLEMATIS OF MANY NEW AND FINE SORTS.

Catalogues Free. Address

R. B. PARSONS & CO.,
[Box 99,] Flushing, New York.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore),
425 Washington St., San Francisco. 22v7-1y

Grapevine Cuttings.

B. Malvasia, Zinfindel, Muscat Alexandria, Berger, Large White Malaga and many others. Price, three to five dollars per thousand.

H. W. CRABB,
Oakville, Napa County, Cal.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, JANUARY 22, 1876. [Number 4

Straw Burning Engines.

Straw burning engines for steam plowing and threshing are considered the latest improvement in agricultural machinery by our valley farmers, who have had an opportunity to see them working successfully. There were about forty of these engines at work in the State during the harvest of 1875. Mr. H. W. Rice, of Haywoods, made over one-half of this number. But for his experience and experiments, in connection with Mr. D. Morey, of Watsonville, our farmers would probably not have had a straw burning engine at work in this State yet. Mr. Morey obtained a patent in 1873, and a reissue in May, 1875; Mr. Rice obtained a patent January, 1874, and reissue in May, 1875. Credit is due Mr. Morey for his persevering efforts to obtain a suitable feeder for this style of engine. This system of feeding straw is very simple and effectual, as it excludes all cold air from entering the boiler above the fire, which it is impossible to do with the ordinary furnace with wood and coal. Messrs. Rice and Morey have sold their interest and right to make these engines on this coast to Marcus C. Hawley & Co., Nos. 108 and 110 Front street, S. F. The engines are 18-horse power. Mr. Rice is now on his way to the Eastern States, where he goes to introduce the straw burners. Messrs. Enright, of San Jose, Heald, of Vallejo, Brown, of Salinas, and Ames company, Oswego, N. Y., made the other engines. The latter firm's engines were made for Messrs. Baker & Hamilton, of this city. Most of these engines show some slight difference in detail. The illustration on this page gives a good idea of the engine, showing the man in the act of getting up steam with straw.

Many of our farmers who live in places where wood is plenty have not yet seen the straw burning engines working, and some of them even refuse to believe it possible to keep steam with straw to run a threshing machine steadily. Firing with straw is not difficult. I took a boy who had never fired an engine and put him to feeding straw. He watched me firing for about ten minutes and then I let him go to work, showing him a little about keeping the fire right. I had plenty of steam the first day.

As far back as the year 1856 a mill of six pairs of stones was successfully driven by a straw burning engine. This mill was situated on the Pardang estate, in Lower Hungary, and since then the established fact of the possibility of straw being used for the generation of steam has led to a dozen, more or less, good patents being taken out in England, some of which are now working successfully in Hungary and other grain growing countries.

There are over 200 straw burning engines in Hungary. Over fifty of these are made by Garrett & Son, an English firm. They all use the ordinary fire-box boiler, but made somewhat longer than for wood and coal. The makers of straw burners in this State say they cannot burn straw in fire-box boilers, and have all adopted Mr. Rice's plan of the return-tube boilers, generally known as the Cornish boiler.

Messrs. Fowler, of Leeds, England, have constructed two 12-horse (English nominal) traction engines for use in Russia, which are to be fired with straw (fire-box boilers). The engines are intended for steam plowing, and this work is much heavier than threshing. These engines will have to indicate 60-horse power. Under these circumstances Messrs. Fowler did not like to rely on straw alone, so a tank is provided, standing across the top of the boiler, and from this petroleum can be blown in spray into the fire-box. Some trials of the engines have been made which, even with English straw of inferior quality, gave eminently satisfactory results, and there is no reason to doubt that with straw of Russian growth the results will be quite satisfactory.

Messrs. Ransome, Sims & Head, of Ipswich, England, sent one of their patent straw burning engines to this city last spring. This engine has an ordinary fire-box boiler, made larger than a coal fire-box. The straw is put in by means of a pair of toothed rollers. The rollers are run by a belt from the engine shaft, at a speed of from forty to fifty revolutions per minute. This keeps a small but steady supply of straw going into the fire all the time. By special invitation of Messrs. Ransome's agent, in this city, I attended a private trial of this engine at his place some months ago. The engine worked well, consuming the straw thoroughly. The straw, of course, makes some clinker, which is readily removed by an arrangement of bars between the grates, moving to and fro easily and quickly, clearing the fire. This engine will probably be used during the harvest of 1876, and the readers of the RURAL who are interested in this subject may look for a more detailed account of the work of this engine.

As this or some other arrangement is much needed in our State, an attachment that can be applied to the many engines now in use for the successful burning of straw would save our farmers many thousand dollars. Unless we have an attachment for this purpose that will work successfully, second hand wood and coal burning portable engines will become a drug in the market. To remove the old engines from the boilers, and purchase a new boiler of the Cornish style, put the engine on and remount it, will cost from $1,000 to $1,300. I altered a coal burning engine for the season of 1875, and did considerable of the work myself.

STRAW-BURNING ENGINE.

It then cost me about $900. The engine worked well. The boiler made plenty of steam with ease. I threshed three months with this engine in San Joaquin county and at Half Moon bay, and will say that I consider straw the best fuel, preferable to wood or coal, even if the cost of straw was equal to that of wood or coal.

An even pressure of steam can be kept easier with straw than with wood or coal. The straw must be fed steadily. If overfed the main fine is filled up, much smoke is made and the fire smothered. The effect of feeding straw too fast is about the same as feeding too slow. In one case the fire is smothered and in the other the engine draws too much cold air. In either case the steam pressure is reduced.

There is less danger of fire in the field from straw burners than from wood, which fuel is generally used in this State. There is no need of pulling the fire out when going to the next stack, as is often necessary when burning wood. A fire occurred from this cause near where I was threshing, in the season of 1874. An engineer pulled his fire just before moving in the evening, and threw some water on the burning wood, but did not put it out. A few hours after, and in the night, the stubble caught fire from this wood, and the fire ran to the next stacks, where the machine had moved to, also to another machine near by; both separators, driving belts, tools, four stacks of wheat and a lot of empty sacks at each machine were destroyed by this fire.

The farmers prefer the straw burning engine. Threshers who have straw burners do not have to look for work—the work looks for them.

J. W. RILEY.

The Wheat Outlook.

It is strengthening to have a good outlook. In the telegraphic quotations from the *Mark Lane Express*, which appears in our market report to day, it is said that a rise in wheat value is expected with the setting of March. This will argue well for the wheat growers, and we earnestly hope the event may prove it. There seems every reason for a satisfactory advance, so far as we can see into the stone wall of the future. Our own market is evincing a gratifying tendency. Let it go on.

We find in a circular, recently issued by a Milwaukee firm, some very interesting and ingenious figuring of probabilities, which is worthy of reproduction for our readers. It is as follows:

If statistics are of any value, we contend that the following figures, pointing all in one direction, telling all the same story of early depression, and final recovery, are a sure index to the course of the market during the next six months. The law of "averages" although but imperfectly understood, is nevertheless as potent to the scientist as the law of gravitation, and the same causes which have for seventeen years produced the same result, will effect a like result this season. During the present month cash No. 2 wheat sold at 96½c, which is the lowest figure reached, as well during the month as on the crop. Taking the lowest prices during December as a basis, we find that during the past seventeen years the price of wheat some time during the next six months, has in each and every instance advanced sufficiently to pay all expenses and a handsome profit. The average advance for seventeen years is 37½c per bushel; the smallest advance is 14c and the largest 95c.

The maximum has been reached mostly during January, May and June. If we carry the figures still further and take the advances from the lowest prices during the first four months of the cereal year to the month of June following, we have an average advance of 46c per bushel, which would indicate that some time during the next six months No. 2 wheat would bring at least $1.42 in our market, on the hypothesis that the causes now existing are of average strength with the same causes for the past seventeen years. We think they are stronger.

The minimum advance would give us $1.10⅞ and the maximum $1 91.

INCLUDING coin and bullion, the value of the foreign imports at San Francisco for 1875 was $32,523,500, of which Japan contributed the largest figure—$9,470,500.

AN action has been commenced against the Bank of California, to enjoin the sale of delinquent stock.

East Oakland Nurseries.

On Friday of last week we paid a visit to two creditable nurseries, which are located on 12th street, Oakland, near Tubbs' hotel, and are easily reached by street cars running out from the center of the city.

We first inspected the premises of Bailey & Co., who make a specialty of propagating Australian forest trees. They have an establishment which is a credit to the State. Seven acres of choice land in the foothills serves as a growing ground. The location on 12th street is a fine distributing point, and the newly-established depot opposite the City hall, Market street, S. F., brings their stock in such prominent view that all can examine its quality.

At the place in East Oakland we saw 400,000 of the finest blue gum seedlings ready for replanting. The trees were of unusually uniform strength and size. We saw numerous examples of the quick growth of this tree. A fine row reaching through the center of the nursery was an average of six feet high and only nine months from the seed. Mr. Bailey promises a cord of wood in ten years from each tree favorably located for growth.

Mr. Bailey makes a suggestion for the usefulness of this tree to farmers in the way they can be used for fencing purposes. Land can be subdivided by blue gum trees. Planted one foot apart, in four years they will make a living fence. A gateway can be made at any point by cutting out a few trees and hanging the gate upon a tree for a post.

An important point to forest cultors is the nature of the wood they grow. Concerning the lasting properties of the blue gum wood, the following is a new instance: Twenty years ago a surveyor drove down stakes of gum wood near Bernal hights. Last week some of them were pulled up out of curiosity, and the wood was found still sound in the center, though rotted upon the exterior.

Mr. Bailey maintains that the eucalyptus can be grown anywhere and any waste place can be covered with them. He believes that the waste hills back of San Francisco can be covered with a handsome forest. To succeed in a waste place he would plant the trees young and cultivate them for two years. The limbs should be permitted to grow down close to the ground, and thus the tree would protect and maintain itself.

We saw a number of other praiseworthy things at Bailey & Co.'s. They have 85,000 fine young Monterey cypress trees and a fine show of the iron bark eucalyptus. They find their business rapidly extending, which argues well for the cause of tree planting. Last year during the whole season they sold 177,000 trees. This year 100,000 have already been disposed of. But this is as much of Bailey & Co. as it is of tree planting, and we forbear, inasmuch as Bailey & Co. tell their own story in our advertising columns this week.

After looking over the last named establishment we crossed the street and visited L. M. Newsom, of the Maple Leaf nursery. Mr. Newsom makes a good show of nearly all kinds of trees, shrubs and potted plants. He is quick to secure all favorite growths and is a skillful propagator. He has native redwoods three years old which are four feet high. He is doing a good deal in the eucalyptus, and has some fine stock; so also with evergreens. Mr. Newsom gave us some interesting points on Monterey cypress. It can be pruned and trimmed almost at any time, because in our climate it is always growing. It is easily propagated. Cut off a sprig three or four inches long, so as to leave on the heel by which it is joined to the larger branch. Break off two or three of the lower leaf stems and then stick it in the soil of the bedding box. He starts cuttings in sharp beech sand, first washing out the salt. In the box he puts first a layer of coarse soil to get drainage, and covers this with sand in which the cuttings start.

THE Union Republican national convention for nominating candidates for president and vice-president of the United States, will be held in Cincinnati, June 14th.

CORRESPONDENCE.

Northern Part of Santa Barbara County.

MESSRS. EDITORS:—If the following items of news from this portion of the county, least frequently heard from, are of sufficient interest to your readers, you are welcome to them. Of Lompoc temperance colony, its fertility and rapid settlement, you have been fully advised. I will only now say that the rains have come very opportunoly. At first they came rather sparingly, with considerable intervals. But this gave our farmers the better chance to "get a good rosdy." We have just had heavier rains, warm and copious, that make all feel jubilant. The weather is still unsettled. Everybody is busy preparing to put in large crops. The wharf is contracted for and is expected to be finished by an experienced wharf builder of this coast in 90 days. Already lumber is brought here and potatoes taken away for San Francisco by schooners. We expect steamers to take away our next crop and bring us return supplies.

The Los Alamos Valley

Is a very fine one, bounded by good grazing hills, timbered somewhat with oak, etc., with very cosy nooks and canons for homes. The valley is being surveyed into farms of several hundrod acres each. The land is level, almost, as a table. These farms are being taken up at a rental of one, two and three dollars per acre per annum for three years respectively. A good deal of plowing and sowing to grain is already done. The no-fence law (which may the legislature not repeal, is the prayer of many a poor man now farming,) precludes the necessity of fencing. Moreover, the cattle on these ranches are being taken away, making room for sheep, so much more easily herded and kept from trespassing. I should add that water is obtained at from ten to twenty feet, and wood and a sheltering canon for a house are thrown in with the land rented. The regular overland stage from Soledad—terminus of Southern Pacific railroad—to Santa Barbara and Los Angeles passes right through this valley, by the farms spoken of, each way daily. It is but a few miles from

La Graciosa,

Where a daily mail, Wells, Fargo & Co. agency, etc., are established; stores, hotel, restaurant, stage office and stable, etc., are also found here. Messrs. Adams & O'Neil have built a very handsome and commodious store, and over it the largest and finest hall in this part of the country. In it I had the pleasure, recently, of preaching. This little town is growing. The Todos Santos ranch is about to be surveyed, and that will determine what Government land there is in the neighborhood. Some parties have taken up claims in anticipation; a goodly number have homes already established in the rich little valleys adjoining. The moving back of the cattle, before referred to, will also lead to the necessary migration of a number of native Californians, and the disposing of their homesteads and claims in quarter sections to Americans. It is said that two or three good dairy ranches on the Todos Santos ranch, now belonging, I believe, to Mr. Newhall, the San Francisco auctioneer, can be rented on very good terms. Beyond Graciosa eight or ten miles is Central City, a comparatively new town in the midst of a very fertile valley, called

Santa Maria Valley.

But for the grasshopper plague that infested the place for several successive years, this would be dotted all over with improved farms and thriving orchards and shade trees. The land, a sandy loam, is easily worked and very productive. Last year the grasshoppers gave little or no trouble, and this year there are no signs and no fears of them. Hence, with the seasonable rains, and absence of frost—at least on my last visit, Christmas day, green and ripe tomatoes, and fresh potato vines were to be seen—they expect to raise large and remunerative crops. Though money is scarce here as everywhere, houses are being put up and stores improved all the time, making the settlement look quite townlike.

Ton and a half miles from here is

Guadalupe,

On the Santa Maria river, which divides our county from San Luis Obispo county. I have had no occasion to visit this town for several months, so cannot say much about it. I know that some fine, rich land adjoins it, and that a good deal has been lately sold to settlers. It is good for grain, potatoes, corn, pumpkins, beans, dairying, etc. I see more advertised for sale. The overland stage makes daily connection both ways with this town and San Luis Obispo and Santa Barbara.

In conclusion, there is a great deal of travel to this county; a great many like this part of it, purchase or rent and thus become settlers. Gradually the stock ranches—all more or less suitable for farms, agricultural, grazing or dairy, or all combined, will be cut up and sold, or colonized. It is capable of supporting a large population, and a short time will undoubtedly bring the people to occupy, utilize and beautify what nature has done so much for already. There is a good deal of business-like talk concerning railroads just now, down south of here. J. W. WEBB.

Lompoc, Jan. 3d, 1876.

For the Centennial and the "Rural Press."

MESSRS. EDITORS:—I can hardly render a fitting apology for continued silence. Will the plea of plenty of work avail? Only a few days ago I finished shipping the last of my tree sections to Washington—over a ton in all. Then, in order to distribute my large collection of plants into their families, some 500 large receptacles were needed in my herbarium. This is just completed, making my herbarium now, perhaps, the finest thing of the kind in the State. The selection of about 1,000 species of plants for the Centennial Exposition follows, then writing up my botanical excursions of 1875 for the RURAL PRESS.

I intend to celebrate the Centennial year by a grand exploration of the Sierra from end to end, in company with the distinguished botanist and explorer, Dr. C. C. Parry. Beginning at the south end in March, we ascend Mount Whitney and his alpine neighbors in May, and reach Yosemite in June. Then leaving the Doctor in midsummer to revel in the charms of Central California (familiar to me), I will hasten East to visit Philadelphia and other Atlantic cities, returning in September to rejoin Dr. Perry for the exploration of the Oregon Cascades.

Sincerely yours, J. G. LEMMON.

Sierra Valley, Cal., Jan. 7th, 1876.

Hungry Hollow.

MESSRS. EDITORS.—Our beautiful valley is called Hungry Hollow. The rains so far have been gentle, and not dashing rains like we have some seasons. The wheat, barley and grasses are four or five inches tall, and it makes this valley look very beautiful. There is a very large crop of grain put in this fall; the most of it is summer fallow and volunteer grain. There is not a great deal of winter sown grain.

Hungry Hollow, Cal., Jan. 1st. J. M. D.

THE DAIRY.

How Prize Cheese is Made.

At the last grand exhibition of the American Institute, held in New York city, which was closed November 13th, B. F. Adams, of Austin, Minn., exhibited some specimens of excellent cheese, for which he was awarded the premium. Herewith we give the principal details in the manufacture of such cheese, which he has furnished to the *Practical Farmer* for publication. He writes:

"The cows whose milk was used in the manufacture of the cheese, were fed entirely on the wild grass of Minnesota. I receive the milk but once a day—in the morning. The farmers set their milk in cans put into a tub of cold water, and cool it down to the temperature of the atmosphere by agitating it well with a large dipper. Morning milk the same in a separate can. The milk when received at the factory in the morning is weighed and strained through two thicknesses of bandage cloth and kept constantly agitated in the vat until the rennet is added; this is to prevent the cream from rising. After the milk is all received, the heating process commences, which is done by steam from a five-horse power boiler, and conducted through pipes under the vat. I first heat the milk to a temperature of 82 deg., then I add a very little coloring prepared of annatto; next I put in rennet enough to cause coagulation in fifteen minutes; rennet is prepared in cold water, cut up in small pieces, and sufficient salt added to keep sweet. After the whole coagulated mass becomes hard enough, I cut both ways and let stand until the whey rises, then the scalding process commences. Scald very slow until a temperature of 90 deg., then retain it at this temperature until cooked and acidity begins to develope on the whey—the whey is then drained off and the curd dipped into the curd sink and salted immediately, using two and one-half pounds of salt to one thousand pounds of milk. After the curd is cooled to the temperature of the atmosphere then put to press, and bandage; press for about eighteen hours; then take out of the hoop and put in the dry room. I use no grease in the curing process, nothing but a small piece of bandage cloth—A good rich cheese will grease itself enough. I keep my drying room at a temperature of about 80 deg.

How Milk is Secreted.

In his address before the Pennsylvania dairymen's association, Prof. L. B. Arnold gave a description and illustration of a fully developed udder in its active state, showing it to be divided into four separate glands, each acting independently of the other, but all bound together by elastic membranes and suspended and supported by one compound tendon connected with the abdominal muscles, and ramifying in minute filamentary divisions which fasten into every part of each division of the udder, and also into the skin which covers it, so that it is well supported, even when heavily laden with milk. Milk, he said, is not contained in the udder in one capacious sack, as many people suppose, and as some authors have represented, but in small reservoirs distributed through the glands. The largest of these reservoirs is at the top of the teat, which, as was shown by an illustration recently copied from a fully developed udder four weeks from the time of calving, was only about the size of a turkey's egg. The other cavities distributed through the glands varied from the size of a hickory nut to a pin-head, the largest and greatest number being located at and near the lower part of the udder, diminishing in number and size upward. The reservoirs in each quarter of the bag are cemented by a set of tubes distinct from the other quarter, which run like blood-vessels by crooked routes from one reservoir to another, till they at last connect with the larger cavity at the top of the teat. In each quarter of the udder all the internal arrangements and subdivisions of the glands are not only independent of but different from the corresponding divisions in the other quarters. The reservoirs and tubes in no two quarters are alike, either in size, location or number.

BEES.

Bees in San Diego.

In the course of an able article describing the various interests of San Diego county, the *World* of January 8th prints the following paragraph concerning the honey interest:

The narrow canons and bleak hills of San Diego county that used to be held in derision by the upper country, have proven themselves to be productive of a wealth that places them fairly on a level with the agricultural portions of the State. No matter how steep the hillside, or how gloomy and dark the canon, the nimble winged bee in its busy search for the sweet stores that nature has hid within the bosom of the flower, regards it not, but flits from place to place and gathers its rich store, and lays it away for the benefit of its master, man. The business of bee culture has continued to increase with great rapidity, and in every instance when a person understands the business and will devote his time and attention to it, it has proven profitable.

The following table will show the increase in the business for the last four years:

Year.	No. of Hives
1872	1,136
1873	1,854
1874	2,458
1875	8,761

The yield of honey, while very fair, has not been as great as it would have been had the bees been allowed to work where they were swarmed, but a large number of our bee men devoted their attention to the production of bees rather than of honey, and the moving of the swarms to new localities of course interfered with the working of the bees to a great extent, but notwithstanding these drawbacks, the yield of honey the past year will probably reach 400,000 pounds. Of this amount 307,000 pounds have already been shipped by steamer. There have been manufactured by our two planing mills 16,700 hives; there has been used 800,000 feet of lumber. In addition to this nearly 200,000 feet of cut lumber for hives and honey cases has been imported.

How to Secure Premium Honey.

Dr. P. A. Baker, in the *Beekeeper's Magazine*, publishes a plan to secure the largest quantity and the best honey, which is well worthy of trial.

The plan is simply to keep a very strong colony queenless during the period of the greatest flow of honey. All apiarians know that a virgin swarm will work with more energy in building comb and storing honey, than one with a full supply. It is not uncommon for strong families, with everything needful for storing honey in surplus boxes, to loaf about the hive, until a few empty frames are given between the full ones, when they will soon be filled, but, being in the queen's chamber, she immediately performs her maternal duty and you get no honey. The law is immutable, in their allowing no empty space between broad combs, and the law impelling the bees to fill the space with comb acts with like force in indicating to the queen her duty. By virtue of cause and effect, if the entire hive is made into space, it is but fulfilling that law for the bees to promptly fill it with comb and honey, if, perchance, it is in abundant supply, but madam queen being present, we must allow a considerable force to assist in attentions to her royalty; dethrone her and supply the colony with material to make a new one, and yet allow none to mature for a period, and we shall have our boxes filled with the beauteous nectar. The operation is to put two large swarms, without queens or comb, into a hive filled with empty sectional frames or honey boxes, and give one broad comb at one end of the hive, and before the new queen is hatched, remove the comb and give them another. When the second has become fertile, the greatest flow of honey being over, remove the honey frames or boxes and fill the hive with combs or empty frames as the fall season for honey may indicate. The queens and broad combs can be utilized to advantage, which any intelligent apiarian will understand.

ARBORICULTURE.

A New Conifer.

The latest accession to the ranks of the coniferæ hails from California. In the *Gardener's Monthly* for January we find a description of the *Abies macrocarpa*, by Dr. George Vasey, of Washington, as follows:

In the fall of 1874, Mr. F. M. Ring, of San Gorgonio pass, California, sent to the Department of Agriculture some cones and twigs of a coniferous tree, of which he desired to know the name. The striking resemblance of the cones to those of *Abies Douglasii* was very apparent, but their great size and weight were remarkable. I requested from Mr. Ring more detailed information of the characteristic marks of his tree. In reply, under date of November 25th, 1874, he wrote as follows: "The tree in question is called here a fir tree; it is the first pine tree met with in ascending from the plain to the mountains, growing in the canons of the foot hills, and in this locality is the most common of the evergreens. As you ascend in the mountains it becomes scarce, and is not found higher up than about five thousand feet. It attains a large size, from two to three feet in diameter, and from sixty to eighty feet high; the usual size, however, is about a foot and a half in diameter, and fifty feet high. Its appearance is peculiar, different from the other pines found with it. This is caused by its manner of growth, the limbs extending straight out from the trunk without bending up or down. It is a fine spreading tree, even when growing thickly together, and I think would make a highly ornamental one if planted singly or in groups in open ground."

The leaves had all dropped from the twigs sent by Mr. Ring, and as it appeared too late for more specimens that year, I deferred the matter until the coming year. In the meantime the cones were seen by Dr. Gray and Dr. Engelmann. Dr. E. was particularly interested in the matter, and desired more information and specimens. I accordingly applied again to Mr. Ring last summer, and under date of September 14th, 1875, he writes as follows:

"I have endeavored to find some cones of the fir tree, but have not succeeded so far. This year there appeared to be very few cones formed; last year the trees were loaded with them, but now I can find none but the old ones which still hang upon them. The cones that I sent you came off separate trees, and were of the average size; all the trees of this sort bear cones of about the same size; there are none intermediate in size as far as I can discover. If by the *Abies Douglasii* you mean the Douglas spruce of the northwest coast, I should say the tree in question is not the same. It has not the same general appearance, and grows under quite different circumstances. It is not nearly so large as the Douglas spruce, and the branches are much longer in proportion to the hight of the tree. The branches appear to me to be singularly long and spreading, in marked contrast with the other cone-bearing trees. The bark of the old trees is quite deeply furrowed; in the young ones not so much so, but it is never smooth."

In addition to the information sought for from Mr. Ring, I also instructed Dr. Ed. Palmer, who was making collections in Southern California, to search for the tree, and to get specimens and a section of the trunk. He was successful in finding the tree in San Felipe canon, in the mountains northeast of San Diego. The section of wood has not yet come to hand, but the specimens of twigs and cones have. The twigs seem to be longer and slimmer than those of *Abies Douglasii* and the leaves are rather more acutely pointed, but otherwise there is no apparent difference. But the cones hold out in entire accordance with those sent by Mr. Ring. They are old cones, Dr. Palmer stating that no new cones were to be found. They are five inches long by two and one-half inches in diameter, composed of about sixty scales, which in the center of the cone are one and a half to one and three-fourths inches wide. The bracts can hardly be distinguished from those of *Abies Douglasii*, except that they do not project so far beyond the scale. The difference in the cones of the two kinds is most strikingly shown by their comparative weight. Five average sized cones of the San Gorgonio specimens weighed 202 grammes, equal to six and one-third ounces; while five cones of the average size of the ordinary form of *Abies Douglasii* weighed but thirty-eight and one-half grammes, or less than one-fifth as much. The seeds are triangular, brown outside, and white on the under side, with a wing twice as long as the seed, together being seven-eighths of an inch to one inch long. The seeds are much heavier than those of the ordinary *Abies Douglasii*.

In recent investigations of the collections of the Department, a cone was found marked *Abies Douglasii*, var. *macrocarpa*, collected at San Felipe, Cal., November 16th, 1857, with the note, "cone five inches long, I. S. N. Ives' Colorado Exp." On referring to the report of Ives' expedition, we find *Abies Douglasii*, var. *macrocarpa* referred to from the mountains near San Felipe. The cone corresponds exactly with those obtained by Dr. Palmer. Further examination of the range of this form, and of the permanence of the peculiar characteristics stated is desirable, but it would seem from what we now know of it, that it deserves to rank as a new species, in which event no more appropriate name could be found than *Abies macrocarpa*.

Poultry Yard.

Poultry on the Farm.

Messrs. Editors:—To the farmer the profits of raising poultry must come from the sale of eggs and stock. To make it a good investment, the returns from the sale of these must be large enough to pay rathor more than the market price for the grain consumed, besides a good amount for the time and labor spent in caring for their wants.

As there are several different breeds of fowls it is of great importance to keep those bost adapted to the locality and conveniences of the farm, as also to fill the demands of the nearest market. If the fowl house or sheds afford good shelter, breeds can be kept with good results that would be an utter failure where there is no proteetion afforded from the weather. If the demand of the market is chiefly for fowls for the table, a breed should be kept that excels in its quantity as well as its quality of flesh—one that is easy to fatteu and reaches maturity very early.

If eggs soll best, keep breeds that are groat layers and poor or no setters; when both flesh and eggs are wanted, koep those that excel in both.

Again, if the farmer delights in having fine large stock and takes good care of it, he would be best pleased with the Asiatics, while only the smaller kinds should be kept when they are left to get their own liviug and take care of themselves, as they are of a roaming disposition, and would thrive where an Asiatic might starve.

Breed Characterislics.

Of the larger breeds, the Cochins and Brahmas are the most desirable. Theso are both large and heavy varieties, are very docile, and are good winter layers, though their proponsity to set in the hot season somewhat lessens the annual number of their eggs. When good feed and warm dry quartors are provided, uo breeds will show good care better than these.

For laying alone the Leghorns and Hamburgs surpass all others in the numbor of eggs; being non-setters they improve the time others use in setting and raising young. The Leghorns lay the larger egg of the two, and have yellow legs, while the Hamburgs are blue legged and their eggs rather small.

For both eggs and flesh we have the American breeds, the Plymouth Rocks and Dominiques, also the French Houdaus, Creve Cœurs and La Fleche. All these five are large bodied fowls and first-class layers. The French claim the finest quality of flesh, but they are black and white legged, and non-setters, while the American breeds are yellow legged and good setters.

Games are liked by a great many. They are good layers and excellent mothers; but their size and the color of their legs is against them. Bantams make nice pets, but they are not at all profitable.

There is a great difference between the several varieties of eaeh breed: Of the buff, Partridge, white and blaek Cochins, we have found the Partridge the best layers. They set loss thau the bufls, keep cleaner than the white, and surpass the black in size.

Of the Brahmas the dark are preferable. They are an improvement on the light, and, like the Partridge cochins, they are not such bad setters, consequently they are better layers and of a more business-like color.

The white, brown, black and Dominique Leghorns stand in general favor in the order in which we have named them. The first are the largest and lay the largest eggs, but their white plumage is easily soiled, and the colored ones are preferred by many. The Hamburgs come in for their share of favor as well as dislike. They will find their own living almost anywhere, and being great layers and non-setters they stand high with many, but their eggs and bodies being small they are not always favorites. In fact, it is hard to tell which breed would stand first were all interested to give their opinions.

Care and Feed.

Having decided what breed to keop the next move is to provide them suitable quarters for roosting and laying. The amount of shelter they need depends on the climate. When snow covers the ground part of the season it is nocessary to have a warm and especially a dry place for them to gather and stand out of the wind and wet. Keep their roosting place sweet and clean by the free use of lime and ashes. Good sized roosts, wide apart and not too high from the ground, are best. Let the place be well sheltered from winds and wet and well ventilated. Put nests in out of the way places, easy to get at, but away out of sight. Never have many eggs in them, as they aro apt to get brokon, and in this way hens often get into the habit of eating the eggs. It is very hard to break them of it. Feed food that will supply the most urgent want. If it is cold or wet weather feed warm, nourishing food. Corn is good, ground and scalded for the moruing meal, and fed whole at night. In the laying season feed grain and meat, or fat in some shape, and if kept shut up give plenty of green food, lime in any shape and gravel to grind their food. Always have an abundance of fresh, clean water; nothing goes further to keep fowls in a good, healthy condition. Have it handy and plenty of it. A variety of food is always better than any one kind, however good, fed altogether. Change their feed often and you may look for good results. Chickens like vegetables boiled and mixed with most anything, so that they can have something to peck at when not otherwise employed.

Breeding.

Get your chicks out early. They do better, grow faster, and are by far the most profitable; late ones always are a nuisance and serve to degenerate the stock. Always keep the earliest and largest for breeding. If any show signs of running down dispose of them before the breeding season. It is a good plan to shut up the liveliest cock and a few of the largest hens and keep their eggs for setting. Change roosters occasionally, as by breeding in and in one will soon ruin the very best stock.

In selecting hens for setting piek out gentle ones, not over large, and with small feet. Set in a large box or barrel, fill in with clean straw on top of about one foot of moist earth. Try first on two or three false eggs to see that the nest is all right, and when the hen seems satisfied with it, put nine to fifteen eggs under her, the number depending on her size. Better put too few than too many, for if one gets cold each day, all will in turn be spoiled. After putting a little lime and sulphur over the eggs and on the hen's back, leave her to herself, except occasionally see that others do not bother, and that she comes off to feed and water.

Young chicks, to make large birds, should be fed often, but only what they will eat up clean, soft food the first few weeks, after that small grain and meat occasionally. Do not let them roost too young, as it injuries them.

Procure good fine stock to start with of some reliablo breeder; better pay something extra and get that, then all is right. It is with poultry as with any other stock, if you take an interest in them you will strive to keep them as they should be kept and in this way make sure of good profits from them. Experience goes to show that no branch of farm industry pays better for the amount of capital invested than poultry raising, if carried on in a systematic manner.

G. G. Wickson, Jr.

Lyons, Wayne Co., N. Y.

Sheep and Wool.

Sheep in Georgia.

It will be interestiug to wool growers to read some accurate statistics carefully gained from the growers of Georgia. "A Manual of Sheep Husbandry in Georgia," is the title of a publicatiou from the pen of the Commissioner of Agriculture for Georgia, Thos. P. Janes, Esq. A series of questions were submitted to three of the wool growers in each county of the State, and from the replies submitted the commissioner compiled the following facts:

Of those who had tested crosses 98 per cent. reported the cross of the merino and native sheep the most profitable.

The average annual profit on the capital invested in sheep is 63 per cent.

The average annual cost per head of keeping sheep is only 54 cents.

The average cost of raising a pound of wool is only six cents, while the average for which the unwashed wool is sold is 33⅓ cents, or 27⅓ cents net.

An average of 74 lambs are raised for every 100 ewes, notwithstanding the ravages of the dogs.

The average yield of unwashed wool to the sheep is 434 pounds, which, at 27⅓ cents, gives an average clear income for each sheep of 94 cents.

The average price for lambs sold to the buteher is $1.87; the average price of stock sheep is $2.58 per head; the average price of mutton is $2.75 per head.

Ninety per cent. of the correspondents report dogs the principal and generally the only obstacle to sheep husbandry; 75 per cent. of them recommend the protection of sheep against the ravages of dogs by appropriate legislation; many report the business generally abandoned on account of the absence of such protection.

Sheep on the Farm.

At a late meeting of the Illinois wool growers' association, Mr. W. C. Flagg submitted the following propositions:

1. I think it is demonstrable as a general proposition, true of nearly all kinds of farming, that nearly every kind of domestic animal, up to a certain limit, can be kept more profitably than it can be dispensed with, by all farmers. It can be kept, so to speak, without any expense beyond personal care, because it feeds upon products that would otherwise be wasted or sold at a low price. Take cattle, and we know that throughout Central Illinois a considerable body of farmers have been selling their cornstalks after the corn is gathered at such a low price as to make the keeping of stock cattle through winter less than their summer pasturage. We know that throughout the State large amounts of straw are annually burned that might be made to pay from two to five dollars a ton as feed for cattle and horses. During the year 1874-75, as I was informed, in one portion of Missouri, where the wheat crop was exceptionably good, the horses and other stock were sold at very low prices, because they had no feed in the following winter. The farmers of that region had not stacked their straw. Your own experience and observation will show you, that in all parts of our State great quantities of farm products that would go to feed and grow animals on the farm are burnt, wasted or sold at low rates.

2. This is still more true of sheep. The sheep, as we all know, is a more gentle feeder than any domestic animal, except the goat, and eats nearly every vegetable product with a good relish, including, I am sorry to say, in the case of certain old and perhaps wiser sheep, apple bark, *au naturel*, from the tree, taken, perhaps as a tonic. The weeds are generally eaten as readily as the grasses. Of the weeds more common with me, they seem to absolutely refuse the horse nettle and the poke weed, and do not quite like the Jamestown weed and Indian mallow, although they do browse both a good deal. This taste extends to dried weeds found in hay or straw, and makes them practically omnivorous of vegetable matter. This general taste makes the sheep a very useful animal in utilizing otherwise waste products of the farm. He browses the hazel brush and kills out the wild grasses for the emigrant. He gets abundant food from the scattered grain and springing weeds of the grain stubble. He cleans out the late springing weeds and strips the lower blades off among the ripening corn. He is a good scavenger of weeds and fallen apples in the orchard, and in doing all this he is making mutton and wool out of weeds and waste. The cost of keeping, up to the point where all this waste matter is consumed, consists only in the incidental expenses, and the returns are manure, mutton, wool and increase.

Wool Growers' Association.

On the first day of the present month the wool growers of San Diego formed an association to advance their mutual interests. Mr. C. Deleval was elected president, and P. Bolan secretary. A statement was presented by County Assessor Shaffer, showing the growth of the wool interest as follows:

Year.	No. Sheep.	Assessed Value.
1872	40,815	$ 46,592.00
1873	70,295	101,680.00
1874	86,517	158,246.00
1875	236,634	334,917.00
Total valuation		$ 641,435.00

The object and beliefs of the new society are best shown forth in the following resolutions, which were unanimously adopted:

Whereas, As appears from the assessment roll of the the county of San Diego, the growing of wool is the leading industry of said county, and from the nature of the soil and productions of said county, it is likely to continne to be of great importance to the commerce and welfare of Southern California, be it

Resolved, 1. That, for the better protection of their interests, and in furtherance of a better understanding, and of the common welfare of the persons engaged in wool growing in the county of San Diego, it is highly important that an association of said persons be formed.

Resolved, 2. That the members of the Legislature of the State of California, and the members of Congress of said State, be memorialized as to such legislation as may be proper for the better encouragement of wool growing in Southern California.

Resolved, 3. That it is the proper duty of Congress to so amend the revenue law of the United States, so that American citizens and those having declared their intention in good faith to become such, can have their sheep and stock manifested on passing over the Lower California line by the Collector at San Diego, and can return the same, or the produce th reof, under oath, for shipment free of duty the same as though sheared on this side of the line.

Resolved, 4. That it is not our desire to conflict with any other of the growing industries of this county, but we believe from the general nature of the county, that wool growing is destined for all time to be a paramount interest, and that no monopoly of the soil or water should be granted to any individual interest, but that laws should be framed carefully to conserve the general interest, always favoring that industry which has demonstrated itself as the most practicable and valuable.

Stock Breeders.

Good Care and Good Stock.

The man who buys improved stock, with the expectation of having them do well under neglect, will be disappointed. In fact, generally, the animal best adapted to profit under good treatment, will not endure as much hard treatment as an inferior specimen. The "natural" animal is well fitted for seeking its own food, for fleeing from or fighting its enemies, for resisting storms, etc. The highly improved animal can do none of these things as well as its wild ancestor, but it will give more meat, milk or wool. The man who buys an inferior animal because it has a long pedigree is not wise; but he also makes a mistake who attaches no importance to the character of the ancestors. Breed is not everything; neither are good food and care all that is wanted. Good care given to good stock is what is needed. Good care will help poor stock, but the profits will be greater if the stock be also good.

It would be possible, if one worked long enough, to produce a race of heavy draft horses from Shetland ponies; but one lifetime would not be long enough to well finish the work. It would be possible to produce a breed of large fowls from Seabright bantams. In a scientific point of view either work would have interest and value, but in the line of money making it would pay better to make use of what has already been done. Commencing with very common stock, injured by careless breeding and bad treatment through several generations, a farmer may, in time, produce excellent animals, without drawing from what are called the improved breeds. But this work is slow. Extra feeding will do much; excessive fat will hide deficiencies, but there are deficiencies which fat will not hide, and which can only be modified by efforts continued through successive generations. No amount of food or care will give the size or form of an average Shorthorn to a Jersey calf; all the efforts of the most skillful horsemen cannot make a good draft horse of a thoroughbred (running) colt; a "native" sheep may be fed so it will reach large size, but it will not have the form or the wool of a Cotswold, and it will take more than one or two or three generations to develop the "woods hog" into an animal that will please a practical hog man.

And so we will hold that it will well pay farmers to avail themselves of what others have done. If a neighbor farmer has been very successful in feeding hogs, and has stock which suits, why should not his work be made use of? He may or may not have cared for a name; if he has, for several years, selected his breeding stock with reference to desirable qualities, has cared for them well, and has succeeded in getting the produce to be of nearly uniform excellence, he has done just that which other men have done in producing the best breeds of hogs. The hog raisers of Southwestern Ohio, some years ago, cared much more for getting hogs that suited them than they did for names of breeds. After a time their success attracted attention, and then a name was needed for hogs possessing the qualities they had worked for.

In breeding hogs, nearly all desire the same general charactoristics. There are differences in size, in earliness of maturity, etc., but the same general object has been kept in view by all good breeders—adaptability to the production of meat. In the other domestic animals there is much greater divorsity. In sheep, we look both to the flesh and the wool, and the wool may be of widely different quality; in cattle we may look for either meat or milk; in horses we may seek fast movement or great strength. So there is great need in these of being sure we are breeding from the right kind of animals, and it is a great help to know that those we select have been bred for several generations with reference to adaptation to certain purposes.—*Western Rural.*

Regulations for Importing.

The Treasury Department has issued, in circular form, the following extract from article 383 of the regulations of the department, for information of persons intending to import, for breeding purposes, animals from "beyond the seas:" To admit to free entry animals from beyond the seas, when imported for breeding purposes, the owner thereof will be required to produce to the collector at the port of importation a certificate from the United States consul at the port of shipment, showing that the animals are, to the best of his information and belief, intended for such purpose, and also a statement of the owner under oath that the animals were purchased abroad and imported into the United States especially for breeding purposes. The collector must also be satisfied that the animals are of superior stock, adapted to improving the breed in the United States. Custom officers are required to rigidly observe the provisions of said article; and should the certificate mentioned therein not be presented on the entry of the animals at the custom house, it will be necessary for the importer to give a bond, with satisfactory sureties in a penal sum of not less than twice the amount of estimated duties, conditioned for the production of such certificate within a specified time. To avoid this inconvenience and the attendant delay and expense, it is respectfully suggested that importers of such animals obtain, prior to importation, the requisite consular certificate for production at the time of entry. The term "beyond the seas," as used in the regulations, and in the law on which they are based, embraces all territory beyond the limits of the United States.

Important Postal Decision.

Many merchants in various cities of the country having been in the habit of sending out papers devoted to special interests, in their own name, printed boldly on the wrapper, addressed "in the care of" their customers, at the regular pound rate chargeable on daily papers, the question was submitted to the Postoffice Department, and the following decision has just been rendered:

"That a nowspaper or periodical sent by mail to a regular subscriber implies not only the name of the subscribor, but his residence or place of business also. When a subscriber is temporarily absent there would be no objection to sending his paper at the pound rate to the place where he may be temporarily sojourning, but when papers are addressed to subscribers at places where they have no permanent or temporary residence or place of business, with an evident intention to defraud the government of the legitimate rate of postage to which such papers are subject, they should not be delivered until postage has been paid thereon at transient rates, notwithstanding they may be sent to the care of some other individual."

Leaves of the pine-apple, now being extensively cultivated in the East Indies, are turned to account by being converted into a kind of wadding, which is used for upholstering instead of hair. A sort of flannel is also manufactured from them, from which substantial waistcoats and skirts can be made.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are at No. 6 Liedesdorff street, in rear of the Grangers' Bank of California, No. 415 California street San Francisco.

The Grangers' Business Association of California is at No. 351 Market St.

Grangers' Business Association of California.

Notice of Annual Meeting of Stockholders.

The Annual Meeting of the Stockholders of the Grangers' Business Association of California, for the election of Directors, will be held at the office of the corporation, in the building at the north-east corner of California and Davis Streets, in the city and county of San Francisco, on Wednesday, the sixteenth day of February, 1876, at the hour of ten o'clock in the forenoon of that day.

T. J. Brooke, Vice-President. William Vanderbilt, Secretary.

New Constitution and By-Laws.

We have the amended form of the Constitution and By-Laws and Rules of Order of the State Grange: the Declaration of Purposes, Constitution and By-Laws of the National Grange, and blank form of Subordinate Grange. Constitution and By-Laws now printed in one pamphlet. Granges supplied at five cents per copy, post paid, from the Rural Press office, San Francisco.

Grange Directory.—We have concluded to postpone the printing of our Grange Directory until the first week in February, in order that it may embrace the records of elections in the several Granges which are now coming in each week. At that time we shall give a full list of the officers of the State Grange, Deputies names of Councils, Subordinate Granges, Masters and Secretaries.

Election Returns.—Secretaries will please send us, as early as possible, the result of their election of officers. Write plainly (on one side only) in the following form:—"Napa Grange, No. 1, Napa City. Election, Dec. 4.—J. B. Saul, M.; J. W. Ward, Jr., O.; Harry Haskell, Sec.;" and so on, giving a full list and also the names of trustees and business agent. We should like to receive further correspondence from Secretaries

New Grange Officers.

We are now publishing, from week to week, the results of the elections for officers of the Subordinate Granges of this State. The list will soon be completed, after which more space will be allowed for miscellaneous matters of more general interest in our Grange department. In connection with the announcement of these elections, we often receive from Secretaries some general remarks in regard to the progress which their individual Granges have made during the past year, and in almost every instance such reports are of an especially encouraging nature. They indicate that there has never been a season when such meetings have been more harmonious or when greater evidence of earnestness and interest has been manifested in behalf of the progress and improvement of our Order.

Among the re-elected, so far as our personal knowledge goes, we notice none but good men and true, while the new names which appear have doubtless been selected with due regard to their fitness for the places which they have been called upon to fill. As we become better acquainted with each other and with all, the judgment which comes from such better acquaintance is made to tell for the interest of our organization. It is this "better acquaintanceship," as Sister "C. A. C." remarks, that makes our Grange life better, more enjoyable and of more value from year to year. Let us then continue to devote ourselves more earnestly and more unselfishly in aid of the great and good cause in which we are engaged. Truly we have been blessed beyond our most sanguine expectations in the consummation of our organization, where we may unite in the consideration and enunciation of the great principles of fraternity in a manner and with a reality never before presented to mankind.

Our organization is one which has built itself upon the foundation interests of our State and country; one which binds together the home-life interests of a people with a golden chain that unites hand to hand and links heart to heart in one common cause, whose paramount object is to strengthen and preserve the peace and purity of the family circle and unite strangers in one common brotherhood. It is a movement by the people, of the people and for the people. Let us never weary in keeping bright every link of the chain which binds us together in this great and good work.

Worthy Master's Decision.

Messrs. Editors:—If the time for which a demit card is granted fully expires before application, I am not aware of any authority which would justify me in extending the time. The fact of the brother permitting the time for which his demit card was granted to expire before presenting it for application, by virtue of the condition therein contained, severed his connection with the Order. He can be reinstated only upon application in the usual form, accompanied by the usual membership fee.

J. V. Webster, M. S. G. C.

Important Grange Movement.—The Institution to be Planted in England.

At the last annual meeting of the National Grange the Committee on Foreign Relations made a report favoring the introduction of the Grange into Great Britain, and the Master of the National Grange was authorized to appoint a deputy to carry out the project. In accordance with such power, Bro. J. W. A. Wright, of this State, was appointed to this work, and will thus be the first to inform the farmers of the Old World in regard to the objects of the Grange and the great work it is doing in this country.

The labors of Bro. Wright in behalf of the Order in this State are well known, and we feel assured that the work entrusted him could not have been put into more efficient hands. Mr. Wright was to have sailed from New York the present week.

It is the belief of prominent members of the Order that by union and co-operation, the farmers of this country and Great Britain can do much to enhance their material interests and advance the general good and usefulness of the Order. This effort for the establishment of the Order in England cannot fail to be gratifying to Patrons and the friends of the institution everywhere, and we wish Bro. Wright the fullest success in his undertaking.

Under the rules of the Order, when fifteen Subordinate Granges are organized in a foreign country, they are competent to organize as an independent body into what is known in this country as a State Grange; but which in England will probably be termed Provincial or District Granges, which, in turn, will organize a National Grange. The body or bodies so organized will not be considered as owing any allegiance to the United States National Grange, but will stand upon their own footing, acting only in fraternal union with other like bodies in this or other countries.

The English Agricultural Interest.

In this connection many of our readers will no doubt be interested in the following facts with regard to the farming interests of England, which we clip from the Louisville *Ledger:*

The farming interests of England may be divided into three classes, viz: The land owners, consisting of the nobility and wealthy squires; the farmers, or those who rent the lands, and the agricultural laborers, or those who are employed by the farmers. Of these three classes the Grange will appeal more directly to the second one. The farmers of England are still suffering from the effects of unjust laws, which discriminate in favor of the owner of the land and against the tenant. These laws give the legal right to do that which custom sanctioned in the days of feudalism. Then the nobility were all-powerful, and they asked for no law other than their own will. For years the farmers have striven against this injustice, and sought to obtain aid by appeals to Parliament, but in vain. Their efforts were "dispersed." They did not unite in a solid body and mass their strength for the attack, but skirmished here and there, and were, as a natural consequence, defeated.

Prominent among the acts of legislation which they have striven for, we may mention the "tenant right law," and the "game law." The first is a demand for a law requiring the land owners to compensate the tenants for costly improvements which the interests o good farming demand that they may make upon the land which they have rented.

The second advocates a change in the game law. Hitherto this law has been altogether in favor of the land owner and against the farmer. It enabled the former to preserve game upon the land which he had rented, and to hunt it upon all occasions, often to the

Utter Destruction of the Crops.

The absurd injustice of this will be seen at a glance, and yet the victims have not, as yet, been able to secure a law to protect themselves and their property from the calamity which may fall upon them at any time.

The farmers of England are intelligent and educated men, and thoroughly abreast of the advanced principles of scientific agriculture, and through the Grange they would be enabled to combine and obtain those legislative privileges which are so necessary to their interests. They are strong in numbers, and all that is necessary to give them protection is a utilization of their strength by union.

The Patron's Helper.—The *Patron's Helper*, Des Moines, Iowa, is the true Patron's sincere friend. It is a steadfast promoter of the principles of the Order, and is in a measure a national representative of the organization. It is worthy of the friendship and support of the Granges. J. R. Smedley, Master of the Iowa State Grange, one of the ablest Grange writers in the country, is a member of the editorial staff.

"From the Granges."—The large number of reports from the various Granges which are crowding in upon us just at this time, renders it necessary that we should cut them down a little in some instances, while many, for the same reason, are delayed. All will appear in due time.

From the Granges.

Merritt Grange,

Messrs. Editors:—On the occasion of the installation of officers, Merritt Grange, No. 7, held a public session, inviting Wellington Grange to assist and rejoice with us. The state of the roads rendered a general attendance impossible, yet a goodly number were present; and after installation by Bro. Hawley, the overladen baskets were brought in, and—well, you know what follows on such occasions. But you should see to know how this desert land can be made to blossom with the good things of this world. After feasting, the dance was called, and after a temperate indulgence in this, we resolved that each regular meeting should be like this, a social festival and harvest feast without the dancing. We are weak in numbers, but strong in will to accomplish the objects of the Order. K.

Mason Valley, Nev., Jan. 10th, 1876.

Installation at Plymouth Grange, Amador Co.

Messrs. Editors:— On New Year's day Plymouth Grange held a harvest feast, and many invited guests were present to partake of the good things which the Matrons of our Order know so well how to prepare. Most of the members were present, and after partaking freely of the good things provided and enjoying a good social "time," our District Deputy, H. Vanderpool, called to order and proceeded to install our new officers.

The harvest feast is a feature in our organization which, if properly conducted, results in much good. It certainly promotes good feeling among those who assemble on such occasions, and if discretion is practiced in extending invitations to those who are not common enemies to the Grange movement, it is sure to bring many good men and women into our organization.

Those who are continually finding fault with our Order and can see no good in any of our social festivities should not be "urged," even by a polite invitation to attend, however much their hankering after roast chicken and turkey, pies and cakes may be. The mining population predominates in this region, and where so large a proportion of the community are ineligible to membership it creates a strong opposition, which it is difficult to overcome; but with all the opposition brought to bear against us we are gradually gaining ground and increasing in numbers. We are watching, working, waiting for the time not far distant when every farmer will see that it is to his individual interest to join in with the great fraternity whose voice will be heard in the grand councils of the nation, proclaiming freedom for the "tillers of the soil" from the thralldom of corporate powers. S. C. Wheeler, Sec'y.

Installation at San Bernardino Grange.

Messrs. Editors:—To-day the San Bernardino Grange, No. 61, held their regular weekly meeting at Boren's hall. It being the occasion of the installation of officers and New Year's day, the Grangers determined to make it one of social enjoyment and good fellowship. For this end a sumptuous repast was spread upon two tables the full length of the hall, which fairly groaned beneath the weight of the good things placed thereon. As the various dishes were furnished by different lady members the variety was almost endless, consisting of every class of viand, from the orthodox pork and beans of New England to luscious strawberries, the peculiar winter product of Southern California. Among the dishes was a beautiful cake, presented by Mrs. Dr. Shelton, on which was a well wrought design representing a plow resting under the folds of the American flag, with the letters P. H. on either side.

After a benediction by the Chaplain, the assembled guests fell to discussing with a vim which must have been flattering to the providers, while jokes and repartee lent their aid to its enjoyment. The dinner was interspersed with choice performances on the organ, and altogether, was one of the most enjoyable affairs we have ever attended. T. D. Henry, Sec'y.

Installation at Nicasio Grange.

Messrs. Editors:—Nestled in a beautiful vale in the county of Marin, surrounded by green hills, pretty groves and murmuring streamlets, gently lies the little hamlet named Nicasio, with its large and imposing hotel, its neat little church, its store and Grange hall, all of which, together with two pretty cottages, constitute the town of that name. It is reached by the North Pacific Coast railroad and a short ride of four miles by stage over a picturesque road, but oh! how muddy just now. It was here that we found ourselves last Saturday evening, by invitation of Nicasio Grange to install its officers. It is needless to say that we met with a warm and cordial welcome from the brothers, yea, and from the sisters, too. Indeed, this is one of the beauties of our Order, for though I had never before seen a member of that Grange, except Past Master Taft, yet I soon found myself as one of them, and as if I had always known them. The Grange hall was tastefully and beautifully decorated with evergreens, pictures, various ornaments and symbols of the Order. Over the Lecturer's seat were two doves, one of which, in the attitude of flying, hold in its beak an olive branch, symbolic of "Peace and good will towards men." At the head of the hall, in front of Ceres, Pomona and Flora, on a nicely decorated stand, stood a large grey squirrel with the sash and pouch of a full fledged Granger, and at the other end of the stand was a pretty dove with a Matron's sash around its glossy neck. We tried to solve the meaning of these emblems, and finally concluded that they were emblematic of the friskiness of the brothers and the gentleness of the sisters.

The Grange was called to order at 7 P. M. for the transaction of business, and we were much pleased to note the able manner in which the Grange work was performed, the more so because this Grange had received but little instruction, and though organized for more than two years, had never before been officially visited, thus reflecting much credit upon the ability of its officers and the intelligence and zeal of its members. After transacting their business, the gates were thrown open for a public installation, and the hall was soon crowded with their friends. The newly elected officers were duly installed, after which all were invited to partake of a bountiful collation, prepared by the good sisters of the Grange, which was vastly enjoyed by all.

The sounds of music attracted our attention, and it was announced that a dance was next in order; thus the festivities were continued until the Worthy Master's gavel proclaimed the midnight hour, and thus ended our pleasant visit to Nicasio Grange. T. H. Merry, State Deputy.

Christmas at Florin Grange.

Messrs. Editors—I have just been reading Sister Carr's pleasant description of the Christmas entertainment at Elk Grove Grange, and it started in my brain the desire to tell you a little about our doings at the same festive season. Like our neighbors at Elk Grove we have the privilege of renting a new, capacious and well ventilated hall, 60 by 30 feet, with a convenient festival room beneath it built at a cost of $3,200, on the co-operative plan, in shares of $10 each, and inaugurated on Christmas eve by a ball and festival, which, notwithstanding the rain and mud, was largely attended. On Chrismas day we held our first regular Grange meeting in the new hall, and after transacting business adjourned to the festival room, there to find the tables quite profusely laden with the necessaries and luxuries of life. The sisters were unsparing in their attentions to make all happy, and I am sure by the looks of everybody that success crowned their efforts. We are now entering upon a new and better class of conditions than we have been working upon, and if we do not mistake the signs of the times, Florin Grange will ere long become the banner Grange of the State—neighboring Granges had better wake up and put on the steam or they will be left behind. On the 8th inst. our installation of officers for the ensuing year took place, and we had a remarkably pleasant time. Members of neighboring Granges came in large numbers to honor us with a fraternal visit, cheering us with their smiling faces. At the close of the installation, guests and members retired to the festal room, where the best of everything in abundance was awaiting their disposal. The young people had a dance in the evening.

Old Creek Grange Installation.

Messrs. Editors:—I submit a report of the good time we had on Christmas in installing publicly the officers of Old Creek Grange, No. 26. The services of our worthy brother A. J. Mothersead, of Moro City Grange, was secured, as installing officer. At an early hour our Grange hall was filled with our own and members of sister Granges and friends of the cause, all intent on having a good time. As soon as the regular business was got through with the doors were thrown open and the sisters commenced taking out the contents of sundry boxes, buckets, pans and even tubs, with which a bountiful repast was spread.

The tables were filled, refilled and filled again with Grangers and their friends, and about three o'clock the seven baskets of fragments were gathered up, and the installing officer proceeded with his labor; after which, we were edified with speeches from Bro. Mothersead, Mr. Kirkpatrick, Mr. Victor and others.

Taking it all in all, it is a day long to be remembered, and I think a harbinger of much good to the cause. At our next meeting we start a class of five. C. S. Clark.

Jan. 7th, 1876.

Sacramento Grange.

Messrs. Editors: — Sacramento Grange passed a pleasant day at the installation of her officers for 1876, on the 11th inst. The sisters were on hand with ever a ready hand, and spread a bountiful feast which all partook heartily, and a general social feeling prevailed throughout. Worthy Master W. S. Manlove did the honors of the day, and on retiring thanked the Grange for their kindness shown him throughout his third term of office—and wished them success under their newly elect officers for 1876. In spite of wind and rain those who appreciate the social as well as the laboring of the field stemmed the swift current after the raging storm to be ready at the work of action, and help their colaborers in pruning and clearing the dead matter off the field.

Farmers, generally, feel well pleased at the present outlook, and expect a bountiful yield. They are sowing alfalfa on the plains and irrigating it for stock use. Many contemplate doing this in the spring. Some fields that

have been riddled by the gophers will be resown. Warm rain and light frost has hastened the growth of grain. Small fruit men have fears that the crop may prove light, because of the continued blossoming, so late through the winter. Strawberries and raspberries were picked in December. Orange and lemon trees have made an extraordinary growth and the tips are still green and growing. The fruit is of good size and the skin becomes thinner the longer they remain on the tree; they need shelter from the north wind and grow best in level ground. Dates from the seed are growing well. Pecan nut trees succeed here. There is no reason why all tropical fruit may not grow by careful attention. G. R.

Sacramento, Jan. 12th.

Installation at Walnut Creek Grange.

MESSRS. EDITORS: Our Grange held its first meeting of the Centennial year on January 1st. Bros. Blanchard, Merry and Thompson were expected to be with us, but owing to the inclemency of the weather, no doubt, and the fearful condition of the roads, failed to put in an appearance. But storms, fog, cold and mud failed to prevent the attendance of a goodly number of brothers and sisters intent on the welfare of the Order. After the regular routine of business, the third degree was conferred upon a worthy sister, after which the Grange adjourned to partake of a harvest feast, where full justice was done to a beautiful and bountiful spread prepared by the skillful hands of the worthy sisters. May they live to enjoy another Centennial New Year's feast—every one of them. After the feast the fourth degree was conferred upon a brother, who was late in arriving, and then the officers elect for 1876, with the exception of Ceres and Flora, were duly installed. And let me say right here, Messrs. Editors, that the election and installation of officers comes in the wrong time of the year, and the time for holding the same should be changed. On both occasions a full attendance is desired, and that is impossible unless we have fine weather and good roads. I believe that a better feeling prevails in this Grange than ever before, notwithstanding the heavy losses of many of the members through the failure of Fassett, McCauley & Co.

The PRESS is more welcome than ever in its new form, and I hope to send you some solid acknowledgements in a short time.

Very truly, OCCASIONAL.

West San Joaquin Grange.

MESSRS. EDITORS:—West San Joaquin Grange, No. 3, met for the installation of officers for 1876 on January 1st. The attendance was full and the meeting spirited. An address was delivered by the retiring Master, C. E. Needham, which was greatly enjoyed. He alluded to the various points which have arisen during his conduct of the Grange, and among other things drew a picture of coming prosperity to this region, which will be interesting to your readers. He said:

"It might seem strange to some that we, as Patrons here on the west side of the San Josquin river, should try and keep up our organization as Grangers, having, as we have had for the past few years, a continuation of drouths; so much so that it has been almost impossible for us to pay our taxes and necessary expenses. I say it may seem strange that we as a Grange should try to accomplish anything. But, brothers and sisters, I can now look forward in my mind's eye a few years hence, when these desert plains shall have a canal running through the whole length from Tulare lake on the south and east to tide water on the west, and this valley then will he dotted with beautiful homes surrounded with orchards and vineyards, and will blossom like the rose. I do not say that we shall all enjoy colossal fortunes in this valley, but I have no doubt many of us will live to own and enjoy our little homes, and can sit under our own vine and fig tree, and there will be none to molest and make us afraid. I say when these things shall have come to pass, who shall then say that this sturdy handful of Patrons belonging to West San Joaquin Grange, No. 3, did not or was not the means of bringing this great revolution about? For did not the idea of irrigation on the west side germinate in this Grange, and has it not been fostered and petted and kept alive, until to-day it is in the minds and mouth of all the public men; and is it not the common theme for publication in all our public journals throughout the entire State of California?" *

Installation Ceremonies at Stockton.

MESSRS. EDITORS:—The officers of Stockton Grange were duly installed on Saturday last, by Bro. J. V. Webster, Worthy Master of the California State Grange. The ceremonies were preceded by a harvest feast, at which ample justice was done to the eatables. This breaking of bread together has a tendency to promote good feeling and cement friendship; especially is this the case when strangers, hungry and wearied, are the recipients of your bounty, as happened to be the case when Bro. Webster met us, after his trip from San Francisco on Saturday last, just as we were ready to sit down to our tables. He was *some* hungry, and we were glad of it, for when you get any one in that condition and feed him well, when next he sees or thinks of you, he mentally exclaims, "I was hungry and you fed me." You have then got him right where you want him. He is your friend for life.

Well, we all became acquainted with Bro. Webster in a few minutes, and liked him, too. After dinner we repaired to the adjoining room, where the Worthy Master explained to the members present and invited guests the principles, purposes and working of the Order. We then proceeded with the installation, which was conducted by Worthy Master Webster in a very impressive manner.

Persons present not entitled to remain with us when the Grange was in session, then retired, the Grange was duly opened, and Worthy Master Webster gave us an account of the proceedings of the National Grange, and, also, what is transpiring at headquarters in San Francisco. He also illustrated the working of co-operative system on the Rochdale plan. When he concluded, we were satisfied that we have got the right man in the right place. We would have been glad to have listened to him for hours, but most of our members living in the country, and the roads in a deplorable condition, we were obliged to close earlier than we desired.

As there were some errors in the list of officers elect of Stockton Grange, as published in your paper of the 25th ult., I will furnish you with a correct one. Wm. G. Phelps, M.; J. B. Harelson, O.; D. A. Learned, L.; Wm. Kuhl, S.; Chas. Kuhl, A. S.; C. M. Beecher, C.; Israel Lander, T.; Miss Julia E. Allen, S.; J. L. Beecher, Jr., G. K.; Mrs. Wm. B. West, Ceres; Mrs. A. Wolf, Pomona; Miss Martha Harelson, Flora; Mrs. Wm. L. Overhiser, L. A. S. Brother Jas. Marsh was elected trustee for three years and D. A. Learned to fill the unexpired term of one year. WM. G. P.

Stockton, Jan. 17th, 1876.

P. S.—I notice by the RURAL that Bro. Webster was to meet with Temescal Grange on Saturday. No doubt they were greatly disappointed. They will have an opportunity to exercise one of the cardinal principles of our Order (charity), and remember that their loss was our gain; and it would be a great gain if every Grange in the State could have Bro. Webster meet them. P.

Installation at Tehachipa Grange.

MESSRS. EDITORS:—"A Happy New Year." We have heard the above all day, as were gathered in our hall of meeting, where we were convened to instal our officers for the ensuing year, which ceremony was conducted by Bro. J. Norboe. After the ceremony the members, visiting members and outside guests regaled themselves with a harvest feast set by the lady members. After partaking of this feast and witnessing the beautiful ceremony of installation, we all went home feeling a deeper interest in the Grange than ever before. P. M. N.

Installation at Galt Grange.

MESSRS EDITORS:—The officers elect of Galt Grange, at Galt, were duly installed January 1st. After the ceremony of installation we had the pleasure of listening to an able and appropriate address delivered by our Worthy Master for the good of the Order, which was followed by a grand harvest feast, at which the tables were spread with everything heart could wish, and judging from the contents we would say that there must have been quite a consumption of fuel in the culinary department, and also some cackling done in the poultry yards the day before. All of the members seemed to manifest a lively interest in behalf of the Grange, and we look forward to the day, and hope it is not far distant, when Galt Grange will be numbered among the first in the State.

Respectfully yours, GRANGER.

Elmira Grange.

MESSRS. EDITORS:—Elmira Grange, No. 15, had their installation and dinner on New Year's day. The officers were all installed by Past Master Bro. J. A. Clark, assisted by Bro. Bond, formerly of Healdsburg Grange. After the installation, which was public, the Patrons and their invited friends partook of dinner prepared for the occasion. It was a liberal feast, as could be vouched by the basketfuls of good things left untouched after all had feasted. The roads were very bad, and the rains the night before disappointed many who lived at a distance. MRS. J. A. CLARK, Sec'y.

Elmira, Solano Co., Jan. 11th, 1876.

Temescal Grange.

Worthy Master Webster gave way to the urgent request of Bro. W. L. Overheiser and installed the officers of Stockton Grange last Saturday. He was sincerely missed from Oakland, but knowing his stay would be transient in the asylum city Temescal made the best of it, and as "all is well that ends well," had an enjoyable occasion, winding up with basket lunch, cream and coffee, and brief speeches. Three candidates took the first degree. The officers (who are general favorites,) were installed by Past Master A. T. Dewey.

Los Angeles Grange.

MESSRS. EDITORS:—Los Angeles Grange, No. 26, elected S. A. Waldon Master, and J. Q. A. Stanley, Secretary, for the ensuing year. * *

[Please send us the balance of the officer list.—EDS. PRESS.]

Walnut Creek Grange.

MESSRS. EDITORS:—Walnut Creek Grange has received a communication from a Grange in San Diego county, asking for assistance to enable them to build a Grange hall. Have you any knowledge of the matter? If the call is general and likely to be responded to, individual members of this Grange are willing to contribute their mite. If you wish to publish this, it is at your disposal.

R. M. JONES, Sec'y.

[We do not know anything about the San Diego Grange referred to—not even its name; but think that neither Walnut Creek or any other Grange should entertain such a request as the above from a distant county, until the matter has first been referred to headquarters. —EDS. PRESS.]

Enterprise Grange.

MESSRS. EDITORS:—Enclosed find names of Trustees of Enterprise Grange, No. 129: H. Cronkite, A. A. Nordyke, and Wm. Birch.

Brighton, Jan. 15th. A. ROOT, Sec'y.

From Rio Vista.

MESSRS. EDITORS:—At this time of the year accounts of the weather at different localities are always interesting. During the week preceding Christmas the weather in this vicinity was delightful and the farmers seemed glad. When a blustering rain arrived on Christmas eve it was welcomed as gladly as the previous warm weather, notwithstanding its disagreeable features. Grain is growing so finely and prospects are so encouraging, that the Granger and those dependent upon him (all are dependent upon him) are bright and joyous, whether it rains or shines. In accordance with the general rule we had rainy weather during the holidays. It is raining very hard at the present time, and as there are always a few decisive weather prophets to make conversation agreeable and dispel doubting conjectures, it is commonly agreed that January will this time be a rainy month. A stormy January is desired, because it renders a very dry spring almost impossible. The best indications up to the last of December have been followed by failures, in consequence of the "beautiful weather" in January. Those who have been industrious have fine crops growing, and will rejoice when harvest yields them their reward. Those who have theorized wrongly will sow their grain when January's cloudy days are past. AMPHION.

Rio Vista, Solano Co., Jan. 4th, 1876.

SANTA ROSA GRANGE.—J. A. Obreen, ex Secretary of the Santa Rosa Grange, No. 17, writes as follows: "The Grange is in a good and prosperous condition, meetings are well attended, and are very interesting; outlook is encouraging for increase of membership this spring. We will never weary of well doing."

Election of Officers.

BISHOP CREEK GRANGE, No. 211, BISHOP CREEK, INYO CO., CAL.—G. W. McCrosky, M.; J. C. Mills, O.; L. Arrison, L.; H. G. Plimly, S.; G. M. Clark, A. S.; M. H. White, C.; Ed. Powers, T.; Geo. Collins, Sec'y; G. C. Gracy, G. K.; Mrs. Holmes, Ceres; Mrs. M. A. Clark, Pomona; Mrs. McCrosky, Flora; Mrs. Cromwell, L. A. S.

CARSON VALLEY GRANGE, No. 3, GENOA, NEVADA.—T. Irvin, M. (P. O., Sheridan, Douglas Co.); J. Park, O.; H. Tucker, S.; W. Gibbs, C.; Miss E. Cook, L.; R. J. Livingston, Sec'y; A. R. Brockless, T.; W. H. Bull, A. S.; W. Park, G. K.; Miss E. McCue, L. A. S.; Miss J. Bull, Ceres; Miss M. Jones, Flora; Mrs. T. Irvin, Pomona.

ELK RIVER GRANGE, No. 104, HUMBOLDT CO., CAL.—Election, December 4th. Theo. Meyer, M.; R. A. Haw, O.; Mrs. F. L. Meyer, L.; F. S. Shaw, S.; J. Gardner, A. S.; A. C. Spear, C.; A. Swain, T.; Miss Ella Williams, Sec'y; W. Tierney, K.; Mrs. A. Knapp, Ceres; Mrs. S. Gardner, Pomona; Mrs. R. A. Haw, Flora; Miss S. Shaw, L. A. S.; Trustees, D. Fields, A. J. Knapp and A. C. Spear; Business Agent, Theo. Meyer.

FARMINGTON GRANGE, No. 185, FARMINGTON, SAN JOAQUIN COUNTY.—Election, December 24th: J. R. Heny, M.; C. A. Rogers, O.; J. M. Shafe; L.; D. S. Austin, S.; J. R. Owens, A. S.; J. M. Groves, C.; Wm. St. John Rogers, L.; E. O. Long, Sec'y; C. H. Patterson, G. K.; Mrs. S. Rogers, Ceres; Mrs. C. Henry, Pomona; Miss Emma Anthony, Flora; Mrs. G. W. Andrews; L. A. S.

FRANKLIN GRANGE, No. 147, FRANKLIN, SACRAMENTO COUNTY.—Election, Dec. 11th: Wm. Johnston, M; W. S. Runyon, O.; J. M. Stephenson, L.; R. M. Daniels, S.; P. P. Killbourne, A. S.; J. W. Moore, C.; P. R. Beckley, T.; Sister S. G. Bradford, Sec'y; Thomas Anderson, G. K.; Mrs. E. V. Pockman, Ceres; Mrs. M. K. Runyon, Pomona; Miss Belle Johnston, Flora; Mrs. A. E. Bradford, L. A. S.

FUNK SLOUGH GRANGE, No. 99, COLUSA COLUSA COUNTY.—Election, Dec. 18th: G. H. Abel, M.; J. G. Wolfe, O.; J. W. Daly, L.; T. B. McDow, S.; E. C. Hunter, A. S.; T. D. McDow, C.; A. L. Fulton, T.; Miss Ida Fulton, Sec'y; J. D. Rice, G. K.; Mrs. Alice Wolfe, Ceres; Miss Emma Benjamin, Pomona; Miss Eugenie Benjamin, Flora; Miss Annie Sutton, L. A. S.

FLORIN GRANGE, No. 139 FLORIN, SACRAMENTO CO.—L. H. Fassett, M.; W. H. Starr, O.; J. T. Amos, L.; W. Soholefield, Sec'y; C. Simons, S.; C. Lea, A. S.; D. Reese, T.; C. Bates, C.; Julia Wilson, Ceres; Lizzie Rees, Pomona; Rose Carrington, Flora; E. Fassett, L. A. S.

INDIAN SPRINGS GRANGE, No. 246, ROUGH AND READY, NEVADA CO.—Election, Dec. 11th: H. L. Hatch, M.; L. Horton, O.; M. H. Jackson, L.; F. A. Horton, S.; F. E. Ranier, A. S.; S. F. Ball, C.; T. J. Robinson, T.; Mrs. E. M. Horton, Sec'y; P. L. Stull, G. K.; Mrs. E. W. Hatch, Ceres; Mrs. M. L. Davis, Pomona; Mrs. S. F. Ball, Flora; Miss Jennie W. Stull, L. A. S.

LINDEN GRANGE, No. 56, LINDEN, SAN JOAQUIN CO. — Election, December 31st, 1875. David Lewis, M.; David Dodge, O.; E. B. Cogswell, L.; Cyrus Prather, S.; Norman Alling, A. S.; Robert Latham, C.; W. F. Prather, T.; James Wasley, Sec'y; C. W. Martin, G. K.; Mrs. N. Alling, Ceres; Miss Julia Harrold, Pomona; Miss Josephine Martin, Flora; Mrs. Emily J. Martin, L. A. S.; C. B. Harrold, Trustee.

MERRITT GRANGE, No. 7, MASON VALLEY, NEVADA.—K. Cleaver, M.; D. Cooper, O.; Mrs. M. Higgins, L.; J. J. Fox. S.; C. J. Martin, A. S.; J. A. Webster, C.; W. H. Sprsgg, T.; C. Cleaver, Sec'y; C. A. Reed, G. K.; Mrs. K. Cleaver, Ceres; Mrs. M. Hernlevan, Pomona; Mrs. L. Sanders, Flora; Miss Alice Spragg, L. A. S.

MONTEZUMA GRANGE, No. 158, COLLINSVILLE, SOLANO CO.—Election, Jan. 15th: C. M. Ish, M.; C. H. Rice, O.; S. H. Depny, L.; C. K. Marshall, Sec'y; T. T. Hooper, C.; F. Unger, S.; D. Cushman, A. S.; Jas. Golbraith, G. K.; Geo. Daniels, T.; Mrs. Daniels, Ceres; Mrs. S. H. Depuy, Pomona; Miss A. Daniels, Flora; Mrs. C. H. Rice, L. A. S.

OLD CREEK GRANGE, No. 26, OLD CREEK, SAN LUIS OBISPO CO.—Isaac Flood, M.; Chas. S. Clsrk, O.; A. L. Tolle, Sec'y.; E. H. Smith. C.; G. Flood, S.; A. Flood, A. S.; T. Phillips, G. K.; Mrs. Arcada Flood, L. A. S.; Mrs. Betty Flood Ceres; Mrs. Martha Phillips, Pomona; Mrs. M. J. Clark, Flora; E. H. Smith, N. Nuckolls, D. C. Powell, Trustees; C. S. Clark, Business Agent.

PASO ROBLES GRANGE, No. 203, PASO ROBLES, SAN LUIS OBISPO CO., CAL.—Election, Dec. 25th: H. W. Rhyne, M.; D. F. Stockdale, O.; Mrs. R. Thompson, L.; J. M. Cunningham, S.; Wm. Exline, A. S.; P. McAdam, C.; Philip Klepel, T., (re-elected); John Thompson, Sec'y, (re-elected); G. Middagh, G. K.; Mrs. E. McAdam, Ceres; Mrs. M. Moody, Pomona; Mrs. A. Cunningham, Flora; Miss Mary A. McAdam, L. A. S.

ROUND VALLEY GRANGE, No. 217, COVELO, MENDOCINO CO.—Brother Handy, M.; Brother Pullen, O.; Brother W. Crawford, L.; Brother Brush, S.; Brother Faulds, A. S.; Brother Johnston C.; Brother Dorman, T.; Brother Tod, Sec'y; Brother J. Foster, G. K.; Sister Eberle, Ceres; Sister Moore, Pomona; Sister Shrum, Flora; Sister Johnston, L. A. S.; Brothers Eveland, J. A. Crawford and G. Henley, Trustees.

RUSTIC GRANGE, No. 83, LATHROP, SAN JOAQUIN CO., CAL.—Henry Moore, M.; Fred. Brownell, O.; Daniel Casey, L.; Frank Smith, S.; Donald McLeod, A. S.; Thomas Wilson, C.; H. S. Howland, T.; H. B. Dunn, S.; Dennis Visher, G. K.; Cecilia Dunn, Ceres; Fannie Howland, Pomona; Mrs. D. Visher, Flora; Emma Shephard, L. A. S.

SALINAS GRANGE, No. 24, SALINAS, MONTEREY CO., CAL.—Peter Mathews, M.; J. D. Vanoy, O.; J. R. Hebbron, L.; Hiram Cory, S.; J. H. Brown, A. S.; Henry Whismsn, C.; W. F. Ramsay, T.; Clara Westlake, Sec'y; Mrs. H. Cory, Ceres; Mrs. Breese, Pomona; Mrs. Treat, Flora; Mrs. R. Cory, L. A. S.

SANTA CLARA GRANGE, No. 70, SANTA CLARA, CAL.—J. A. Wilcox. M.; A. Woodhams, O.; Mrs. Knowles, L.; J. W. Bryan, S.; C. H. Brandenberg, A. S.; G. B. Walters, C.; C. Peebles, T.; A. B. Hunter, Sec'y; J. F. Hunter, G. K.; Sarah J. Keith, Ceres; Elizabeth Willet, Pomona; Amanda Jackson, Flora; Lena Campbell, L. A. S.; H. Gœpper, Trustee.

SANTA ROSA GRANGE, No. 17, SANTA ROSA, CAL.—A. W. Davis, M.; C. P. Teague, O.; S. T. Coulter, L.; W. G. Leek, C.; Theo. Staley, S.; Jno. Adams, A. S.; Julius Oat, Sec'y; W. W. Gauldin, T.; A. J. Mills, G. K.; Mrs. E. H. Light, Ceres; Mrs. A. J. Mills, Pomona; Mrs. C. P. Teague, Flora; Miss Belle Hendrix, L. A. S.

SESPE GRANGE, No. 164, CIENEGA, SANTA PAULA, VENTURA CO., CAL.—Eleotion, Dec. 24th. F. A. Sprague, M.; B. F. Warring, O.; S. A. Guiberson, L.; J. M. Horton, S.; C. W. Edwards, A. S.; Ari Hopper, C.; I. D. Lord, T.; Hugh Warring, Seo'y; Wm. Horton, G. K.; Mrs. Elvira G. Kenney, Ceres; Mrs. M. E. Guiberson, Pomona; Mrs. Susan Hopper, Flora; Mrs. Edwards, L. A. S.

SIERRA VALLEY GRANGE, No. 257, SIERRA VALLEY, SIERRA CO.—Election, Dec. 30th: B. F. Lommon, M.; S. S. Battelle, O.; W. C. Lemmon, S.; S. H. Peterson, A. S.; J. G. Lemmon, L.; Geo. E. Hale, C.; J. G. Lemmon, Sec'y; Miss C. R. Lemmon. T.; E. A. Garfield, G. K.; Mrs. S. L. Battelle, Ceres; Mrs. R. B. Hale, Pomona; Mrs. M. L. Lemmon, Flora; Mrs. S. A. Haines, L. A. S.; B. F. Lemmon, Business Agent.

VISALIA GRANGE, No. 142, VISALIA, TULARE CO.—J. M. Graves, M.; Henry Hunsaker, O.; G. F. Pennabaker, L; A. H. Murray, S.; Richard Newman, A. S.; Mrs. A. Swanson, L. A. S.; Wm. Curtis, Sec'y; L. Van Tassel, C.; J. O. Blakeley, T.; Mrs. J. O. Blakeley, Ceres; Miss J. F. Shewey, Flora; Mrs. J. M. Graves, Pomona.

New Year's Eve.

[Written for the PRESS by M. A. H.]

It is New Year's eve—the old year is gone,
And the rain-drops "patter their doleful prayers."
I am sitting now by my fire alone,
And brood o'er the past with its toils and cares,
And I try to crush each murmuring thought,
To still ev'ry bitter wish in my breast;
To be thankful for good the year has brought,
To believe that the seeming ill was best.

Have I grown more wise or strong through it all—
More ready to help, more firm to endure?
Does my faith falter, though still the storms fall,
Or has my soul found its anchor secure?
My little one said his prayer at my knee
To-night—to whom will he say it next year;
Will he then take his good night kiss from me?
How closely allied to joy is our fear.

I think of some who are "dropped from the roll,"
Whose voices and smiles will greet us no more;
Others who, living, are *dead* to the soul,
Whose straying from wisdom's paths we deplore.
Ah, bitter indeed is that hopeless death,
When all that's noblest and truest has fled,
Of the image defaced, nought left but breath;
The crown fallen from the dishonored head.

How the rain falls! How it sinks in the turf
That covers the loved, but now pulseless breast;
The dear one afar, by the ocean surf,
Sleeping for aye in eternal rest;
What to him are warmest caresses now,
Words of endearment or bitter regret?
No more than the blast sweeping o'er the bough,
Or leaves clinging round it, heavy and wet.

Some must be missed from the New Year's feast;
Some will not come though we wait long and late;
Some who to-night are expecting it least,
Will have passed, ere the next, through death's dark gate.
Let us be ready what time Thou shalt call,
To give up or leave what so loosely we hold,
Then, whatever in the future befall,
Thou'lt gather us all in the Good Shepherd's fold.

Farm House Chat.

[Written for the PRESS by MARY MOUNTAIN.]

When the RURAL, like its host of thoughtful readers, made good resolutions and promises of improvement for the New Year, I dared to hope that Santa Claus or "somebody" would bring on a new folder or overhaul the old one, for nearly always I vexed my orderly soul over the disorderly sides and ends of each new RURAL. For want of a big, empty table, down on the floor I must go, unfold and smooth out the paper, then refold carefully before it could be neatly stitched and cut. Until quite recently the same toilsome process had to be gone through with *Harper's Weekly;* and even now its folding is not always tidy. The *Scientific American* was first to come in ship-shape, and with a conspicuous notice to subscribers that it would be considered a favor if they would report all cases of slovenly folding, so that the person having that department in charge might be duly overtaken with wrath and scientifically "blown up" for criminal negligence. Probably the "person" was entirely blown away, and not daring to sacrifice another, they ordered some more machines, and for a year past the *Scientific* has come to hand ready stitched and trimmed neatly as a book. This has made me rather jealous in behalf of our California papers, and led to the preparation of several elaborate growls suited to the quantity and quality of my discontent. Thankful am I that the growls were kept at home, for here comes a Holiday RURAL ready with all its cut pages to meet the New Year smiles and blessings of delighted friends. Pity that editorial ears could not accompany the improved paper and listen to the kindly words of approbation that are sure to greet it everywhere!

In the ardor for finishing touches some of my pages slipped out of place and got their heads nearly slashed off; but when that new machine settles down to steady work we may all reckon upon "safe margins" and columns that never straggle.

Here again let us give thanks that our paper invests its dollars in real improvement rather than in wonderful $5 chromos worth two bits apiece.

One of the leading religious papers has dropped the chromo business and gravely announces that it has some thousands of dollars to "give away"—as a bait for new subscribers.

Probably this is found to be a good way of doing business, but it sounds curiously like a "prize package" concern, or the infallible patent pills, put up (in order to "go down") with a "fine gold ring" (?) in every tenth box.

Here again let us give thanks that our best agricultural papers stand firm—though almost alone—in antagonism to the humbugging, swindling tendencies of the age.

Many and many a paper that boasts of its purity and christian influence gives place to advertisements directly calculated to mislead and defraud its trusting patrons, and thus some of the most outrageous swindling is made safe and respectable (?). The shrewd, advertising swindler is always anxious to spread his snares in quiet country places, where the innocent greenhorn is supposed to be waiting with almost eager readiness for the proffered bait.

So if Mr. Humbug can first buy the right of way in the farmers' paper, he is pretty sure, sooner or later, to pluck the farmer, or the farmer's son or daughter. It quite warms my heart to think how he has always failed in efforts to bribe the genuine farmers' paper; but his astonishing success in other quarters is something—to be ashamed of.

Yes, I am actually ashamed to tell of the "high-toned" company in which he is found, and how many fair pages have been smirched by his foul presence.

So many are involved in this meanness that it would hardly be fair to mention a few names; but I fear one might almost count upon his fingers the few noble exceptions—the few honorable papers that dare to refuse

Swindling Advertisements.

Perhaps Californians are not as easily duped as their Eastern friends, for there seems less of that sort of work attempted here. How is it? Are the people more wide awake or all the publishers more honorable?

Santa Cruz Sunshine.

About Christmas time we were astonished to hear that our friends in the interior had been gloomily wrapped in a blanket of fog, and had not even a glimpse of the sun for weeks. But here nearly all the December days were full of sunshine, bright, warm, glorious. Farmers are happy, and cattle thriving on the plentiful new grass. In proof of the warm weather, we saw on Christmas day the garden of one neighbor gay with blackberry blossoms, and in another almond trees in full bloom. Yet we have plenty of rain, ah, yes, can come to the front with our rain gauge as well as our sunshine. Here at Springdale the total rainfall to Dec. 31st is 24.41 and up to date (Jan. 7th), it is 33.16.

If any other locality has more than thirty-three inches, we would be glad to hear of it. And let no one imagine that we are dissolving in mud. Some mountain roads have become nearly impassible; but from this point we can trot briskly enough into town, and there flounder through streets too horrible to talk about. If strangers contemplate a visit to this proud little city, it will be wise to delay until rather late in the spring, when it is to be hoped dry land will once more appear in the principal streets. It seems almost disloyal to admit such a blemish upon the fair fame of Santa Cruz. I have known a beautiful woman who was so very untidy as to spoil the fine effect of nature's work. And this, both in city and country, is the prime fault of our beautiful Santa Cruz. But we are still young and reckless, often marring and destroying natural beauties that would by and by become almost priceless. We need some brave controlling influence that would lift us bodily "out of the mud," and force us so to improve, that the most gushing correspondent need not "damn with *false* praise" our fair and pleasant coast country.

I send you an item from the *Sentinel*, a little fact that is worth more to us than a thousand and one sentimental exaggerations. Fresh berries for Christmas, and gardens blooming all the year, tell the story of mild and equable climate; but there is a vast deal of work to be done before we can honestly claim that this is New Arcadia, the ideal or the real earthly paradise.

A Happy Couple.

A man should always be a little older, a little braver, and a little stronger, and a little wiser, and a little more in love with her than she is with him. A woman should always be a little younger, and a little prettier, and a little more considerate than her husband. He should bestow upon her all his worldly goods, and she should take good care of them. He may owe her every care and tenderness that affection can prompt; but pecuniary indebtedness to her will become a burden. Better live on a crust that he earns than on a fortune that she has brought him.

Neither must be jealous, nor give the other cause for jealousy. Neither must encourage sentimental friendship with the opposite sex. Perfect confidence in each other, and reticence concerning their mutual affairs, even to members of their own families, is a first necessity.

A wife should dress herself becomingly whenever she expects to meet her husband's eye. The man should not grow slovenly, even at home. Fault finding, long arguments or scoldings, ends the happiness that begins in kisses and love making. Sisters and brothers may quarrel and "make up." Lovers are lovers no longer after disturbances occur, and married people who are not lovers, are bound by red hot chains. If a man admires his wife most in striped calico, she is silly not to wear it.

FIVE of the sweetest words in the English language begin with h—heart, home, hope, happiness and heaven. Heart is a hope place and home is a heart place, and that man sadly mistaketh who would exchange the happiness of home for anything less than heaven.

THE first exclamation of an American belle on entering the cathedral of Milan, was, "Oh, what a church to get married in!"

THE best guard of a woman's happiness is her husband's love, and for her honor, her own affection.

A Woman's Idle Moments.

What She Does With Them.

There are many mysteries in nature, as where all the fluff comes from, where all the pins go to, why a dog turns round three times after getting up from sleep, why a woman coming out of a shop looks one way and walks the other, why a policeman never has small feet, and why diamonds are not trumps as often as hearts; but a more impenetrable mystery envelops a woman with a bedroom. When Angelina hasn't anything else to do she goes up to her bedroom, and a vague unrest and sense of trouble fill her breast, and she says to herself, "Now, I think I'd sleep more comfortable with the head of my bed turned there, and the sewing machine here." Then she mentally calculates that the what-not would look better in this corner and the rocking chair more this way, and girds up her loins for a work of reconstruction. About ten o'clock Edward gets home. They have no gas at Rogers' Park, and Angelina complains that the smell of the kerosene, when the lamp is turned down, gives her the headache, and the bedroom blinds are drawn down to keep out the unchaste moon, so that altogether it is about as black as a wolf's mouth. The unsuspecting Edward enters the room and shapes his course as usual, but runs stem on to the sewing machine, which has drifted from its moorings, stubbing his toe and jabbing the sharp corner into himself where he lives. He makes some disconnected remarks not wholly pious and patient, and luffs up to find the bedroom candle and match safe, which are on the wash stand, or used to be there. They are still there, but the wash stand now bears seven points on his lee bow, its place being occupied by the what-not. Groping blindly about it, a tearful rattle and crash informs him that he has upset Angelina's work basket, containing three dozen spools of thread. "Angelina," says the miserable man in despair, turning toward where the bed ought to be. "Where the heaven are you? Where in the name of the archangel Gabriel am I?" "Oh, Edwin," responds the partner of his joys and sorrows from the direction of his left shoulder. "Here I am. Why don't you come to bed?" Edwin hereupon wheels about and starts in the direction of the voice, but steps on a rolling spool of thread and is hurled with the force of a catapult against the edge of the open door, which he strikes so forcibly that his nose is almost driven out through the back of his head. Then his wife remarks in a tone of mingled sorrow and indignation, "Oh, Edwin, I thought you promised me never to go to a saloon again?" Thoroughly infuriated the desperate man makes for the bed, but the rocking chair, one of the old school, with a high back, like a tortoise shell comb, and long, sharp rockers, has been in wait for him all the while, and now wrestles with him furiously. * * * The combat, though sanguinary, is short, and in six minutes Edwin has risen like a phœnix from the ruins of that rocking chair, got into bed, turned his back on Angelina, and enveloped himself in seventy-five per cent. of the bed clothes. And next morning he contemplates his nose in the glass, and audibly wonders why a woman can't leave things alone.

Ancient Shoes.

Recent discoveries have shown that the modern form of shoe is the same which was in use in Upper Egypt ages and ages ago. The pictures found in tombs in Upper Egypt represent people wearing shoes exactly like ours. It is, nevertheless, certain that the form of these shoes were unknown generally in the East, for chroniclers mention that everybody in the East, in Sparta and at Athens, went barefooted. Sandals came very slowly into use, for they were extremely inconvenient, and Athenians commonly preferred to go barefooted. In Rome, too, even senators long went barefooted. Cato, of Utica, never walked otherwise than barefooted. Shoes were so rare in France in the ninth century, that they were among the presents sovereigns made to each other; for example, Solomon III, sovereign of Brittany, charged the ambassadors he sent to Rome to present the Pope in his name a golden statue, a mule, saddled and bridled, thirty shirts, thirty pieces of cloth, thirty deer skins and thirty pairs of shoes for his servants. The caprices of fashion soon began to mold the form of shoes, and the strangest forms were adopted. Mediæval chronicles are full of invectives against the shoes *a la poulaine*, which were in great vogue in the twelfth century. The toe of these shoes was pointed upward like the prow (*poulaine*) of a galley; the heel was armed with a spur. A royal ordinance of 1367 interdicted these shoes in France. They nevertheless were still worn by some persons at the court of Francis I. Shoes with excessively broad toes drove these shoes out of fashion. In 1422 boots made their first appearance. Mezeray mentions that Charles VII was so poor on his accession to the throne that no shoemaker would sell him a pair of boots on credit. The forms of boots and shoes have changed repeatedly and annually changed.

A CERTIFICATE OF CHARACTER.—An English gentleman gave a discharged domestic the following "character:" "The bearer has been in my house a year *minus* eleven months. During that time she has shown herself diligent—at the house door; frugal—in work; mindful—of herself; prompt—in excuses; friendly—towards men; faithful—to her lovers, and honest—when everything had vanished."

The Religion We Want.

We want a religion that bears heavily, not only on the "exceeding sinfulness of sin," but on the exceeding rascality of lying and stealing—a religion that banishes small measures from the counter, small baskets from the stall, pebbles from the cotton bags, clay from the paper, sand from the sugar, chicory from the coffee, alum from bread, and water from the milk cans. The religion that is to save the world will not put all the big strawberries at the top, and all the little ones at the bottom. It will not make one-half pair of shoes out of good leather, and the other half out of poor leather, so that the first shall redound to the maker's credit, and the second to his cash. It will not put Jouvin's stamp on Jenkins' gloves; nor make Paris bounets in the back room of a Boston milliner's shop; nor let a piece of velvet that professes to measure twelve yards come to an untimely end in the tenth; nor a spool of sewing silk that vouches for twenty yards be nipped in the bud at fourteen and a-half; nor all-wool delains and all-linen handkerchiefs be amalgamated with clandestine cotton; nor coats made of old rags pressed together to be sold to the unsuspecting public for legal broadcloth. It does not put bricks at five dollars per thousand into chimneys it contracts to build of seven dollar material; nor smuggle white pine into floors when paid for hard pine; nor leave yawning cracks in closets, where boards ought to join; nor daub the ceiling that ought to be smoothly plastered; nor make window blinds with slats that cannot stand the wind, and paint that cannot stand the sun, and fastenings that may be looked at, but are on no account to be touched. The religion that is going to sanctify the world pays its debts. It does not consider that forty cents returned for one hundred cents given, is according to gospel, though it may be according to law. It looks on a man who has failed in trade, and who continues in luxury, as a thief.—*Ex.*

Something for the Inventive Genius of Ladies.

Here is something that ladies can exercise inventive genius upon profitably. Either of the following articles, if just the thing, will assure a fortune to the fair inventress if properly managed:

1. A ruffler which can be set to gather a given fullness.
2. A simple embroiderer.
3. An adjustable scroll binder which will not stretch the binding
4. A practical adjustable hemmer, from the smallest size to an inch wide.
5. A rotary shuttle sewing machine, which will not twist or untwist the thread, and which will sew with great rapidity.
6. A practical tuck folder.
7. A sewing machine which will have in its working parts the different attachments which can be thrown in gear with some working part of the machine when the attachment is required.
8. Motive power.
9. A good needle threader.
10. A glass oil bottle which can be sold cheap, and used to oil the machine instead of the oil can. It must be made so that the oil can be forced out.—*Ex.*

UNCOMFORTABLE PEOPLE.—You have met them, in all probability—perhaps you have them in your neighborhood—those people who have the faculty of making everybody uncomfortable where they are—people that, where you enter their presence, act as if an apology was due them for your existence. They are to be found in all classes, sometimes among the poorest people we have, and I often thought it was wisely ordered that some should be poor, for if they had been rich no one else could have lived in their vicinity. Such people cannot be over-wise, for any one possessing common sense can make themselves agreeable under all circumstances.

THE FIRST OF ITS KIND.—The legislature of Minnesota passed a law for the erection of a State inebriate asylum, the expenses of which are to be borne by a tax upon the liquor sellers. An appeal was made from the provisions of the law and the case taken to the supreme court, where its validity was confirmed. It is said that $10,000 of the tax have already been collected, which it is expected will be increased to $30,000 by the first of July. This is the first act of the kind, we believe, ever adopted by any of the States, and is well worthy of being introduced into every State in the union.

FEMALE SUFFRAGE IN CHILE.—A curious question has arisen in some towns in Chile on occasion of the inscription of citizens in the electoral registers. At San Felipe one woman presented herself for registration, one at Casablanca, and ten at La Serena. As the law makes no distinction of sex, and as the only qualifications required for citizenship are to have attained one's majority and possess a knowledge of reading and writing, the Boards decided to register said representatives of the weaker sex, so that at the coming elections women will be admitted to vote.

A FOND father wrote: "It generally takes twenty years of training to eradicate the word 'nice' from a woman's vocabulary. The falls of Niagara, the Psalms of David and the progress of the human race were all nice to my eldest daughter till she got married."

Social Misadventures.

The majority of men have an exceeding dislike to appearing ridiculous, never having appreciated the full comedy of life, and that it must be treated either as comedy or tragedy, or, perhaps, as a nice admixture of both. To bring the foregoing remarks home to our present subject, when any of those ludicrous little mishaps occur which are described in witty works of fiction, or in comic periodicals, how painful they are to the principal actor in the scene, and how little he likes to hear of them again! When a young man enters a ballroom with his trousers tucked up; when a grave, wise man, like Pickwick, enters the wrong bedroom; when, as I once saw myself, a middle-aged lady comes down to breakfast having some stray locks still in the confinement of curl papers, these unfortunate people by no means like to be reminded of their misadventures. There is really no fun, only cruelty, in reminding them of their heedlessness; and, indeed, it becomes a kind of torture if this is repeated *ad nauseam*.

That great artist, Dickens, took care that none of Mr. Pickwick's companions, owing him respect, should venture to allude to that deplorable and shocking incident in good Mr. Pickwick's adventures. And this present writer would not dare to allude to the misfortune of that respectable and middle aged lady who, in absence of mind, had forgotten to release some of her locks from their nightly imprisonment, if she had not long ago passed away from this troublesome world. As we have before intimated, however, it is the young who most feel having on any occasion made themselves absurd or ridiculous. The middle aged man, unless he is a most fortunate individual, has gone through so much trouble that these minor misfortunes of his youth are food for laughter for him as well as other people. Not always, though. A man in "the sere and yellow leaf" of life has confessed to me that he feels hot all over and knows that the color is mounting to his face when he remembers some of the most ludicrous adventures of a trivial kind in his early life. The sensitive, alas! are always sensitive, and even old age fails to harden them. —*Social Pressure.*

The Better-Half of a Great Man.

To promote her husband's interest Mrs. Benjamin Franklin tended his shop, where she bought rags, sewed pamphlets, folded newspapers and sold the few articles in which he dealt, such as inks, papers, lampblack and stationery. At the same time she was an excellent housekeeper, and besides being economical herself, taught her careless, disorderly husband to be economical also.

Sometimes Franklin was clothed from head to foot in garments which his wife had both woven and made; and for a long time she performed all the work of a servant. Nevertheless, she knew how to be liberal at the proper times. Franklin tells that for several years after his marriage his breakfast was composed of bread and milk. They ate out of a two penny earthen vessel, with a pewter spoon; but one morning on going down to breakfast he found upon the table a beautiful china bowl, from which his bread and milk was streaming, with a silver spoon by its side. When he expressed his astonishment at this unwonted splendor Mrs. Franklin only observed that she thought her husband deserved a silver spoon and china bowl as much as any of his neighbors.

Franklin prospered in his business until he became the most famous editor and the most flourishing printer in America, which gave him the pleasure of relieving his wife from the cares of business, and enabled him to provide for her a spacious and well furnished abode. She adorned a high station as well as she bore a lowly one, and she presided at her husband's liberal table as gracefully as when he ate his breakfast of bread and milk from a two penny bowl.

What Makes Men Great?—A great man is affable in his conversation, generous in his temper, and immovable in what he has maturely resolved upon. And as prosperity does not make him haughty and imperious, so neither does adversity sink him into meanness and dejection, for if ever he shows more spirit than ordinary, it is when he is ill used and the world is frowning upon him. In short, he is equally removed from the extremes of severity and pride, and scorns either to trample on a worm or cringe to an emperor.

Snakes.—A huge rock, which appears to be formed almost entirely of serpents in various positions, but making a solid mass, has been found on the line of the Baltimore and Ohio railroad, and will be sent East for exhibition. Cardiff giant in a new shape.

A Peripatetic Mill.—A queer use of steam is found on Duck river, in Tennessee, on which a steamboat, drawing only a foot of water, and having a grist mill on board, wanders up and down, stopping where it is wanted to grind a bushel or two of corn for the farmers.

Twenty cigars a head is the number annually manufactured to every man, woman and child in the United States. Forty years ago two was the allowance.

Young Folks' Column.

The Little Brown Stocking.

Here's a little brown stocking,
Faded by many years,
Hidden among my treasures,
Stained with many tears.
It hung in a chimney corner,
On a Christmas long ago,.
Loaded with precious goodies,
Full from the top to toe.

Two chubby hands unloaded
The gifts of Santa Claus;
Oh, how his black eyes sparkled!
And surely there was cause.
You see that little hole there?
There's where a horse was tied—
So heavy that it tore it,
And big enough to ride.

No soldier was ever prouder
With war horse most superb,
Than he on his rocking pony,
With saddle, whip and curb.
Oh, that was the merriest Christmas,
And he the jolliest boy,
And this is the sweetest memory
I ever shall enjoy.

The red leaves of the autumn
Lie dead above him now;
The prattling lips are silent,
His hands are cold as snow.
Naught but the little stocking
Is left of that bright day;
The stocking and the memory
Are mine to keep alway.

Little Sea Wonders.

Some very curious little creatures live in the sea in places deep enough to be visited sometimes by whales and porpoises, who notice them about as much as elephants notice the moths and butterflies that flit in the air about them. The bed of the sea, where the sunlight can reach down to it, is as gay as a garden. Beautiful marine plants of the loveliest colors are growing there, and all sorts of delicate, brilliant mites of creatures are gaily sailing about or swaying their graceful forms from the rocks where they cling. We cannot tell you all about these tiny sea wonders, but we can at least start you on the way of finding out more about them for yourselves:

The well digger (*Cullle*), is a little round fellow who moves about under the waves by discharging little jets of water from a small tube or syphon, and makes wells in the sand. He hovers over a clear patch of sand as though about to settle, while by means of his tube he blows the sand from under him until a slight hollow is formed. Then he settles, but keeps on blowing out the sand until nothing can be seen of him save his straggling arms and curious eyes. When tired of one well, he starts off and makes himself another.

The living umbrella (*Pelagia*). Think of it! A tiny living umbrella that moves through the water by opening and shutting itself. It has four sticks instead of one, and has a number of tendrils floating from it. It is not made of gingham or silk, but of a beautiful jelly, and it has relatives very like itself, except that they prefer taking the form of goblets and bells and cups gliding through the sea.

The black goby is a pale brown little fish, with drab clouds and patches of white specks. He looks very fierce, in spite of his mild blue eyes; and no wonder. What do you think he does? He waits until some meek little fish comes along, then darts from his hiding place, seizes his victim by the tail, and swallows him alive! Now, his distended body is black with his victim, but he doesn't mind that. Before long, the wicked face is seen peering out from the sea-weeds again, with his mild blue eyes in search of fresh prey.

Food for Children.—Children do not like fat meat, so give them good bread and butter, and allow them plenty of sugar. A chemist will tell you that both fatty substances and saccharine or sweet substances are eventually oxidized in the body. Sugar is the form to which many other things have to be reduced before they are available as a heat-making food; and the formation of food is carried on in the body. It has been proved that the liver is a factory in which other constituents of food are transformed into sugar. Now, it is probable that your children really need sugar to keep them well, and it is fortunate that most children are fond of vegetable acids. A saucer of berries, or a ripe apple, is often a better corrective for children's ailments than a dose of medicine; yet the majority of parents give the nauseous dose preference over the fruit. It does seem sometimes as if parents were occupied more in denying than gratifying their children's appetites. This is neither necessary nor fair. They get as tired of bread and milk as you would.

Advice to an Apprentice.—1. Seize every opportunity of improving your mind.

2. Be careful as to who are your companions,

3. To whatever occupation you may be called as a means of obtaining a livelihood, determine to understand it well and work heartily at it.

4. Accustom yourself to act kindly and courteously to every one.

5. Carefully avoid all extravagant habits.

6. Determine to possess a character for honesty.

7. Cultivate a strict regard for truth.

8. If your parents are living, do your utmost to promote their happiness.

9. Recollect your progress in life depends upon your own exertions.

10. Be a respecter of religion, and do unto others as you would they should do to you.

Good Health.

Frost Bite.

Exposure to the cold, of severe degree, often leaves the fingers and toes, nose, ears and lips, more or less frozen. This condition, short of absolute death of the part, is termed frost bite. It will be observed that the portions of the body just enumerated are those most exposed, in area, to the influence of the cold, and are furthest situated from the heart; and it will, perhaps, be unnecessary to remark that persons who are debilitated are more apt to suffer with the same amount of exposure than the robust.

When the circulation of any part begins to succumb to the influence of the cold, it becomes puffy, blueish and smarting. This is because the blood moves more slowly than natural through the vessels exposed near the surface. Soon this blueness disappears, and the part becomes pallid, as if the influence of the cold had contracted the vessels to an extent incompatible with the passage of blood through them. The pain at this point ceases; indeed, until he meets a friend, he often does not know of his mishap.

What takes place in a part of the body, known as frost bite, may take place in the whole of it, which is known as "frozen to death." The blood of the extremities being gradually forced from them, under the continued subjection of the cold, is forced inward upon the larger blood vessels, heart, lungs and brain. There is increased difficulty in breathing, owing to the engorged state of the chest, and, what should always be remembered by one so exposed to cold, an unconquerable desire to sleep. To sleep *then* is to die. If the person exhibits such a symptom, he must, by all means, be kept constantly moving.

Treatment.

Persons exposed like those just described must be treated promptly, and with one thing never lost sight of. That is, keep the frozen person away from the heat. A person taken up insensible, or approaching it, from exposure to the cold, should be taken into a cold room, his clothing removed, and thoroughly rubbed with snow, or clothes wrung out with ice water. The friction to every part of the body, particularly the extremities, must be continued for some time, until signs of returning animation appear. When the frozen limbs show signs of life, the person should be carefully dried; put in a cold bed in a cold room; artificial respiration used until the natural is established; then brandy given, also ginger tea and beef tea. Usually, by this time medical advice will have been secured to direct further treatment. should it not, do not forget that the patient is to be brought by degrees into rather warmer air; and lest in some part there might still be defective circulation, the person should be kept away from exposure to the heat of the fire.

Milder degrees of the same condition, as suspension of life in the ear, nose, finger, or toe, from exposure to cold, must be treated with the same general directions in view. The part should be kept away from the heat and rubbed with a handful of snow, or towels dipped in cold water, until circulation appears re-established. Exposure of the part to the heat before, we may say, it has been almost rebuilt, is apt to be followed by sloughing.—*Accidents and Emergencies.*

The Financial Equivalent of Health.

A remarkable paper on this subject was read recently before the American Health Association of Baltimore, by Dr. Benjamin Lee. The object was to determine the loss sustained by the city of Philadelphia in dollars and cents through the epidemic which occurred there in the winter of 1871–2. Dr. Lee calculates the loss by diminution of travel and traffic on the railways, and loss to hotels, to merchants, and to business generally. He also computes the loss due to sickness and diminished production and by death. He sums up his calculations as follows: Expenses incurred in care of sick, $203,879; loss by sickness (time), $1,072,065; loss by disability (time and expenses), $10,000,000; loss by death (based on estimate of value of a life to society), $5,013,000; burial expenses, $74,420; total, $16,363,364. As the epidemic was due to neglect of sanitary precautions and might have been prevented by judicious sanitary legislation, the above represents in cash the money equivalent of the disease, which was wholly lost to the community.

Consumption.—The incurable character commonly attributed to pulmonary disoases is seriously questioned by M. Pietra Santa, the malady being, in his opinion, essentially general and constitutional—an alteration of the functions of nutrition, and a disease of the blood; and that, while there is no panacea for the affection, he thinks that many cases may be greatly alloviated, and, indeed, entirely cured by following a rational treatment. Thus, in all poriods of the disease, the assistance is to be invoked of suitable hygienic and moral treatment, a pure atmosphere, a tonic diet, moderate exercise and the use of milk for food; the administration of certain mineral waters; a sanitary change of place and migration, always into southern temperate regions during winter, and to mountainous countries in the summer; the use of hyposulphites and the alkaline sulphites for the treatment of the tuberculous matter developed in the lungs; and calling into play the various agencies of therapeutics when they can be made available in the different periods of the disease.

Domestic Economy.

Remarks on Eating.

Professor Blot used to say it is a fact beyond all question that the intellectual and moral faculties of man are influenced in a large degree in their operations by those physical conditions which are dependent upon our food. Physiology proves that it is the contraction of muscles that produces wrinkles; and a person whose food is properly prepared appears younger and more beautiful than one who follows no scientific principles in his eating. Good food, properly prepared, will keep his muscles in order and elastic. Any one, male or female, young or old, starting with a good stomach, can keep healthy and in good flesh with proper food; it is only necessary to select the kind required by the constitution, and prepare it judiciously. It is not what we eat that makes us fat, but what we digest. Bad food may bring a temporary bloatedness, but not the plumpness of good health. He agreed with the opinions expressed by Thomas Jefferson, as well as by a celebrated New York clergyman, that good things have been made by the Creator for good people.

Another thing in food—it ought always to be prepared according to the age of the person for whom it is intended, and for the sex, as well as according to the climate and the season. In winter more fatty matter is necessary to be eaten than at any other time of the year. In spring, greens, which purify the blood and remove the bile occasioned by eating fatty substances in the winter. In winter we need more bile; in the spriug we must get rid of it if we would be healthy. When warm or hot weather comes, we must supply the wasted system by eating meat. Meat is better in summer than anything else. It is a great mistake to suppose that vegetables are the best for this season of the year. He recommends roast beef for summer. Skim off the fat. Don't bring fat to the table.

The Borgias of our Kitchens.

Oh, woman! heaven's last, best gift to the kitchen, must you and your daughters still continue to marshal families the salaratus way to dyspepsia? Can you never learn that the gridiron and the clear, glowing beds of coal, whereupon St. Lawrence himself would have deemed it a luxury to be broiled, better benefit the lordly steak unmacerated with the brutal pestle, uncontaminated with factory lard, and will sooner woo it to turn to pale pink, delicate amber and tender brown (with a sensitive elevation at the corners, forming a central chalice for the reception and preservation of its own juices) than the frying pan, accursed of God and abhorred of men? Know you not that by thinly slicing potatoes—not left over from yesterday's noon-day dinner—into cold water, wiping the same dry in a towel, dusting them with pepper and salt, frying them in boiling lard, and as soon as they put on the rich golden brown hue of a Cuban belle, removing and draining them, you can compass that which, at Saratoga, has brought fame and fortune to the artistic restaurateur? Is it not in you to pour boiling water on your coffee, and set the pot over a shovelful of embers in the hearth-box, where it will just simmer and not boil? Can your finer female sense not apprehend the difference between fanning a smokeless fire with a generous slice of bread till the surface of the latter turns delicately golden, then brushing the same with fresh butter, and burning bread on the top of a dirty stove, then swabbing it in melted, rancid oleomargarine? Alas! if experience can be relied on, we fear not. Priscilla is joined to her salaratus and frying pan; let her alone.—*The World.*

Whitewash for Kitchen Walls.—The first consideration in a cooking room is cleanliness. Tried by this test, papered walls are an abomination in such a place. You cannot darken this room through part of the day in summer, as you do others, and consequently fly specks will be numerous. Those walls absorb the kitchen odors and steam, and the smoke rests lovingly upon them. If creeping things got into a house they are sure to insinuate themselves into the paper on the walls. Hard-finished walls are really more cleanly, for they can be washed; but, unless the finishing is better done than in the kitchens we have seen, they soon look dirty, and this is the next worst thing to being so; for such finishing soon becomes discolored and "splotchy." There is nothing that will compare with the old fashioned whitewash; not color wash, but whitewash, pure and simple. The color wash may give the walls a prettier tint, but it must be put on by a practical hand, whereas whitewash can be applied by any one, whenever a dirty spot makes its appearance. It is true that unpracticed hands do not apply the brush as evenly as could be wished, but a few streaks more or less don't matter, when we can all see that the streaks are white and clean.—*Scribner.*

Potatoes should always be put into *boiling* water to cook, boil quickly and pour off the water, letting them dry a few minutes over the fire before dishing up. Steaming is the best manner of cooking them.

Indian Griddles.—Two cups of meal, one of flour, one of milk, one of water, one egg well beaten, two teaspoonfuls of cream yeast, sifted into the meal and flour. Mix and bake on hot griddles.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week.*	1 *month.*	3 *months.*	1 *year*
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Prompt Subscriptions.

We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, January 22, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Straw Burning Engines; The Wheat Outlook; East Oakland Nurseries, 49. Stitched and Trimmed: The Parks Dam: The State University; Trade Tuition, 56. Yellowstone Lake, 57. Patents and Inventions, 60.

ILLUSTRATIONS.—Straw Burning Engine, 49. Yellowstone Lake, 57.

CORRESPONDENCE.—Northern Part of Santa Barbara County; For the Centennial and the "Rural Press;" Hungry Hollow, 50.

THE DAIRY.—How Prize Cheese is Made; How Milk is Secreted, 50.

BEES.—Bees in San Diego; How to Secure Premium Honey, 50.

ARBORICULTURE.—A New Conifer, 50.

POULTRY YARD.—Poultry on the Farm, 51.

SHEEP AND WOOL.—Sheep in Georgia; Sheep on the Farm; Wool Growers' Association, 51.

STOCK BREEDERS.—Good Care and Good Stock; Regulations for Importing, 51.

PATRONS OF HUSBANDRY.—New Grange Officers; Worthy Master's Decision; Important Grange Movement—The Institution to be Planted in England; From the Granges, 52. Election of Officers; From Rio Vista, 53.

HOME CIRCLE.—New Year's Eve (Poetry): Farm House Chat; A Happy Couple; A Woman's Idle Moments; Ancient Shoes; A Certificate of Character; The Religion We Want; Something for the Inventive Genius of Ladies; Uncomfortable People; The First of Its Kind; Female Suffrage in Chile, 54. Social Misadventures; The Better-Half of a Great Man; What Makes Men Great? Snakes; A Peripatetic Mill, 55.

YOUNG FOLKS' COLUMN.—The Little Brown Stocking (Poetry); Little Sea Wonders; Food for Children; Advice to an Apprentice, 55.

GOOD HEALTH.—Frost Bite; The Financial Equivalent of Health, 55.

DOMESTIC ECONOMY.—Remarks on Eating; The Borglas of our Kitchens; Whitewash for Kitchen Walls; Indian Griddles, 55.

QUERIES AND REPLIES.—Cheese Factory; Grafting Large Vines; Cuttings Wanted; Guano; Movable Sheep Corral; Wind-Galls; Measly Pork, 56 57.

THE SWINE YARD.—Choosing Breeds, 58.

THE HORSE.—Breeding In and In; The Agricultural Horse, 58.

USEFUL INFORMATION.—The Formation of Habits; A New Cement; A Good Idea; Railway Ironclads; Boiler Incrustation; Increase in Cost of Getting English Coal; Failing Bodies, 58.

AGRICULTURAL NOTES from various counties in California, 60.

MISCELLANEOUS.—Important Postal Decision, 51. Smoke Preventer, 58.

NEW ADVERTISEMENTS.

Important to Farmers and Land Owners, Bailey & Co., Oakland, Cal.; Rupture. Rowe Elastic Truss Company, S. F., Cal.; Roses, E. Y. Teas & Co., Richmond, Ind.; Everything for the Garden, Peter Henderson & Co., New York; Gregory's Seed Catalogue, Jas. J. H. Gregory, Marblehead, Mass.; Poultry, M. Fallon, Oakland, Cal.

ON FILE.—"Responsibility of Housekeepers." Lorain; "Inyo Grange," J. A.; "Farmers' Wives," M. E. T.; "Alhambra Grange," M. B. L.; "Chilblains," W. T.; "Cherry Culture," San Jose; "Inquiry Concerning Orchard Trees," E. B. B.; "Vinegar from Wine;" "Books on Bees;" "Tule Lands;" "Reply on Hungarian Prune," W. W. S.; "Round Valley Grange," W. T.; "Progress at Florin," G. R.; Lompoc Grange," J. W.

THE military movement in Southern Russia continues. Military posts are being strengthened and the garrisons enlarged, and other warlike preparations are in progress.

THE greatest rainfall on the American continent is recorded for Fort Gaston, where 129 inches fell in nine months.

The Parks Dam.

There is a piece of lynch law in the shape of dam cutting reported from Sutter county. Most of our readers have heard of Parks' dam across Butte slough, because it has been a bone of contention ever since its construction. It was the property of the owners of district No. 5; they have expended about $600,000 in works for reclamation, and Parks' dam was the chief work. There are honest opponents of the dam who believe that it works hardship upon them by backing up the water and inducing ruinous overflows. These men proceeded against the dam in the courts and before the Legislature as honest men should proceed, seeking justice in its legal channels. But it appears that common justice was too slow for a certain band of operators, and so they took the law in their own hands, masked themselves and cut away the dam in the night time. Now, we cannot determine the exact justice involved in the question of the dam and its relation to the surrounding property. The courts and the Legislature are still studying the question and collecting testimony. But there is but one way to look upon such destruction of property as that which masks its perpetrators and calls them to their labors under cover of darkness. It is simply outlawry, and outlawry which we trust, for the good name of the State, will not be permitted to go unpunished. There is no justice about it at all. Like most self-constituted justice, in lands where daylight justice holds an even hand, it ruins more than it saves. The owners of the reclaimed property worked in good faith, they put their money in their enterprise, they were to all appearances responsible before the law for all injuries which they inflicted upon any one. The courts would have preserved the proper rights of all concerned on either hand.

The action of the destroyers of the Parks dam is unfortunate in every way in which it is looked upon. It will act as a damper upon many dispositions to put money into interior improvements. It gives the dwellers in the interior a name and character which they do not, as a class, deserve. For example, the *Alta*, in commenting upon the subject, says:

"The cutting of the dam is another lesson of the insecurity of property outside of the city; and another proof of the gross lack of conscience among some of the people who want to be considered as "honest farmers" and the most valuable citizens of our country."

Of course the *Alta* overdraws the real truth of the matter, and gives an unwarranted fling at the sterling agriculturists of the State which they will not brook. But it is universally unfortunate that the occasion for such a comment should have arisen. No one can be so blind as not to see that the interests of city and country are mutual, and that were it not for the property "outside of the city" the property inside the city would be a worthless sand waste. And yet our agriculturists cannot afford to have the development of the State retarded and capital withheld from useful interior investment through barbaric acts like the cutting of Parks' dam. We trust that every honest man in the neighborhood of the outrage will lend his aid to the triumph of the law and the restraint and punishment of those self-constituted judges who not only cut dams but aim a blow at all security of property and rule of order which must prevail in order to insure the highest prosperity of the State.

The State University.

The senate committee on public buildings and grounds, paid their visit of inspection to the State University at Berkeley, on Thursday, Jan. 13th. They devoted the entire day to the examination of the buildings and grounds, and it is pleasing to announce that they found almost everything satisfactory. There was, however, one important matter which will be made the subject of inquiry. On Friday the committee met in this city, and discussed the affairs of the institution. They find that there is something which seems like wrong action in the matter of the water supply. Messrs. Joseph W. Winans and J. W. Dwinelle, members of the board of regents; J. N. Duncan, a former superintendent of buildings, and A. J. Coffee, an engineer, were called and examined before the committee. The lands containing the springs whence the supply of water is obtained have been disposed of unconditionally to other parties, who have it in their power to shut off the supply at a moment's notice. This surprising error is likely to cause considerable inconvenience, if nothing more, to the State authorities, as it will have to be rectified in some manner as soon as possible. There has been some dissension of late in regard to the disposal of university lands at rates far below their actual worth. Only five dollars per acre has been received for the land, whereas proper cultivation and attention would have made it worth at least five times that amount. The committee feel obliged, under the circumstances, to sift the matter thoroughly, and ascertain whether or no there is any neglect in this important branch of the university affairs. They were unable to give the subject much attention Friday, but directed the secretary to prepare a schedule of all university lands and by whom they are held, to be submitted to the committee on some future occasion.

"Trade Tuition."

We have received a copy of the address recently delivered by A. S. Hallidie, Esq., President of the S. F. Mechanics' Institute, on the important subject of "Trade Tuition." The address was the first of the winter course of University lectures to be given by the State University professors and other able teachers at the Mechanics' Institute in this city. We have read the address with much interest and profit. Mr. Hallidie is doubtless the best qualified man on this coast to give information in this direction. Having studied the subject for many years as pertinent to his positions as President of the Mechanics' Institute, Regent of the State University, and one of the Directors of the Hawes Chamber of Industry; he has supplemented such studies by an extended tour through Europe, during which he visited most of the leading technical schools therein, and inquired carefully into their history, management and utility. The address before us consists chiefly of a brief summary of what is being done in the way of "Trade Tuition" in England, France, Germany, Switzerland and the United States.

In his opening remarks Mr. Hallidie gave a brief review of the necessities for schools devoted to such instruction; referred to the growing appreciation in which the benefits of practical education are being held—an education that will place tools in the hands of its pupils, to enable graduates, when they have finished their course of instruction, to enter immediately upon the struggle of life with a practical education, such as will secure for them good wages at the start, and enable them to take a leading position in whatever department of industry they may choose to engage. The origin of trade schools was discussed and commented on, in which connection the lecturer stated that it was the keen and practical eye of Napoleon that first saw the necessity for schools where trades could be learned, and that through him they were first inaugurated. The first edict for such an institution was issued by that wonderful man on the 21st of March, 1803. In the school then established eight hours per day were spent in the shops, and two hours only given to the study of the theory of the arts, to geometry, drawing, etc. We shall make further reference to this interesting and instructive address at some future time.

Paint.

We have often heard good words of the Averill chemical paint, of its sterling quality and perfect adaptation for all purposes of preserving and beautifying. We now acknowledge that we have had all good opinions fortified by ocular demonstration, brought so near to us that we could not but study it closely. Through the courtesy of C. W. Beach, manager of the California chemical paint company, we have had our offices most thoroughly renovated with the Averill paint. It was a hard test for the paint—it is difficult to make printers' ink white as snow, and then give it a tint as delicate as the blossom of a flower; and yet, just this has been done with the Averill paint, before our eyes during last week. We cannot refrain from bearing witness to the fact, for the benefit of all who desire to paint, either to preserve or beautify. The paint has a splendid body and it finishes with a glossa beautiful to look upon. It is smooth in consistency, showing perfect manufacture and fit materials. Another advantage is in the ready form in which it is prepared. It is a product for which we have nothing but good words, and those continually.

Stitched and Trimmed.

We sometimes wonder what the readers of the PRESS think of our improvements, which at the same time cut our pages apart and hold them together. We shall be glad to know that the movement meets approval, for it involves us in considerable additional labor and expense.

The papers are stitched but one-fourth of the length of the page. Our editions are so large that the papers have to be snatched from the machines speedily to reach the early mails. But the short stitching holds the pages perfectly and does not injure the paper for the binder as much as though the page was punctured from top to bottom. If in passing through the machines any copies are injured so as to be unfit for preservation, we shall be pleased to furnish duplicates upon application.

THE owners of oil lands in Los Angeles county, who have spent much labor and money in developing their property, and are just beginning to realize upon them, are likely to lose their toil owing to parties who claim the lands by a former title.

THE "San Francisco land association of Philadelphia" is again trying to secure such legislation by Congress will enable them to establish the notorious Santillan claim to land in this city.

THE Saratoga paper mill, in Santa Clara county, is now running night and day.

A WOOLEN mill is the last San Bernardino project.

QUERIES AND REPLIES.

Cheese Factory.

MESSRS. EDITORS:—I saw in a late number of your very excellent paper that you had associated with you a gentleman lately from the East, who had large experience in the dairy business. I have a few questions to ask, and if he can answer them he will, no doubt, confer a favor on many of your readers; certainly on one.

(1). Whether a cheese factory, as now conducted in the Eastern States, can be made a success in a climate where the thermometer ranges from 90 to 108 or 110 degrees for several days together. If so (2) how many cows will be required to run the factory to make it profitable? I know that if cheese can be made to keep in this climate at all that five or six hundred cows would make it a paying business, but as we cannot get that number together here, how few can be used to make it reasonably profitable, taking into consideration the necessary outlay? (3). What machinery is necessary, and the probable cost of the same in San Francisco? (4). What amount of cheese can be made from a given quantity of milk?

Any other information that will enlighten us on the subject of erecting and running a cheese factory will be appreciated. No cheese has ever been made in this valley, hence our ignorance on the subject. G. F. PENNEBAKER,

Visalia, Jan. 10th, 1876.

1. Such a high temperature as our querist cites would of course be very unfavorable to the production of good cheese. We cannot state certainly, however, what the result would be in this case, without a better knowledge of the situation. Is there running water? If so, what is its temperature during the summer? If there be no running water of suitable temperature, can cool water be gained in any other way at small expense? The single fact that the temperature of the air is high for several days together, does not preclude cheese making, provided there are means at hand for cooling down the milk to working and preserving degree—say from sixty to eighty degrees. Of course cheese making under such unfavorable conditions as our querist describes would be less profitable than in a cooler air. Not only would the milk need artificial cooling to a greater extent than in the famous dairy regions of the country, but measures must be had to secure a curing room which would not be hotter than about seventy degrees. This is necessary at the East, and recourse is had to double walls and closely shaded windows, and sometimes to ice chambers, to secure a proper temperature for curing. If proper appliances and conditions cannot be had for protecting the cheese during curing from such violent heat as our querist names, there is little if any chance of making good cheese.

2. Under the most favorable conditions it would not be worth while to undertake the erection and equipment of a cheese factory with less than 300 cows. Of course a much less number could be used profitably on the private dairy plan, if the owner of the dairy or one of his family could do the work on the cheese.

3. We are unable to state what would be the cost of a factory outfit here. There is no regular dairy utensil trade here. Vats and other apparatus would have to be made on contract, and the expense would of course be greater than from an established manufactory. We think that the necessary outfit could be obtained more cheaply from the East, but we cannot form an estimate at once, because we cannot determine what rates of transportation could be secured. We shall be glad to do this for our querist and other readers of the PRESS as soon as possible.

4. The yield of cheese from milk varies according to the condition of the milk and the skill of the maker. One pound of cheese from nine and one-half pounds of milk would be an average of the results gained by skillful New York makers. There are cases reported as low as one of cheese to eight and a half of milk, and sometimes a factory's average will reach as high as one to ten and a half.

We intend to touch upon all the points of butter and cheese dairying in our writing on these topics during the present year. We shall be glad to receive queries and hints from our dairy readers concerning the matters which most interest them. We think the most important phases of the question can be reached in this way.

Grafting Large Vines.

MESSRS. EDITORS:—Please explain through the PRESS the (1) mode of grafting large grape vines, say four or five inches in diameter. We

have succeeded very well in grafting small vines by the common cleft grafting, but are fearful of undertaking a large stock lest it crush the scion. We and many others are desirous of grafting, or otherwise changing the Mission into raisin grapes, and are after "more light" on the subject. (2). In your quotations in the PRESS what do you mean by "Cal. raisins," and in what kind of packages? W. C.

1. Under the conditions our querist proposes we are of the opinion that the grafts can be inserted in this way: Bore holes of the proper size in the stock with a sharp auger bit, and insert the scion, to the depth of about two inches. Before inserting the scion the bark should be peeled from it as far as it goes into the hole. It should fit the hole snugly The holes should be bored in the stock as near the bark as possible. It is not necessary to match bark with bark as with tree grafting. This is one way of doing what our querist desires. There may be better ways. We should be pleased to hoar them from any reader.

2. The quotation "Cal. Raisins" refers to our home grown raisins. They come upon the market generally in 10 lb and 20-lb boxes. There has complaint arisen that there is no uniformity in the size of raisin boxes, and for this reason it is difficult to introduce them in the Eastern grocery trade. There should be an established uniformity in the sizes of raisin boxes.

Cuttings Wanted.

MESSRS. EDITORS:—Will you please let me know, if possible, where I can get some Larga cuttings? A great many of my neighbors would like to plant this variety for raisins.

Los Angeles, Cal., Jan. 10th, 1876. D. R.

Will some reader of the RURAL PRESS favor us with the information?

Guano.

MESSRS. EDITORS:—I wish that you would let me know where, in San Francisco, I can get *genuine* guano—that is, the address of a house that you could recommend. Guano dealers have no idea how much they hurt their business by mixing foreign matters, like sand, to their guano; if it was not for that fraud I positively know that guano would be more extensively used than it is. FELIX GILLET.

Nevada City, Cal.

We believe that the genuine article can be obtained at wholesale, at reasonable rates, from Cross & Co., of this city. It is certainly a short sighted policy for any guano dealer to adulterate his stock. He amputates his own olfactories most effectually, for culturists can easily and practically test the quality by the effects which are produced.

Movable Sheep Corral.

MESSRS. EDITORS:—In the RURAL PRESS of January 8th, there is a request for information or description of a good movable sheep corral. The following is the description of the one I have in use, which is a perfect protection to the sheep from coyotes, or high winds. The sections of the corral are sixteen feet long, four boards high, each board six inches wide. The bottom board rests on the ground, the second board is raised three inches above the first. or bottom board. The third board is five inches above the second, and the fourth board six inches above the third. The total hight is three feet two inches. These boards are fastened at the ends by two cleets, three inches wide, one nailed on each side with twelve-penny nails, (which have been annealed,) one nail driven from each side and clinched through each board. In the center is another cleet of any width, nailed with eight-penny nails and clinched. The above sections of fence (or panels, as they are generally called), are fastened together with a device of my own, an application to patent which is now in the hands of Dewey & Co., Patent Agents, San Francisco. The above device is absolutely perfect, and a description will be given to the world in the advertising columns of the SCIENTIFIC and RURAL PRESS in a short time.

C. W. CLARKE.

Visalia, Tulare Co., Cal., Jan. 15th.

Wind-Galls.

MESSRS. EDITORS:—Will you or some of your many readers of the PRESS who are posted please inform me, through your columns, the most effectual way of removing wind-galls from horses? OSKER.

Oakdale, Jan. 6th.

Edward Mayhew, author of the *Illustrated Horse Doctor*, says: "The only remedy which promises any benefit is the application of pressure; fold a piece of soft rag several times; saturate the rag with water, lay upon the wetted rag one drachm each of opium and camphor; put these upon the enlargement. Upon the moistened rag place a piece of cork big enough to cover the wind-gall, and of such a thickness as may be necessary. Above the cork place a rubber bandage and lace it tightly. Constant and equal pressure can be by this means kept up. Take off the bandage the last thing before leaving the stable, and put it on again as soon as the animal returns." Does any reader of the RURAL PRESS know a better cure?

Measly Pork.

MESSRS. EDITORS:—I send you a piece of tongue, jaw and tenderloin of pork, from the fact there is something about it we do not understand, it being foreign to common pork. Some think it poison, others think it trichina; please have it examined and inform me and others through the PRESS. I will say this appearance of matter is all through one of my fat pork hogs; in its heart and brains the worst; all through except the leaf lard, liver, lights and melt, which were clear of it. This hog was some sixteen months old, weighed 183 pounds. The treatment of my hogs is this: Last May I turned them in my pasture of alfalfa, and put then in my grain pasture after harvest. They remained out until about four weeks since. Then I put up my pork hogs in a pen and fed them on cracked corn until Monday last. This hog to all appearance was as healthy as any of them. The rest, eight in number, are all sound, good pork. I will further say my hogs had when out access to acorns, live oak in particular, and some white oak. Now, sir, if it is not too much trouble to analyze this thing for me, you will much oblige me, with many others.

Camanche, Cal. W. B. STAMPER.

The specimens described in our querist's letter were received in good condition. We recognize the appearance. It is what is known in common parlance as "measly pork."

Early writers upon the diseases of the hog pronounced those afflicted with a coating of red patches as sick with the measles, regarding the malady epizootic as the measles in the human being is epidemic. It was soon discovered, however, that the trouble was located chiefly under the skin, and was scattered through the whole fleshy parts of the animal. The chief indication is the appearance of yellowish pustules filled with watery matter. These in the time of Youatt were regarded as "a milder form of leprosy." Later investigation has proved the supposition wholly incorrect.

Measly pork is caused by the presence of the larvæ of the tænia or tape worm. It is a peculiarity of this worm that its full development is attained in another habitat than that in which the larvæ grow. Thus the hydatids or germs of the tape worm grow in the flesh of the hog but do not develop into tape worms unless the flesh is introduced into the intestines of other animals. The production of the tape worm is thus complete in three stages. The hog with its food or drink swallows some of the minute eggs of the tape worm and they hatch into the hydatid and thence it goes into another animal to form the perfect worm. These facts have been ascertained by scientific investigators after long study.

This hydatid exists in the flesh of the hog encased in a cyst or sack of a pale, yellowish color, and these our querist mistook for particles of matter.

This enemy of the hog is altogether different from the *trichina*. It is not so dangerous a pest, but it is more frequent.

It is impossible to tell whence the hog receives the disease. There is nothing special in the care which our querist describes to account for it. The flesh is of course unwholesome.

The case submitted is a bad one and the hydatids are easily recognized. It sometimes exists obscurely and is not easily perceived. Such heat as a good, thorough cooking kills the germs, and no one who eats only well cooked pork need fear cherishing a tape worm.

THEY are having very cold weather in the East.

Yellowstone Lake.

We present on this page an engraving representing Yellowstone lake, taken from Prof. Hayden's Government Reports on the geological survey of Montana, Idaho, Wyoming and Utah. Prof. Hayden, in speaking of the formation of the lake, says: The drainage of the country commenced long before the excavation of the present water courses, but it is difficult to answer the question how this great drainage was brought about, unless we account for it by a general elevation of the entire country, gradually sending this immense body of water, which must have prevailed all over the Northwest at least, perhaps all over the Rocky Mountain region, westward into the Pacific, and eastward into the Atlantic. As the waters slowly subsided they were separated into lakes of greater or smaller size, and then came the excavation of the grand canon, which slowly drained the great lake basin above the falls, so that now we have only the comparatively small remnant, the Yellowstone lake, shown in the illustration.

CURING TOBACCO.—We call the attention of California farmers to the new process of curing tobacco, invented by John P. Opitz, of Anaheim, Los Angeles county, which for quality and cheapness promises considerable changes in that line of business. The process is of a character which will admit of people of small means commencing the cultivation and curing of tobacco, as no expensive houses for curing are required. The inventor cures the plant where it stands, right in the field; breaks off the leaves and covers them with ground, allowing them to gradually steam and cure. We are informed that this process is particularly available in a dry country. where there are no long continuous rains. The inventor has applied for a patent. and claims that the soil removes any bitter taste. and that all the aroma is kept in the leaf. We are told that practical cigar makers pronounce the tobacco an excellent flavored native article. Upon application Mr. Opitz will send fresh seed to any one who will try his method.

YELLOWSTONE LAKE, (EAST SIDE.)

PORK AS FOOD.—It has been officially stated that out of 104 samples of pork recently procured at random from the meat stalls of St. Louis, three and three-quarters per cent. were actually infested by the terrible trichinæ, and thirty-nine per cent. of the 104 samples were infected by the so-called "Rainey's bodies"—whatever that may be. In view of such general prevalence of pork so diseased, it certainly becomes expedient that every person who will persist in eating such unhealthy meat should see to it that it is thoroughly cooked, to the end that the parasites that may be in it shall be rendered innocuous.

THE President, upon the suggestion of the Secretary of the Treasury, has appointed Samuel Wilson special counsel to conduct internal revenue cases in San Francisco.

THE ship *Harvest Queen* has been sunk in the Irish channel, by collision with the steamship *Adriatic*, and thirty lives lost.

The Swine Yard.

Choosing Breeds.

We find in the *Home Journal* some practical suggestions by D. Z. Evans on swine breeding, and the characteristics of the different breeds of swine. We quote as follows:

Very much of the success or failure attendant on breeding pigs for profit, whether for home use or for market, depends on the selection of suitable breeds, breeds which not only suit the peculiar or particular climate, but which suit the particular purpose for which they are desired to serve, as well as suit the management, food and attention ordinarily given. It is worse than useless for a farmer, who ordinarily gives but indifferent care and food to his swine, to expect to reap such good results from high bred pure breeds of swine as are obtained from the same breeds by careful and systematic breeders and high feeders. The only way to improve swine, and, in fact, all breeds of domestic animals, is by a systematic method of high feeding, and breeding systematically perpetuates those improvements merely. If generous feeding, on suitable foods, is not resorted to, no matter how good the breed may be you attempt to breed from, disappointment and loss will invariably ensue, for high bred animals deteriorate more rapidly under slack management and indifferent feed than do animals which have been accustomed to such fare for several generations previous. If the above few remarks be kept in mind there will be no cause for complaint that pigs from reliable breeds did not answer expectations. Nearly all of the disappointments with the high bred breeds arise from the above given reasons. I will enumerate and describe some of the most prominent breeds.

The Berkshire of the present day is the result of very many years' careful breeding and good feeding, and is deservedly popular in nearly all sections of the country, the West seeming to lead with Berkshires and their crosses. In color they are black, with the end of their tail, all four of the feet, the nose and occasionally on the shoulder white. The white on the shoulder should not be there, to suit the full taste of a fancier, though a small white spot is admissable. More white than that just enumerated does not argue impurity, though it is not desirable, as it prevents uniformity. They are easily kept, fatten at almost any age and with ordinary good care, and produce a greater proportion of lean to the amount of fat than any other breed.

The Chester White, in its purity, (there are many specimens of white pigs sent out as Chester Whites which are a disgrace to the name,) is a very desirable breed where large pork is desired, and where the color—white—is desired in preference to the black breeds. They mature at from twelve to eighteen months, and produce heavy, good pork and quantities of fine lard. They have heavy hams and shoulders, broad and deep bodies and pendant ears, with a broad, rather short nose.

The Essex is an entirely black breed, and is, by many, considered to be a very desirable one, as they attain their growth early, are highly refined, and are good to select boars from to cross with coarser breeds. There are other breeds, however, which suit me better.

The small English Yorkshire, or the medium English Yorkshire, the latter having been formed by crossing, or rather, breeding the large and small breed of Yorkshires together, possess merits which are not possessed by any other breed, to my knowledge, if a high system of feeding and care be pursued. Under the best care, feed and management they have produced better results than any I have ever bred. If you do not want a pig which requires that, do not buy the Yorkshire, but, if you do—and all farmers who are real farmers know that high breeding is the only kind of feeding that pays—by all means try the Yorkshire.

This breed produces a greater proportion of fat to the amount of lean than any other breed known, I think, which is a desirable feature with many, especially where lard is desired.

The best specimens have a thin coat of fine, soft, white hair, and have a skin of a pinkish hue, which makes them easily recognized from other breeds. They have very heavy hams, are short, deep and broad, and at certain ages their usually very short noses take an upward turn, the nose becoming heavily *dished*, in some specimens, so as to prevent them from rooting.

Smoke Preventer.—A new fuel-saver and smoke preventer, as it is called, was first shown in public in Cincinnati the other day. The principle on which it acts is as follows; A current of air is forced by means of either a syphon or a fan through distributing pipes, three in number. The first of these pipes is located in front and under the grate bars, thus forcing the air through the grate. The second pipe is placed above the fire-door, blowing the air into the fire. The third is on the bridge wall, blowing the air forward. The three pipes combined entirely prevent the formation of smoke, It is claimed for this invention that it can be successfully applied to steamships, steamboats, locomotives and even to stoves.

To soften hard gold pass chlorine gas through the molten gold, by which treatment most of the gold which had otherwise to be set aside as unfit for certain kinds of work, can be redeemed.

The Horse.

Breeding In and In.

This subject of in and in breeding has occupied the attention of some of the ablest breeders and profoundest thinkers engaged in rural pursuits. Many eminent breeders have illustrated the genealogy of the animal race by adopting the practice of in and in breeding—avoiding incestuous connections—with an occasional outcross to prevent the degenerating effects of consanguinity. How far breeding into relatives can be carried without degenerating is a subject to be determined by its practical effects. All breeds are more or less connected by blood. The thorough bred is closer in bred than any other class. He is prized higher because no strange blood has been suffered to pollute his escutcheon. Breeding twice in and once out gives a strong form or fixed type to the breed that they will be likely to transmit as a family inheritance. Breeding to relatives in the second degree does not appear to degenerate the breed. Some of our most famous stock horses have been bred to cousins and kindred through sire and dam to some favorite stallion that has given them character and patronage till they have scattered their stock broadcast over the land.

Rysdyk's Hambletonian has no less than four collateral lines, through sire and dam, running back to Messenger. Two crosses through his sire, Abdallah, and two more kindred strains through the grandam. One Eye, by Hambletonian, son of Mossenger, Lady Suffolk, one of the best trotting mares that ever appeared in public, had three crosses to Messenger, reaching that progenitor from the third and fourth generations. Dutchman, the great three-mile champion, had two strains to Messenger, only three removes from that fountain head of trotters. Gen. Knox, one of the best stock horses in this country, has four strains running back to Messenger, through sire and dam, two through his dam and grandam, by Harris' Hambletonian, who was by Bishop's Hambletonian, out of a dam by imp. Messenger, and two through Vermont Hero, whose dam and grandam were by Hambletonian or his son. Goldsmith Maid was inbred by Old Abdallah. She was sired by Alexander's Abdallah, a grandson of Old Abdallah, out of a mare by Abdallah, giving her a double cross to that famous stallion. She is incomparably the superior of any horse of modern times, and stands the peerless queen of the trotting course. She has trotted three heats in 2:20 or better, in thirteen different starts, a feat unexampled in the history of trotting. She will probably close her racing career with the present season, and will go from the turf in the triumph of victory, compelling her fleetest aspirants to trail in her dust. She leaves an enduring record that stands out in bold defiance to all her successors.

Most of the trotters have come down from a few choice mares, united with superior stallions. The mare that has bred one trotter will breed another to the same horse under the same favorable circumstances. Old Kate, the dam of Bruno and Brunette, that trotted together in double harness in 2:25½, has bred ten colts to Hambletonian and two or three to other stallions. All that were ever trained have trotted low down in the twenties. The produce of this mare must have realized to her owners for colts sold nearly $30,000. They have passed through several hands, and probably now represent in the hands of their present owners a capital cost of over $50,000.

We ought to profit by these examples. The same causes produce similar effects. The dam of Old Kate was a pacer, a very good element in the blood of trotters. She took kindly to trotting, became fast and was a stayer on the road. Uniting this mare, gifted with perfect action, to Hambletonian, a natural trotter, there were no extremes to overcome. Consequently they matched, and their colts came out with the natural easy stroke, and training made them fast. Hereditary law controls the destiny of colts. It is as fixed and immutable as the motion of the heavenly bodies. All are after their kind, is an axiom as old as the art of breeding. Great speed is the reproduction of superior action that is hereditary in the blood. Trotting instinct is the will to put the body in motion. The will power is indispensable to the performance of great tasks. It must be bred in the bone to give capacity to the body and put the machine in motion. When we get the will to put in force the physical powers we may expect continued exertion and great endurance.—*Michigan Farmer.*

The Agricultural Horse.—It cannot be doubted that the progress of horse breeding has been characterized by too much attention to the race course, and too little to the useful traits which will exist in the valuable farmer's horse. We are glad to note that at a meeting of the importers and breeders of horses for agricultural purposes, an organization was effected, to be known as the "Illinois State Association of Breeders of Horses for Agricultural Purposes;" Jas. L. Owen, Mokeno, was chosen President. We trust the formation of societies of this kind will awaken a wider interest in producing horses especially adapted to the farmer's needs.

What are they adulterating coffee with now? While Mr. Naugle, of New York, was heating some the other day it exploded, scalding his entire countenance.

Useful Information.

The Formation of Habits.

We are all familiar with the process. A movement, or series of movements, at first painfully difficult and requiring the whole thought and attention, by repetition, become so easy and semi-automatic that attention is no longer necessary. The most remarkable examples of these, such as walking, speaking and the like, probably belong partly to the third category; the capacity for these is partly inherited. Playing on a musical instrument is therefore a better example. We all know the painful attention necessary at first, and the ease and rapidity of the most complex movements attained by practice. Now, by what means, anatomical or physiological, do these at first difficult movements become, by repetition, easy? The answer in general terms, seems to be this: Every volitional act is attended with a change in the brain, which, however slight, is liable to be affected by subsequent changes, and therefore evanescent. If the same act, however, be repeated many times, the change becomes deep and permanent—becomes potrified in brain-structure, whatever be its character or its seat, determines the appropriate acts with precision. It is as if every volitional act produced a faint line, liable to be erased, on the tablets of the brain; by running over the same lines many times these are deepened into grooves and finally into ruts, and motion in these becomes easy and certain, because the ruts guide the motion instead of the will. The repetition produces structure and structure determines habit.

A New Cement.—A French chemist is said to have succeeded in preparing a mineral compound, which is said to be superior to hydranlic lime for uniting stone and resisting the action of water. It becomes as hard as stone, is unchangeable by the air, and is proof against the action of acids. It is made by mixing together 19 lbs. sulphur and 12 lbs. pulverized stoneware and glass; this mixture is exposed to a gentle heat, which melts the sulphur, and then the mass is stirred until it becomes thoroughly homogeneous, when it may be run into molds and allowed to cool. It melts at about 248 deg. Fah., and may be re-employed without loss of any of its qualities, whenever it is desirable to change the form of an apparatus, by melting at a gentle heat and operating as with asphalte. At 230 deg. Fahr. it becomes as hard as stone, and preserves its solidity in boiling water.

A Good Idea.—The Vienna railway companies subscribe among them $3,000 yearly for the endowment of a course of lectures at the Academy upon railway construction and management. The lectures are well attended, the students being, for the most part, those of "riper years." At the end of the course they are subjected to a stiff examination conducted by some of the chief railway authorities. There is no class of people who in the interest of the public more need a thorough, practical education than railway engineers and the leading employees of railway companies.

Railway Ironclads.—Cologne is to be surrounded by a chain of forts in the same manner as Metz and Strasburg. The works, which are now in course of construction, are connected with each other by a protected circular railway, which, now used for transporting material, is designed as additional means of defense, as it will convey portable ironclad batteries from point to point. Within the outer fortifications there is to be a second line, with a series of revolving iron turrets.

Boiler Incrustation.—The following remedies have been used with varying success, to prevent incrustation: First—potatoes, one-fiftieth of weight of water, prevents adherence of scales. Second—12 parts salt, 2½ caustic soda, ⅛ extract of oak bark, ⅛ potash. Third—Piece of oak suspended in boiler and renewed monthly. Fourth—2 ozs. muriate of ammonia in a boiler twice a week. Fifth—A coating, 3 parts of black lead, 18 tallow, applied hot to the inside of the boiler.

Increase in Cost of Getting English Coal.—The *Scotsman* states that "statistics, which are undoubtedly correct, show that in some districts (in that country) it takes about one hundred and sixteen men to get the same quantity of coal that was formerly got by one hundred men. This is in part, but only in small part, due to the greater difficulty in getting the coal; it is chiefly due to the fact that they do not work so hard or so long as they did."

Falling Bodies.—Experiment has shown that the velocity of a ball when it leaves the month of a cannon is about 1,300 feet per second. The hight from which the projectile would have to fall to acquire such velocity is 26,800 feet. Consequently the work actually done by the powder is equal to 219,000 foot pounds. The formula by which this result is obtained is the product of the weight of the ball multiplied by the hight due to the velocity.

To render glass impervious to the direct rays of the sun, but not so opaque as to exclude light, powder some fluorspar and mix it with sulphuric acid, and rub the mixture on the glass with a piece of lead. Then heat the glass on some stove or other arrangement by which the fumes can pass up the chimney; and when cool, wash the plate with a dilute solution of potash, and rinse in water.

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and at Washington.
Examinations Ordered and Reported by Telegraph.
Examinations made of Assignments Recorded in Washington.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of Patents and Assignments.
Rejected Cases taken up and Patents Obtained
Every legitimate branch of the Patent Agency Business promptly and thoroughly conducted.
Send for Circular

DEWEY & CO.,

Publishers of the Mining and Scientific Press and Pacific Rural Press.

"The Public Lands of California."

The demand for this new work is steadily increasing, and the more widely that its merits are becoming known, its usefulness to everyone is becoming more fully demonstrated. The map of California and Nevada alone is worth more than fifty cents, the price asked for the work, and the fact that a glance at its pages shows the leading products, population, etc., of each county in the State, besides a list of the surveys of United States Land, subject to the homestead and pre-emption laws of Congress; a correct copy of the laws of Congress in regard to locating and holding this land, etc., renders it of inestimable value. Orders sent to Dewey & Co., enclosing fifty cents, will meet with prompt attention, as it will be forwarded immediately post paid.

Renew Your Subscriptions.—With encouraging rains, good crop prospects, a rapidly increasing population, public improvements and new manufacturing and industrial enterprises springing up throughout the coast, we believe the ensuing year will be one of such progress and importance that no subscriber of the Press can afford to miss the record of events and discoveries which will be reported in the successive issues of this journal.

Better Returns, etc.—One of the largest business firms in Sacramento writes us, October 30th, 1875, remitting the cash for advertising, and a new order with the following remark: We are more than gratified with the result of our advertising in the Press. It has brought us better returns than any paper we have ever patronized. Yours truly, J. G. & Co.

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood Superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article.

Ask your Grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F
fe6-eow

GUADALUPE ISLAND COMPANY.

Notice is hereby given that the Annual Meeting of the Stockholders of the Guadalupe Island Company, will be held at its office, 207 Sansome street, San Francisco, Cal., on Monday, January 31st, 1876, at 3 P. M.

Arthur Rodgers, Secretary. Benjamin Flint, President.

CHAS. H. PHELPS,

ATTORNEY AT LAW,

306 PINE ST., N. W. Cor. Sansome, SAN FRANCISCO

☞Especial attention given to cases involving Mining, Patent or Commercial Law.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, Importer and breedor of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

WILLIAM KNOWLES, P. O. Box 337, Oakland, Cal., has for sale Eggs for Hatching, carefully packed, from Brown Leghorns at $4 per doz. Houdans, White Leghorns and Buff Cochins at $3 per doz; two doz. for $5 Sent C. O. D. to any address.

Lands and Homes for Sale.

Rich Farm Land For Sale.

L. F. MOULTON, of Colusa,

OFFERS FOR SALE VERY CHEAP, FOUR THOUSAND ACRES OF EXTRA WHEAT OR VEGETABLE LAND, ADJOINING WHICH HAS GROWN FORTY BUSHELS TO THE ACRE THIS YEAR, AND IS EASY TO IRRIGATE, YET HIGH LAND, AND ON THE LINE OF THE COLUSA AND CHICO RAILROAD.

This is the best and cheapest land in the State.

Address the owner, at Colusa, for particulars.

FRUIT RANCH FOR SALE.

Ten miles south-east of San Bernardino. Eighteen acres of vineyard. Ten acres of alfalfa. Several thousand young fruit trees. Abundance of water. Beautiful location and only five miles from the railroad. Terms easy. For particulars, address

WM. CRAIG, San Bernardino, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART, Eureka, Humboldt Co., Cal.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,

San Francisco.

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO, CAL.,

MANUFACTURERS OF

LINSEED, CASTOR AND COCOA NUT OILS,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our Works.

Office—3 and 5 Front Street.

The attention of Wool Growers is cordially invited to the

Thoroughbred Stock Bred and Kept on the MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 P. M. and have an hour at the ranch, returning on Overland train at 6 P. M. Or, coming out in morning, can return to city at 11 A. M. The proprietors make the

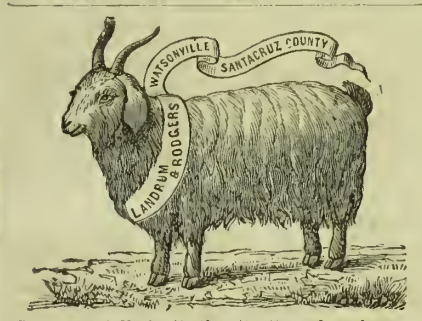
THOROUGHBRED SPANISH MERINO SHEEP A SPECIALTY,

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

10v7-eow Importers and Breeders of Spanish Merino Sheep.

Miscellaneous Notices.



We respectfully invite the attention of wool growers to our fine stock of Cotswool Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-eow-tf Watsonville, Cal.

DAVID WOERNER,

COOPER,

No. 104 and 112 Spear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required.

eow-bp.

H. K. CUMMINGS. 1858. H. H. BALSTON, 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the producer 4v28-1y

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—cost nearly $245,000. Will be kept First-class, at $2.00 per day, and less by the week or month.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

LEVI STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.

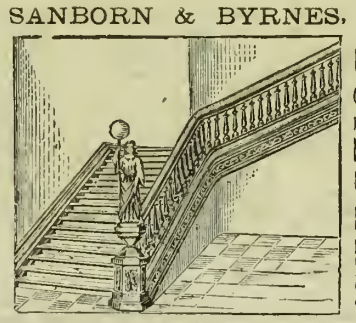
These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

SANBORN & BYRNES,

STAIR



BUILDERS.

Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-bp

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine imported Australian, French and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,

433 California Street, S. F.

(Merchants' Exchange.)

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the O. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

California Farmers' Mutual Fire Insurance Association.

No. 6 Leidesdorff St., Rear of Grangers' Bank.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't — I. G. GARDNER, V. Pres't
G. P. KELLOGG, Treasurer — A. W. THOMPSON, Att'y
I. C. STEELE, San Mateo — CHAS. LAIRD, Salinas
A. WOLF, Stockton — A. D. LOGAN, Colusa
W. H. BAXTER, S. F. — G. W. COLBY, Butte Co
J. C. MERRYFIELD, Dixon — C. J. CRESSEY, Oakland
A. B. NALLY, Santa Rosa — E. W. STEELE, S. L. Obispo
FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$3,026,378.00
TOTAL PREMIUMS	63,306.49
LOSSES PAID	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

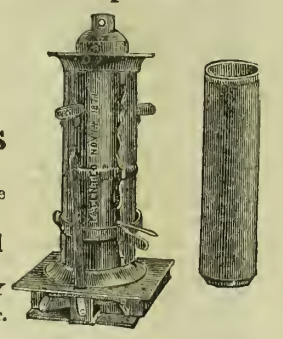
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm Erkson, L. F. Ohipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Office of Drain Pipe Works

S. W. Corner Sacramento and Montgomery Sts., S. F.



DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

E. T. MENOMY

Proprietor.

Allen's Planet Jr.

SILVER MEDAL

Hand Seed Drills and Wheel Hoes, perfected for '76. FOUR sizes! They "sow *like a charm;*" *no packing* of seed in the hopper, *no crushing* it, *no pausing* or *waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, no "*skips,*" *no noise, no equal!* THE DOUBLE WHEEL HOE works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable COMBINED MACHINE possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our NEW HORSE HOE, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. **We must have a Live Agent in Every Town.**

THOROUGHBRED JERSEY CATTLE.

FOR SALE, twelve bull calves of 1875—three yearling bulls—Also cows and heifers bred from the best Imported stock. Address,

A. MAILLIARD,

San Rafael, Marin County, Cal.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

Agricultural Notes.

BUTTE.

Good Wheat.—*Record*, Jan. 15: There never was in the history of the State a better prospect for an abundant wheat crop than the present season has thus far afforded. The loss sustained last year by the wind threshing out the grain before the headers had done seems now to be returned tenfold in the promise of a volunteer crop, of which there are thousands of acres, rivalling the choicest summer fallows. Particularly is this the case on the adobe or black lands of Butte and Dry creeks. The wheat lands of Chico township are always productive. Specimens of growing grain from the fields of J. M. Decker, near Nelson's station, show a healthy and vigorous growth of over one foot. The specimen shown us was pulled on Friday of last week, and gave promise of an early and abundant harvest. Mr. Decker has over 3,000 acres of growing grain near the station. Indeed, the whole valley is almost one continuous grain field, and from present appearances will load many a ship for the markets of the world.

Sheep Sold.—*Mercury*, Jan. 14: Several large flocks of sheep have lately been sold to go below to be killed. The many warm rainy days that we have had this winter has made the grass grow so rapidly that stock of all kinds is fattening almost as fast as during the last part of March.

KERN.

The Sand Storm.—*Courier*, Jan. 15: Further reports state that not less than 30,000 sheep perished in the late terrific storm on the Tejon plains. Many of them were completely buried by the drifting sand. Seeking some little hollow or depression as a partial shelter from the fury of the blast, they stood in rows and squads until the sand swept over them in waves and covered them. Some were caught by the wind and bowled along on the hard ground like balls, bruising and killing them; others were literally beaten to death by the stones and boulders that were hurled as from a catapult. Their carcasses, it is said, may now be seen for many miles, scattered far and wide over the plains. Here is a chance for those who are out of a job. The skins of these animals are worth five or six bits apiece, and a lively trade might be carried on in this business by any enterprising party.

LOS ANGELES.

The Prospect.—*Herald*, Jan. 15: Up to yesterday morning twelve and eleven one-hundredths inches of rain had fallen in this valley for the season. The rains have extended over such a considerable area and the fall has been so gentle that the greatest possible amount of good has been done. The entire fall has been absorbed by the soil, which is moist to a greater depth than it would have been had the twelve inches fallen heavily and within a few days. It is probable that we shall have a fall of five or six inches more during the spring, but should there be more rain this season, the farmers assure us there will be good crops. A glance at the prospect gives guarantee of an unusually prosperous season. The good crops together with the great increase of acreage seeded indicate that the products of our valley this season will be so largely in excess of any former year as to astonish the most sanguine citizen. Owing to the considerable increase in the number of bearing trees the fruit crop will be much larger than ever before.

MARIPOSA.

Golden Trout.—*Bee*, Jan. 12: Mr. Hutchings, of Yosemite, states that near the headwaters of the Kern, at an altitude of 11,500 feet, he has discovered a new and beautiful fish, which he named the "Golden Trout." In color it is as deep, but of a richer hue than the gold fish itself, and is dotted with black spots a quarter of an inch in diameter, and has a black band along its sides. It grows from six to eight inches long in its habitat, but if it were where fish food is more plentiful it would doubtless become much larger. It it can be acclimatized in the coast streams it would be a beauty in ponds.

MONTEREY.

Apples.—*Democrat*, Jan 15: We are indebted to Mr. Eugene Sherwood for a box of choice apples from his orchard. The box contained samples of a half dozen varieties, all being excellent. Alike pleasing to sight, smell and taste, we have no hesitation in saying that we have seen no such fruit in this place brought from Oregon or from orchards outside of the county. In a note accompanying the box of apples, Mr. Sherwood remarks that, "the best apple and pear soils of Salinas valley are to be found in the canadas of the foothills, east. Noting them in order of value, blue loam and chocolate loam, where streams supply perennial submoisture, are the best soils. Without doubt the Salinas valley could furnish stone fruit and all varieties of fruit cognate to apple, also nuts and berries, in perfection and in quantities to meet all possible requirements of the city of San Francisco. The fig, pomegranate and orange can be grown in canadas where the thermometer never registers a freezing point or in what are called 'thermal spots,' of which, doubtless, there are many on the skirts of the valley."

NAPA.

Peaches.—*Recorder*, Jan. 15: We have been shown an invoice and bill of lading of fifty Chinese cling peach trees, and three apple trees of the southern winter varieties, shipped on the 5th inst. by Messrs. R. G. Craig & Co., of Memphis, Tennessee, to Mr. A. V. Evans of this county. The Chinese cling will be found the most superb of the peach kind, for flavor, size, beauty and productiveness. They are to be planted on the mountain, and we expect something extraordinary from them. The winter apples from the south will also prove a great success.

SAN BENITO.

The San Justo Rancho.—*Advance*, Jan. 15: We publish to-day a list of the deeds filed the past week for record in the county clerk's office by the stockholders of the San Justo association, W. W. Hollister, the grantor of the lands, having received the final payment and made deeds of conveyance to each individual interested The San Justo rancho embraces 43,681,85-100 acres, or four leagues, more or less, within certain stated boundaries, particularly described in the original Mexican grant to Castro, from whom it was transferred to Pacheco. Senor Pacheco sold the ranch to Flint and Hollister for $20,000, an amount of money considered equal to the value of the land at that time. The ranch was subsequently divided, Benjamin Flint paying Col Hollister a bonus of $10,000 for his choice. The Col. expended considerable money in the construction of seven or eight miles of fencing, erected a mansion, and for several years devoted his attention to sheep-raising upon his 20,772 acres. The San Justo homestead association was organized October 10th, 1868, with a capital stock of $370,000. The stock consisted of fifty shares at $7,400 each. The lands were equitably partitioned off into fifty lots, valued according to quality and quantity. A tract of one hundred acres for a town site and outside hill lands were reserved for sale, to accrue to the profit of the association. The sum of $100,000 was paid to Col. Hollister at the date of purchase, and it was arranged that the balance, $270,000, should be paid on or before the expiration of seven years, to bear interest at the rate of ten per cent. until paid. The last installment, amounting to $175,000, has just been paid, and all obligations being discharged, the association is about to disorganize. The taxes, interest and expenses of the association have amounted to over $30,000 per annum, but these expenses have been more than covered by the premiums paid for choice of lands and the revenue derived from the sale of reserved lands The premiums brought $90,000, the outside lands, $77,500, and the town lots $100,000. The farm lands have materially increased in value. The town corporation of Hollister now extends over four hundred acres, and the whole property of the San Justo association is probably worth to-day, at a moderate estimate, very little less than $2,000,000.

SAN LUIS OBISPO.

Crop Prospects.—*Tribune*, Jan. 8: There is a greater breadth of seeding this early in the season, than ever before put in in the county. Judge Leff, who dry-sowed barley on the Corral de Piedra, near the pitch mine, reported to us two weeks ago that it was growing so rank that he had to put sheep upon the field to keep it within bounds. Volunteer is knee deep and will furnish ample feed for stock for the next six weeks, or until the season to let it grow up for grain. Sheep and cattle are fat, and assure stockmen ample returns in butter, cheese and wool. All nature is full of promises for the future.

SANTA CLARA.

Los Gatos Lemons.—*Mercury*, Jan. 15: Wherever the experiment has been tried, in our foothills, to grow the orange and lemon, the most flattering results have been realized. Until recently we have had but few facts to chronicle in relation thereto, other than that the trees withstood the light frosts of winter and were making a fine growth. Being comparatively slow growers, it is only quite recently that any of them have commenced bearing; and now, within the last few years, large numbers of these trees have been planted. We have on our table a lemon from a tree grown on W. H. Rogers' grounds at Los Gatos, which, for size, beauty, and we doubt not, for flavor, is equal to any lemons we have seen grown in this State.

Potato Yield.—Sixty acres of land at Gilroy produced 1,080,000 pounds of potatoes last year, the market value of which was $13,500.

SISKIYOU.

Plowing.—*Union*, Jan. 8: In some parts of the county plowing has already commenced, and in others farmers are getting their plows ready so as to be on hand "to make hay while the sun shines." At the Heard ranch at Sheep rock, and at N. Cash's farm the plows are running. On Mr. Thomas Orr's farm in Shasta valley, two gang plows have been kept running all winter, and in several other localities we hear of plowing going on. The ground on Little Shasta is too wet as yet to plow, however. Owing to the nature of the soil, a great deal of the plowing is done in that locality in the summer season. From what we can learn, there will no doubt be considerable new ground broke up this season.

SONOMA.

Our Farming Possibilities.—*Flag*, Jan. 13: Rev. R. Corbaley's farm is in the rich bottom land between Russian river and Dry creek, and about one mile south of Healdsburg. He has twenty-five acres in alfalfa which is very promising. We visited his place last Saturday, the 8th of January, and pulled several stalks of alfalfa which had grown since the fall rains set in. On measuring, we found them to be over two feet in length. We visited his strawberry bed and picked and ate of the ripe fruit; green berries and blossoms were abundant. Mr. Corbaley has five acres in orchard which has been planted thirteen years; many of the trees are a foot in diameter near the ground. In one season he sold from this orchard fruit to the amount of $500, besides supplying a large family (and numerous friends, to our own personal knowledge).

Wm. N. Glasdden's ranch adjoins the above, and he gave us a statement of what can be done in the way of raising Mangel Wurtzel beets. From seven-eights of an acre he sold thirty tons, at $5 per ton, and from two acres which he cultivated between the rows of a young peach orchard he raised forty tons One hundred dollars per acre realized from the waste land in a peach orchard ought to satisfy the most skeptical that our higher priced lands can be made to pay.

Mr. Priest came to Healdsburg about five years ago from the East and purchased a few acres of second quality farming land adjoining the city on the north side, which he has planted in orchard and vineyard. Many of his trees bore fruit the second and third year. Last season being the fourth year after planting, he kept accurate account of fruit sold, which amounted to $3 per tree for peaches, $2 for almonds, $1.50 for plums, and grapevines fifty cents each. Some of the almond trees four years old are five inches in diameter. His plum trees bore seventy-five pounds each, and his grapevines twenty-five pounds each.

STANISLAUS.

An Opinion.—*News*, Jan. 14: Mr. J. D. Peters, one of the heaviest dealers in wheat in the State, and an old pioneer settler of the San Joaquin valley, has been traveling, to some considerable extent, over the fields of this county. He informs us that he finds the cultivation of the soil as a general thing much better than formerly. There is also a general desire to improve the quality of wheat raised. He also looks upon the prospects of a heavy yield as very flattering. Certainly there are but few men in the State more competent to judge in reference to such matters than Mr. Peters.

TULARE.

District Fair.—*Times*, Jan. 15: It should be remembered by our citizens that there is a call for a meeting in Visalia, Saturday, January 22d, to make preliminary arrangements for a district fair for this section of the State. We see no reason why a fair held here would not be equal to any ever held in this State. We ask a hearty co-operation of our citizens and especially of Visalia and vicinity. We hope Fresno and Kern counties will unite with us and make it the grand success that our great resources and facilities call for. We know of no enterprise that would do more to encourage home industry and bring before the world this portion of our great State.

Swamps Fast Disappearing.—Within a year a large area of country east of Visalia, known as the Kaweah swamp, has been reclaimed, not only from overflow but growth of willows, which, after clearance, becomes very valuable, in fact these are our garden lands. In Mr. Hugh Hamilton's neighborhood, ten miles east of here, large quantities of Irish and sweet potatoes, cabbage and other vegetables have been produced with fine results; Newman brothers have supplied one house with nearly $2,000 worth of vegetables. That portion of the county was formerly inundated nine months of the year; these lands when cleared seem to yield enormously, and when sown in alfalfa, afford five crops of hay, besides a winter pasture. We expect within a year to see every willow uprooted and substituted with strawberry, blackberry and vegetable fields, and as for a market, that need no longer be the question, for within four months the Southern Pacific railroad will have reached the Colorado, giving an outlet to all our surplus, and active preparations should be made to unite markets.

YOLO.

Almond Planting.—*Mail*, Jan. 15: Frank Jackson has purchased from Geo. W. Myrick the ten acres in D. A. Jackson's subdivision, east of the railroad, which now gives him twenty acres of that rich and productive land. He will plant about 150 trees to the acre, from which he expects to gather from five to eight pounds of almonds to the tree, which, at the current market price of twenty cents per pound, will bring him a nice profit. We also learn that Mr. C. Buob, living some four miles west of Cacheville, has planted three or four hundred almond trees, having experimented on a few trees and found them to yield more than double the amount the same ground would produce in wheat.

Gardening for Pleasure.—Many of our readers no doubt already have the works on gardening written by the senior member of the firm of Peter Henderson & Co., Seedsmen and Florists, 35 Cortlandt street, New York. We are glad to see that Mr. Henderson has just written a new book, expressly to meet the wants of the novice in gardening, and which he calls "Gardening for Pleasure." It is written so plain that any one, however ignorant in gardening matters, will have no difficulty in putting its teachings into successful practice. This book, as well as his former ones, is offered by Peter Henderson & Co. in their advertisement in another column.

E. Y. Teas & Co., the Rose Growers, Richmond, Ind., offer free to all applicants their handsome Descriptive Catalogue. For years past their collection has been unsurpassed, and it is improved yearly. All kinds of plants mailed, and warranted to arrive in good order.

Woodward's Gardens embraces an Aquarum, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink,

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., Jan 18th, 1876.

For Week Ending January 4th, 1876.

Compounds for Soldering Blocks.—Lucien Houriet, San Jose, Cal.

Dust Pans.—Walter J. Parker, San Jose, Cal.

Ore Concentrators.—James M. Thompson, S. F., Cal.

Cattle Wash.—Albert Sievers, S. F., Cal.

Box Trimming Machine.—George W. Swan, S. F., Cal.

Baggage Checks.—John F. Wheeler and Henry A. DeHaven, San Quentin, Cal.

Reissue.

Gong Attachment for Engine Houses.—Robt. Bragg, S. F., Cal.

Trademark.

For Watches and Other Time Pieces.—John Gordon, S. F., Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

The annual Vegetable and Flower Seed Catalogue of Gregory, the well-known seedsman of Marblehead, Mass., is advertised in our columns. We can endorse Mr. Gregory as both honest and reliable. The bare statement of the fact that he grows so large a number of the varieties of seed he sells, will be appreciated by market gardeners, and by all others who want to have their seed both fresh and true.

Thoughtlessness.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

The Scandinavian and German Immigration and Employment Office,

610 Merchant Street, near City Hall, S. F.

Since July, 1875, consolidated with the old California Labor Exchange, established in 1868. Located in the business center of San Francisco, with agents in the East and the mother countries of Europe, and mastering all the principal European languages, we have unsurpassed facilities for complying with any demand on us for male and female help in any capacity and of any nationality, at reasonable terms. A lady attends to the female department. Scandinavian, German, French and American help our specialty. We can furnish farmers with any number of Scandinavian and German help, if timely notice be given. Hotels and private families supplied with French and German waiters. When female help is wanted in the country, the remittance of the passage money in advance is indispensable. Your orders will be filled promptly and conscientiously if addressed to

V. de BRETTEVILLE & CO.,
[P. O. Box 1436.] San Francisco, Cal.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

TRAVELING AGENTS WANTED

For this paper. Experienced canvassers can make excellent wages. None but intelligent persons of good recommendation need apply.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

Office and Address,

No. 166 TEHAMA STREET,

Cor. Third, bet. Howard and Folsom, San Francisco.
eowbp

$250 A MONTH.—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, January 19, 1876.

During the last week there has been rather more life in trade than the week before. It is, however, the dull season and transactions are light.

In Wheat there has arisen a firmer feeling among holders, thongh the prices gained do not show marked difference.

The conrse of the Liverpool quotation to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices.

	Average.	Club.
Thursday	10s 3d@10s 8d	10s 8d@11s —
Friday	10s 5d@10s 9d	10s 9d@11s 3d
Saturday	10s 5d@10s 9d	10s 9d@11s 3d
Monday	10s 5d@10s 9d	10s 9d@11s 3d
Tuesday	10s 4d@10s 6d	10s 9d@11s 3d
Wednesday	10s 4d@10s 6d	10s 9d@11s 3d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	13s 9d@14s —	14s —@14s 3d
1875	9s 3d@ 9s 6d	9s 6d@10s 3d
1876	10s 4d@10s 6d	10s 9d@11s 3d

During the week eight Wheat vessels have cleared for Liverpool. The British ship *Donne Castle*, 941 tons, is reported chartered to take Wheat at Astoria for Liverpool at £3 10s per ton. The export movement of Flour has been large.

The Directors of the San Francisco Produce Exchange have for some time been collecting data respecting the supply of Grain in the Stste at the commencement of the year, and the result shows 57,800 bhls Flour, 2,800,000 ctls Wheat, 833,000 ctls Barley, 52,000 ctls Oats, 60,000 sks Corn and 5,700 sks Rye. We are indebted to the Secretary, William H. Walker, for a copy, showing the sources of supply, which for Wheat and Barley are as annexed:

	Wheat.	Barley.
S. F. and Oakland, includ'g Wheat afloat in harbor, ctls	411,068	196,208
Northern coast, Russian river and Petaluma	126,080	19,030
Naps Valley R. R., Vallejo and California Pacific R. R.	475,600	37,500
Sacramento valley and river	599,300	25,900
Lower Sacramento, Lower San Joaquin and Suisuu bay	153,286	48,113
San Fran. bay landings, E. side	93,167	169,308
W. P. R. R. from San Lesndro to Livermore	125,520	89,046
Stockton and San Joaquin	574,050	13,450
S. P. R. R. from Redwood to Hollister, including Alviso	151,191	41,939
Salinas and Pajaro valley	103,081	83,392
Southern coast	9,622	109,482
Totals	2,821,965	833,368

The aggregate Wheat crop of the United States, for the past several years, is ststed as follows:

Year.	Bushels.
1860	173,105,000
1870	287,746,000
1871	230,722,000
1872	249,097,000
1373	281,372,000
1874	286,000,000
1875	240,000,000

The crop of 1875 is based upon the estimates of Washington authorities.

Concerning the course of the European Grain trade the following is telegraphed from the *Mark Lane Express* of January 17th:

"Winter returned last week with greatly increased severity, but the change from mild and damp weather has been serviceable to newly threshed samples, which had scarcely found buyers on account of their miserable condition. To this we attribute the moderate decline in averages, rather than any actual reduction, but we can hardly rely upon a full recovery in condition until March sets in. So we have six weeks before we can expect much benefit, though the land has been getting somewhat drained of superfluous moisture in preparation for spring planting. We note by weekly sales that now we have exactly reached the average of last year, when the crop was a good one. Unless imports continue to be overdone, which with Northern ports closed, and New York quotations fully five shillings per quarter dearer, seems quite improbable, there must eventually be a recovery in prices as our wants become conspicuous. More firmness is evinced at Paris and some provincial markets, also in Belgium; but the Dutch and German markets have ruled dull, roads and canals being obstructed by ice and snow. The latter seems to have been more plentiful in other parts of Europe than in England."

The following table shows the hay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the week before:

Receipts of Domestic Produce.

Articles.	Week Ending January 12.	Week Ending January 19.
Flour, quarter sacks	7,244	58,530
Wheat, centals	91,866	136,543
Barley, centals	9,839	5,491
Beans, sacks	1,143	1,023
Corn	210	139
Oats	2,816	6,746
Potatoes, sacks	13,631	7,053
Onions, sacks	923	1,295
Wool, bales	173	162
Hops, bales	115	126
Hay, bales	1,767	1,179

Bags—Quotations for Bags are advanced in answer to a firmor feeling among holders. Standard hand sewed are held firmly at 11c or above. We hear of a cash offer for 700,000 at 11c being refnsed.

Barley—Barley is in little hetter request. There is more inquiry for shipping Eastward. We note sales as follows: 1,000 sks Coast Feed at $1.15 on wharf; 1,100 sks Feed, $1.17½; 700 sks choice Bay, for the Esst, $1.32½; 2,100 do Bay Feed, $1.25; 200 do do, $1.22½; 1,600 do Coast Feed, $1.17½; 800 do poor Chevalier, $1.17½; 400 sks choice Coast, $1.25; 100 tons Bay Brewing, for the East, delivered at Oakland, $1.28 cash; 500 sks choice Coast Feed, $1.17½, Bay do, $1.20 ₱ 100 lbs. A lot of 300 sks light Bay Brewing is reported sold at $1.25; 500 do good, $1.30; choice do, $1.35.

Beans—Beans are in fuller supply and lower.

Corn—Corn is in light supply and brings improved figures. We note sales 550 sks large Yellow at $1.17½; 300 sks damaged large Yellow, $1.10; 600 do good do, $1.17½; 300 do do, choice, $1.20 ₱ 100 lbs; small Yellow old Corn has been sold at $1.35.

Dairy Produce—Dairy Produce is plenty and lower. Eggs have dropped to 37½c for best. Cheese is unchanged.

Feed—Hay is quotable at a wide range of $14@19 per ton, according to quality. The supply is ample. Sales of 48 tons good Wild Oat, $15; 88 do good Wheat, $18.50 per ton. Oats are coming in in larger quantities and sell for high prices. We note sales of Oats: 200 sks Coast Feed, $2.05; 400 do fair Bay, do, $2.15; 150 sks choice Surprise, $2.35; 200 do fair to good Coast Feed, $2.12½@2.20; 100 do good do, $2.15 per ctl.

Fresh Meat—Prices for Fresh Meat are unchanged, but the market is strong. The provision market generally is firm with a hardening tendency. The demand is active for the season. Hams are quoted lower.

Hides—We note sales of Dry Hides at 16½c; Green at 6c ₱ lb.

Hops—Hops are dull and prices are nominal. The Eastern market is slightly improved.

Potatoes—Potatoes are now in large supply and prices are easier. We note sales of 100 sks fair to choice Tomales and Petaluma, $1.35@1.45; 200 choice Petaluma, $1.50 per ctl; small sales of choice Petaluma and Tomales, $1.50 per ctl; 1,000 sks Southern red, $1.40 per 100 lbs. Anything below choice is hard to sell except at lower figures.

Onions—Quotations for Onions are unchanged. We note sales 100 sks Union City at $1.10@1.12½; 150 sks choice Union City, $1.05; 75 do good do, $1; 50 do Stockton, 90c per ctl.

Poultry and Game—Poultry is quotable at a msrked advance. The approach of the Chinese New Year closes a corner on roosters. The demaud is active.

Seeds—Seeds are unchanged.

Wheat—The Wheat market is firm. We note the following sales: 300 sks choice Milling, $1.95; 1,100 sks Coast, $1.78¾; 53 tons Shipping, $1.85; 1,500 sks fair Shipping, $1.80; 1,000 do good do, $1.85; 1,200 do delivered at Oakland wharf, $1.85; 300 do good, $1.87½; 250 sks good, $1.85; 500 do do Milling, $1.90; 500 do, choice do, $1.92½; 1,700 sks good Milling, $1.90; 6,000 do Milling, delivered at Vallejo, $1.82½; 2,000 do fair Shipping, $1.81¼; 500 do do, $1.80; 2,300 sks good, $1.87½; 1,200 sks choice Milling, $1.92½; 500 sks do, $1.90; 1,100 sks do $1.90; 2,200 sks Shipping, $1.85; 600 sks ordinary Milling, $1.75; 1,600 do do, $1.85; 800 do choice Milling, $1.95.

Wool—Wool is lifeless on this market and quotations are little more than nominal. The telegraphed Eastern markets are as follows:

New York, January 15th.—The market has a better appearance this week, and there have been larger orders from manufacturers. Some few lots have changed hands among dealers, and at the close a cheerful and more confident feeling was noticeable almost everywhere. The increased demand is due, to some extent, to a better inquiry for fine cassimeres for spring wear, and though prices of that material have not advanced, they are firmer. For California Wool the demand has been quite fair and prices have remained very steady. The sales are 1·9 bls Fall, at 16@18½c for hurry, and 20@23c for free; 132 bls scoured Fall, 58½@60c; 3,000 lbs pulled, private; 2,000 lbs heavy Spring, 25c; 5,000 lbs free Spring, 29c; 10,000 lbs burry Spring, 20c; 5,000 lbs slightly Spring, 23c; 30 bls free Spring, private; 12 hls scoured pring, 60@62½c; 6,000 lbs Bucks', private.

At Boston there has been considerably more inqulry for Wool, and only the close scrutiny which credits are subjected to has prevented still larger transactions. There has been some talk as to the probabilities for the coming seasou on Spring California, which will begin to arrive in about two months. The idea is that values will open lower than a year ago; but should the times warrant the running of woolen mills, then Wools will be more likely to open higher than a year ago. Sales of California include 355,000 lbs Fall at 14@14½c; 99,000 lbs Spring, 21@26c; 2,500 lbs Scoured, 60@66c.

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday M., January 19, 1876.

FRUIT MARKET.			
Oranges Mex. ₱ M	15 00	@	35 00
Tahiti, do	—	@	—
Cal. do	15 00	@	40 00
Limes, Mexican, ₱ M	10 00	@	—
Malaga Lemons, ₱ bx	12 00	@	14 00
Cal. ₱ 100	2 00	@	3 00
do Sicily ₱ b'x	12 00	@	14 00
Bananas, ₱ bnch	2 50	@	4 00
Cocoanuts, ₱ 100	7 00	@	9 00
Pineapples, ₱ dz	7 00	@	8 00
Apples, ₱ box	1 00	@	1 25
do Choice	2 00	@	—
Blackberries	—	@	—
Figs	—	@	—
Huckleberries	—	@	—
Strawber's ₱ ch	—	@	20 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ ch	—	@	—
Quinces ₱ hx	—	@	—
Orsnberries ₱ bhl	13 00	@	14 00
Peacnes, ₱ hx	—	@	—
Pears, ₱ bx	75	@	1 00
do Choice	2 00	@	3 00
Crab apples, ₱ bx	—	@	—
DRIED FRUIT.			
Apples, ₱ lb	7½	@	9
Pears, ₱ lb	8	@	13
Peaches, ₱ lb	12	@	13
Apricots, ₱ lb	14	@	15
riums, ₱ lb	7	@	8
Pitted, do ₱ lb	18	@	20
Raisins, imported	3 25	@	3 75
Cal. Raisins	8	@	12½
Black Figs, ₱ lb	9	@	10
White, do	8	@	10
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10
VEGETABLES.			
Asparagus	—	@	—
Beets	—	@	—
Cabbage, ₱ 100 lbs	50	@	62½
Carrots, per ton	8 00	@	10 00
Cauliflower, doz	50	@	75
Celery, doz	50	@	75
Garlic, ₱ lb	—	@	8
Green Peas	—	@	10
Green Corn ₱ doz	—	@	—
Sum'rSquash ₱ box	—	@	—
Marro'fat Sq'sh, tn	6 00	@	8 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Parsnips	—	@	—
Shell Beans	2	@	3
Peppers, green, ox	75	@	1 0
Okra	4	@	5
Cucumbers, ₱ box	1 25	@	1 75
Tomatoes, box	1 00	@	1 5
Egg Plant, bx	—	@	—
Rhubaro	—	@	—
Lettuce	—	@	—
Turnips, pr ton	—	@	—
Mushrooms, lb	8	@	10

RETAIL GROCERIES, ETC.

Wednesday M., January 19, 1876.

Butter, Cal. ch'ice	35	@	45
Cheese, lb	18	@	30
Eastern	25	@	30
Lard, Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam. bl'd	25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wh. crsh'd	12½	@	13½
do lt. brown, lb	8	@	9½
Coffee, green, lb	23	@	35
Tea, fine blk, 50, 65, 75		@	1 00
Tea, finst Jap, 55, 75, 90		@	1 00
Candles, Admant'e	15	@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powders, doz	1 50	@	2 00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Bowen's Cream Tartar lb	—	@	75
Can'd Oysters, dz	2 00	@	3 50
Syrup, S F. Gol'n	75	@	1 00
Dried Apples	10	@	12½
Dr'd Gor. Prunes	12½	@	14
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz. bot	3 00	@	4 50
Whisky, C.B. gal	3 50	@	5 00
Fr. Brandy	4 00	@	8 00

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., January 19, 1876.

BEANS.			
Bayo, ₱ ctl	—	@	2 50
Butter	1 25	@	—
Pea	—	@	1 90
Pink	1 90	@	2 00
Sm'l wh	1 70	@	1 75
BROOM CORN.			
Common, ₱ lb	2	@	3
Choice, do	4	@	5
COTTON.			
Cotton, ₱ lb	15	@	18
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Fresh Roll per lb	27½	@	30
Point Reyes	30	@	3
Firkin	27½	@	30
W'st'n Reserve	17	@	22½
New York	2½	@	30
CHEESE.			
Cheese, Cal., new	14	@	17
do Old	14	@	17
Eastern	16	@	20
EGGS.			
Cal. fresh ₱ doz	35	@	37½
Ducks'	—	@	35
Oregon	30	@	35
FEED.			
Brau, per ton	—	@	22 50
Corn Meal	29 00	@	30 00
Hay	15 00	@	19 00
Middlings	32 50	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	60	@	70
FLOUR.			
Extra ₱ bbl	5 75	@	6 12½
Superfine	4 75	@	5 00
FRESH MEAT.			
Beef 1st quality lb	9	@	10
Second do	6	@	8
Third do	5½	@	6
Spring Lamb	—	@	15
Mutton	5	@	6
Pork, undressed	6¾	@	7
do, dressed	—	@	9¾
Veal	5	@	7
Milk Calves	8	@	8½
GRAIN, ETC.			
Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Chevalier	1 30	@	1 50
Corn, White	1 05	@	1 10
do Yellow	1 12½	@	1 20
Oats	2 00	@	2 25
Rye	1 50	@	1 55
Wheat shipping	1 85	@	1 90
do milling	1 90	@	1 95
HIDES.			
Hides, dry	15	@	16½
do wet salted	7	@	7½
HONEY, ETC.			
Beeswax, per lb	25	@	27½
Honey in comb	18	@	22½
do Strained	6	@	12½
HOPS.			
New crop	10	@	12
NUTS—Jobbing.			
Alm'ds h'rd sh'l lb	8	@	10
do, soft sh'l	16	@	20
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18
ONIONS.			
Union City ctl	—	@	1 12½
Stockton	50	@	1 00
POTATOES.			
Petaluma	1 20	@	1 40
Salt Lake	1 65	@	1 70
Sac River	1 00	@	1 25
Humboldt	1 25	@	1 50
Early Rose	—	@	2 25
Sweet	—	@	3 00
POULTRY & GAME			
Hens, per dz	7 50	@	8 00
Roosters	8 00	@	10 00
Broilers	6 00	@	7 00
Ducks, tame, dz	12 00	@	13 00
do Mallard	3 00	@	4 00
do Canvass	4 00	@	4 50
Geese, per pair	2 50	@	4 00
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	15	@	16
do Dressed	17	@	18
Quail, per doz	1 00	@	1 75
Snipe, Eng., doz	1 50	@	2 00
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	3 00
PROVISIONS.			
Cal. Bacon, L'ght	15	@	15½
do Medium	14	@	14¾
do Heavy	14	@	—
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'n Should's	—	@	10
Hams, Cal	13½	@	14
do Armour	18	@	18½
do Worster's	18½	@	19
SEEDS.			
Alfalfa, Chile lb	8½	@	11½
do California	11	@	14
Canary	—	@	20
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¾
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Peruana do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Browu	3	@	3½
Rape	9	@	11
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	75	@	1 00
Orchard do	30	@	35
Red Top do	25	@	30
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy	10	@	13
TALLOW.			
Crude	6½	@	7½
Refined	9	@	9½
WOOL, ETC.			
FALL—			
Seedy	11	@	12½
Choice free	12	@	18
Cnrry	9	@	11
Oregon	—	@	—

S. F. RETAIL MARKET RATES.

Wednesday, M., January 19, 1876.

POULTRY, GAME.			
Chiokens	75	@	1 00
Hens	75	@	1 00
Eggs, Hens	55	@	60
do Ducks'	—	@	60
do Farallones	—	@	—
Turkeys, ₱ lb	20	@	25
Ducks, each	1 00	@	1 25
Geese, wild, pair	50	@	1 00
Tame, ₱ pair	3 00	@	4 00
Snipe, ₱ doz	1 25	@	1 50
do English	—	@	3 00
Quail, per dozen	75	@	2 00
Prairie Ch'k s, pr	—	@	—
Hares, each	25	@	50
Rabbits, each	15	@	20
Squirrels do	—	@	15
Beef, tend, ₱ lb	15	@	18
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	—	@	15
Porter House St'k	—	@	20
Sirloin do	12	@	15
Round do	8	@	10
Pork, rib, etc., lb	12	@	12½
Chops, do, ₱ lb	15	@	—
Veal, ₱ lb	10	@	15
Outlet, do	15	@	25
Mutton-chops, lb	10	@	12
Leg Mutton, lb	8	@	10
Lamb, ₱ lb	20	@	25
Antelope	15	@	20
Tongues, beef	60	@	75
do, do, smoked	75	@	1 00
Tongues, pig, lb	12½	@	—
Bacon, Cal., ₱ lb	16	@	20
Hams, Cal, ₱ lb	16	@	20
FISH, MEATS, ETC.			
Flounder, ₱ lb	15	@	35
Salmon, ₱ lb	25	@	35
Smoked	—	@	8
Rock Cod, ₱ lb	15	@	—
Cod Fish, lb	12	@	15
Perch, lb	15	@	—
Lake Big. Trout	—	@	30
Smelts, ₱ lb	10	@	12½
Herring, Sm'kd	75	@	—
do fresh	—	@	5
Tomcod, ₱ lb	—	@	20
Terrapin, ₱ doz	—	@	—
Mackerel, p'k, ea	12½	@	—
Fresh, do lb	—	@	—
Sea Bass, ₱ lb	—	@	—
Halibut	—	@	75
Sturgeon, ₱ lb	5	@	6
Oysters, ₱ 100	75	@	—
Ohesp, ₱ doz	50	@	75
Clams ₱ 100	—	@	50
Mussels do	—	@	25
Turbot	65	@	75
Crabs ₱ doz	1 00	@	1 25
do Soft Shell	40	@	50
Shrimps	8	@	10
Sardines	—	@	15
Anchovies	—	@	8
Soles	—	@	40
Young Trout, bay	—	@	—
Skate, each	15	@	25
Whitebait, ₱ lb	—	@	15
Crawfish ₱ lb	8	@	10
Green Turtle	—	@	—
FRUITS, VEGETABLES.			
Apples, pr lb	5	@	8
Pears, per lb	5	@	12½
Apricots, lb	—	@	—
Peaches, lb	—	@	25
Plums	—	@	—
Pine Apples, each	50	@	1 00
Lady Apples	—	@	25
Grapes	—	@	25
Bananas, ₱ doz	75	@	1 00
Muskmelons	—	@	—
Watermelons	—	@	—
Blackberries	—	@	—
Cal. Walnuts, lb	—	@	25
Crauber'es, Org., do Eastern qt	—	@	25
Huckleberries	—	@	—
Strawberries, lb	—	@	—
Raspberries, lb	—	@	—
Gooseberries	—	@	—
Currants	—	@	—
Oherries, ₱ lb	—	@	—
Nectarines	—	@	—
Pomegranates	6	@	10
Oranges, ₱ doz	50	@	1 00
Lemons	75	@	—
Limes, per doz	20	@	25
Figs, dried Cal	12½	@	25
Figs, Smyrna, lb	25	@	35
Asparagus, lb	50	@	75
Artichokes, doz	75	@	1 25
do Jerusalem	—	@	8
Beets, ₱ doz	20	@	25
Potatoes, ₱ lb	2	@	3
Potatoes, sweet	3	@	5
Broccoli, each	10	@	15
Cauliflower	10	@	15
Green Peas ₱ lb	—	@	—
Cabbage, per hd	10	@	12½
Oyster Plant, bn	—	@	12½
Carrots, ₱ doz	—	@	25
Celery, ₱ dz	75	@	1 00
Cress, ₱ doz bun	20	@	25
Onions	3	@	4
Turnips, ₱ doz bunches	—	@	25
Brussels Sprouts	6	@	8
Eschalots	—	@	25
Dried Herbs, doz	30	@	50
Garlic ₱ lb	12½	@	—
Green Corn, doz	—	@	—
Lettuce, ₱ doz	25	@	—
Mint, ₱ bunch	—	@	12½
Mushrooms, ₱ lb	—	@	25
Horse radish, ₱ lb	15	@	25
Okra, dried, ₱ lb	—	@	—
Pumpkins, ₱ lb	5	@	6
Parsnips, doz	—	@	25
Parsley	12½	@	—
Pickles, frsh, ₱ lb	—	@	—
Radishes, doz	20	@	25
Sage	—	@	25
Marrowfat, do	2	@	3
Hubbard, do	—	@	—
Mangoes, ₱ doz	—	@	—
Spinage ₱ bskt	—	@	12½
Rhubarb	10	@	12
Green Chilies	—	@	25

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18	@	00
Rough refuse, ₱ M	14	@	00
Rough clear, ₱ M	30	@	00
Rough clear refuse, M	20	@	00
Rustic, ₱ M	32	@	50
Rustic, refuse, ₱ M	24	@	00
Surfaced, ₱ M	30	@	00
Surfaced refuse, ₱ M	20	@	00
Flooring, ₱ M	28	@	00
Flooring, refuse, ₱ M	20	@	00
Beaded flooring, ₱ M	30	@	00
Beaded floor, refuse, M	25	@	00
Half-inch Siding, M	22	@	50
Half-inch siding, ref, M	16	@	00
Half-inch, Surfaced, M	25	@	00
Half-inch Surf. ref., M	18	@	00
Half-inch Battens, M	22	@	50
Pickets, rough, ₱ M	13	@	00
Picketa, rough, p'ntd	16	@	00
Pickets, fancy, p'utd	25	@	00
Shingles, ₱ M	3	@	00

PUGET SOUND PINE—Retail Price.

Rough, ₱ M	22	@	50
Fencing, ₱ M	22	@	50
Flooring and Step, ₱ M	32	@	50
Flooring, narrow, ₱ M	35	@	00
Flooring, 2d quality, M	25	@	00
Laths, ₱ M	3	@	50
Furring, ₱ lineal ft	—	@	—
REDWOOD—Retail.			
Rough, ₱ M	22	@	50
Rough refuse, ₱ M	18	@	00
Rough Pickets, ₱ M	18	@	00
Rough Pickets, p'd, M	20	@	00
Fancy Pickets, ₱ M	30	@	00
Siding, ₱ M	25	@	00
Surfaced and Beaded	37	@	50
Long Flooring	35	@	00
Do do refuse, ₱ M	25	@	00
Half-inch surfaced, M	32	@	50
Rustic, No. 1, ₱ M	40	@	00
Battens, ₱ lineal foot	—	@	¼
Shingles ₱ M	3	@	¼

GENERAL MERCHANDISE.

WHOLESALE.]

Wednesday M., January 19, 1876.

BAGS.			
Eng. Stand Wht	10½	@	11
Nevills & Co's Hand Sewed	10½	@	11
24x36	14	@	11½
24x40	12	@	12½
Machine do 24x40	12	@	12½
" " 23x40	11¼	@	11½
" " 22x40	11	@	11¼
" " 22x36	9½	@	10
Flour Sacks ½s	9½	@	11
" " ¼s	6¼	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	8½	@	9
do 40-in	7½	@	8
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	16
single seam no	—	@	—
Bean Bags	7½	@	8
Barley Bags 24x36	11¾	@	12
do 23x40	11½	@	12
do 24x40	12	@	12½
Oat Bags, 24x40	12	@	12½
do 28x36	—	@	13½
Derrick's "E W"	9½	@	10
do "E"	—	@	9½
CANNED GOODS.			
Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—
COAL—Jobbing.			
Australian, ₱ ton	—	@	9 00
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	—	@	18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Scrantou	13 00	@	16 00
Vancouver's Isl.	10 50	@	13 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ hhl	—	@	60
COFFEE.			
Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in cs	25	@	—
Chicory	27	@	—
FISH.			
Sao, Dry Cod, new	4	@	4½
cases	6	@	6½
do honeless	8½	@	10
Eastern Cod	7½	@	8
Salmon in bbls	8 50	@	9 00
do ½ bbls	4 50	@	5 00
do 2lb cans	2 25	@	2 30
do 1lb caus	1 25	@	1 30
do Col. R. ½lb	5 00	@	5 50
Pick. Cod, hbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bls	9 00	@	11 00
" Extra	—	@	12 00
" in kits	1 90	@	2 00
" Ex mess	3 00	@	3 50
" Ex mess, ½s	—	@	12 00
Pio'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50
HARDWARE.			
Amoskeag handled Axes $16@17; do unhandled do $13@14—less 50c in 5 case lots.			
Amoskeag Hatchets, Shingling, No 1, $7.25; No. 2, $8; No. 3, $8.25. Do do, Claw. No. 1, $7.75; No. 2, 8.50; No. 3, $9.25—less 10 per cent.			
Locks, Yale Lock Mf'g Co., discount 33⅓ per cent. from list.			
Planes, Ohio Tool Co., discount 30 per cent. from list.			
Am. Tack Co's Cut Tacks 72½ per cent. discount and 5 per cent. extra. Finishing and Clout Nails, 50 per cent. off list; 3d fine Nails $7.00 per keg. Ohio Butt Co's Loose Joint Butts 50 per cent. do Fast, 35 per cent off list.			
Machine Bolts, 20@35 off.			
Square Nuts, 2@3c off list.			
Hexagon Nuts 2@3c off list.			
Wrought Iron Washers, 2@3c

Nurserymen.

[Established 1853.]

SEEDLING STOCKS and PLANTS

FOR NURSERYMEN.

Apple Seedlings, fine.....$10.00 per 1000
Pear Seedlings, fine.....$15.00 per 1000
Plum Seedlings, Mirobolan, Best French stock does not Sucker.....$40.00 per 1000
Cherry Mazzard Seedlings.....$12.00 per 1000
Cherry Mahaleb Seedlings.....$15.00 per 1000
Blue Gums in Variety.....$5.00 to $10.00 per 100

Magnolia Grandiflora—all sizes—large stock.

Golden Arborvitæ
Heath-leaved Arborvitæ
Crategus Arboria
Lauristinus
Sweedish and Irish Juniper
Medeterranian Heath
Loquat or Japan Plum
} Fine Plants—Large Stock.

Oranges and Lemons, large stock, best European, Australian, and Chinese varieties, all grafted, from $12.00 to $18.00 per dozen. **Large Palms, Large Tree Ferns, Large Auricarias,** at special prices, with the usual large stock of Fruit and Ornamental Trees.

BERNARD S. FOX,
San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery St., S. F.

1865. 1875.

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	28	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	20	—	Fertille de Palican	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

ROCK'S NURSERIES,

SAN JOSE, CAL.

The attention of Nurserymen and Planters is invited to my large stock of

FRUIT TREES

Of the very best varieties for Market, Shipping and Drying. Also

GRAPEVINES, CURRANTS, GOOSEBERRIES, BLACK BERRIES AND RASPBERRIES. SHADE TREES, EVERGREENS, BLUE GUMS AND SHRUBS. GREEN HOUSE PLANTS, BEDDING PLANTS, ETC.

Send for a Catalogue.

JOHN ROCK, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.

November, 1875.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

W. R. STRONG, Seedsman. Established 1857.

1876.

ROBT. WILLIAMSON, Nurseryman, Established 1865.

W. R. STRONG & CO.

SEEDS. TREES.

San Francisco Office, 418 & 420 Clay Street. Sacramento Office, 8 & 10 J Street.

Nursery Grounds, Sacramento County.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, - - - W. R. Strong & Co.
House in San Francisco, - - - Strong & Williamson.

P. S. Alfalfa, Chile grown, 7 to 11c; California, 11 to 15c, as per quantity and grade Guaranteed fresh and genuine.

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

The Aughinbaugh Blackberry

This new blackberry is a California production, of large size, firm, and excellent flavor. It ripens from May until August. The last of the crop of berries sold readily at 40 cents per pound when the "Early Wilson" brought 20 cents at the same time. Plants are now ready for transplanting and for sale at my residence on Central avenue, west of Webster street, Alameda, and GEO. F. SILVESTER'S, 317 Washington St., San Francisco.

PRICES:

For one doz., by mail, postpaid..... $3 00
Less than one doz., by mail, postpaid, each.... 50
For 100, forwarding expenses paid by purchaser 15 00
For 1000, forwarding expenses paid by purchaser 100 00

Send your address and receive circular containing particulars FREE.

G. AUGHINBAUGH.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Luisante.

Chestnut: Marron de Lyon and Combale.

Walnut: Præparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,
325 Washington street. S. F.

Formerly at 315 Washington street.

FOR SALE—BLUE GUM TREES.

The undersigned has the pleasure of announcing to those contemplating planting largely this season, the nursery stock of the well known Gum Tree Farm, at $15 per thousand, nursery price. The young stock is extensive, ranging in hight from 8 inches to 1½ feet, specially grown for Forest Culture. Address, ISAAC COLLINS, Haywood, Alameda Co., Cal. Nursery situated on Redwood road, 1½ miles from Haywood.

CAMELLIAS.

We offer a large stock of very fine plants at from $33 to $100 per 100. For catalogues of these, as well as of Azaleas, Rhododendrons and Evergreen Trees in great variety, address

R. B. PARSONS & CO.,
Box 99, Flushing, N. Y.

RIVER BANK NURSERY,

San Jose, Cal.

Established - - - 1855.

FRUIT AND ORNAMENTAL TREES in great variety. Choice and Rare Variety of EVERGREENS, SHRUBS, ROSES, BEDDING PLANTS, PALMS, MAGNOLIAS, FERNS, TUBEROSES, GLADIOLAS, Etc., with general collection of Greenhouse Plants, Hanging Baskets, Etc.

Nursery and Greenhouses, corner Berryessa road and 12th street, two blocks from terminus of North Side horse railroad. Address

L. F. SANDERSON,
Nurseryman and Florist, San Jose.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,
P. O. Box, 722. 516 Battery Street.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

1,000 000 Blue Gum Trees

At $10 per 1000 in lots of 10,000, or $15 per 1000 in smaller quantities. Address W. A. T. STRATTON, Pacific Forest Tree Nursery, Petaluma, Cal.

Seedsmen.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,
607 Sansome St., San Francisco.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

ALL ABOUT GARDENING

For Home Use and for Market, in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

---

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

T. O'CONNOR & CO.,

SEED AND PRODUCE Commission House,

IMPORTERS OF

Seeds and Semi-Tropical Trees, Plants and Fruits, Etc.

American Sweet Chestnut, 10,000, 3 to 4 feet high.
American Black Walnut, 1,000.
Kilmarnock Willow, 500.
Weeping Ash, 300.
Twenty varieties of Tree Roses from Trained Wigelia Rose. Althea or Rose of Sharon, three colors. Acacia or Moss Locust. Golden Dwarf Peach, Great Novelty, 1,000. Magnolia Trees, 1,000 from 2 to 3 feet.
Orange Quince, 200.
Rhododendrons.
Six varieties Currants.
Six varieties Raspberry.
Twelve varieties Strawberry.
Downing's Improved Gooseberry.
Forty varieties of Fruit and Ornamental Trees.
All Imported and All Budded Stock.

T. O'CONNOR & CO.,
426 Sansome street, near Clay, S. F.

Are the best the world produces. They are planted by a million people in America, and the result is beautiful Flowers and splendid Vegetables. A Priced Catalogue sent free to all who enclose the postage—a 2 cent stamp

Vick's Floral Guide, Quarterly, 25 cents a year
Vick's Flower and Vegetable Garden, 50 cents; with cloth covers, 65 cents. Address

JAMES VICK, Rochester, N. Y.

FLOWER SEEDS. VEGETABLE SEEDS.

Spooner's Prize Flower Seeds

Spooner's Boston Market Vegetable Seeds.

The cheapest and best seeds in the market. Send two 3 cent stamps for our illustrated catalogue and see the prices.

W. H. SPOONER, Boston, Mass

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

Grapevine Cuttings.

B. Malvasia, Zinfindel, Muscat Alexandria, Berger, Large White Malaga and many others. Price, three to five dollars per thousand.

H. W. CRABB,
Oakville, Napa County, Cal.

THE 100 DAYS TOMATO.

Actually ripens in one hundred days.

Earliest Good Tomato Ever Offered

Free from rot; ships well; remarkably prolific.

$419.50 Sold from One-Fourth Acre.

Positive proof of these claims in Free Circular.

25 cents per packet; 5 for $1.00, post-paid. Address

J. A. FOOTE, Seedsman, 512 Main St., Terre Haute, Ind.

BOWDITCH'S FLOWERS

My Illustrated Floral Catalogue for 1876 is now ready. Price 10 Cents, less than half the cost.

WILLIAM E. BOWDITCH, 645 Warren St., Boston, Mass.

Dewey & Co. { 224 Sansome St } **Patent Agt's.**

Agricultural Articles.

OAKLAND GANG PLOW

Pat. and Manufactured by HENRY N. DALTON.

—AT THE—

PACHECO

Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or he raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON.
Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

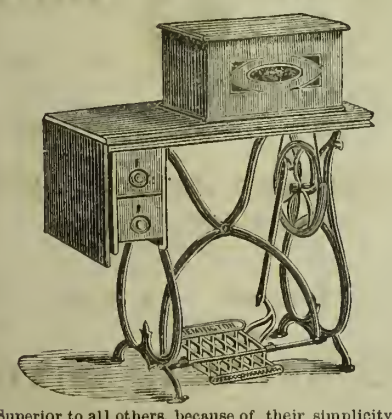
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to he a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 45 Cal. Market S.F

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..$85 00	Extra Shares—No. 1..... $3 00	Landsides for single Plows.. $2 50
No. 2 " " " " .. 90 00	" " No. 2..... 3 50	" " Gang Plows... 1 50

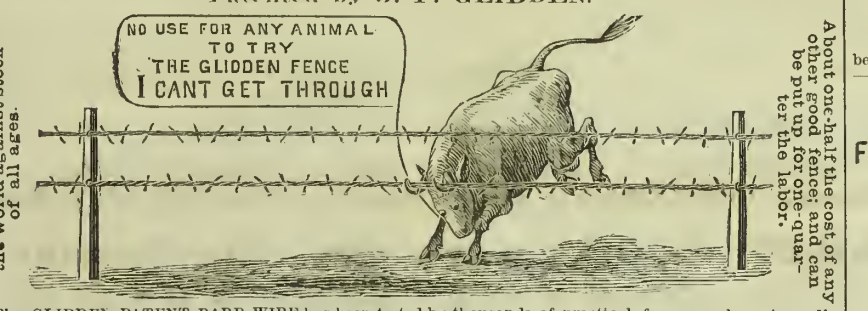
All kinds of casting done on short notice.

San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.



It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will he refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can he put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
General Agents for the Coast. K and 10th Streets, Sacramento.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

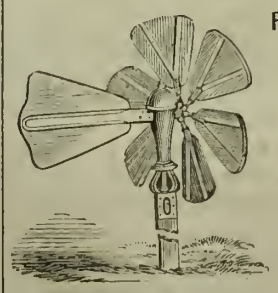
—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
El Dorado, El Dorado Co., Ca

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,
31 Beale Street, San Francisco,
WHERE THE PUMP CAN BE SEEN IN OPERATION.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER.
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of J. M. DUDLEY,
Dixon, Solano County, Cal.

FARMERS write for your paper.

A Card.

Watsonville, Dec. 6, 1875.

To C. P. Hoag, Gen. Agent, 118 Beale street, S. F.,

Dear Sir.—We have had the Eclipse windmills in use several months. They have worked to our entire satisfaction, running in the lightest breeze, and their self-regulating apparatus working to perfection in the severest gales. We take pleasure in recommending the Eclipse to all desiring windmills.

Yours truly,

Otto Stoesser, E. S. Peck, J. M. Rodgers and E. J. Martin.

Reasons why the Eclipse Windmills should be Preferred.

1.—It has been tested eight years in almost every State in the Union.

2.—It is the most simple in principle, strongest in construction and possesses more power than other mills.

3.—It is noiseless in operation, beautiful in design, and well finished. Has no loose joints to get out of order.

4.—Has hardly any friction and will run in light winds. It is a perfect self-regulator.

5.—It is sanctioned and adopted by the leading railroads for their water stations, and pronounced by railroad engineer to be built upon true mechanical principles.

6.—The entire mill is guaranteed, and any casting or portion of a mill breaking from defect in material or workmanship will be replaced free of charge without delay.

7.—The rims are straight, instead of steamed or bent, as in other wheels, and the entire mill is durable.

8.—The cost is less than others when the actual power, durability and safety are considered.

Write me or call.

CHAS. P. HOAG,

General Agent for Pacific Coast, 118 Beale street, between Mission and Howard, San Francisco, Cal.

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Squars and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candies, Candied Fruits, Honey, Maccaroni, Crackers, Sugar, Soap, Boots, Etc,

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

50 **Visiting Cards**, with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

IMPORTANT TO FARMERS
AND LAND OWNERS.

We have constantly on hand from 50,000 to 500,000 Australian Gum trees of different varieties; we also keep on hand from 10,000 to 20,000 fine Avenue trees from 6 to 10 feet high; also, a large stock of Cypress trees, etc.

Our prices range according to the size of the plants, from $10 to $45 per 1,000. We invite the public to call at our San Francisco or Oakland depot and examine our extensive stock. We feel confident we can fill any order entrusted to us with entire satisfaction to all concerned.

The present winter is a very favorable one to plant a forest, and if not prepared to plant on a large scale, every farmer should set out a few acres, and you will find when once planted that you will not take ten times their cost.

Eucalyptus Globulus, or Blue Gum Tree.

Our Australian Blue Gum plants are extra fine and were raised exclusively for forest culture; they are very stout plants, from 12 to 18 inches high, and finely rooted. We are prepared to take contracts to plant from 10 to 1,000 acres.

EVERY FARMER AND LAND OWNER

Should see the importance of raising their own firewood, and timber for other uses. But if not prepared to plant a forest, you will be greatly benefited by planting a tree between each fence post, around all the lands you have fenced in. Thus in four years you will have a permanent fence post and it will add much to the appearance and value of your farm. Thus planted, the cattle will not be apt to destroy them, and if a few are destroyed, they can be replaced at a very small cost.

VALUE OF FORESTS.

The following estimate is based upon the supposition that each tree for firewood in ten years will, on an average, be worth one dollar, saying nothing about its great value for other uses. There is a large number of trees in Oakland that have been set out from ten to twelve years, measuring two feet in diameter, and have four to six dollars' worth of wood in each tree, the trees being from 50 to 60 feet high; samples of these trees can be seen in different parts of Oakland. Suppose a contract be let to plant one hundred acres, at a distance of eight feet apart, at eight cents per tree; this includes furnishing the trees, preparing the soil and planting:

Cost of trees planted	$5,440
Ten years' interest on cost of trees planted, at ten per cent	5,440
Cultivating the land two years	400
Total	$11,280

From $68,000, the value of the trees, deduct the $11,280 cost and interest, which leaves a net profit of $56 720 on the 100 acres of timber. Suppose the average growth of each tree to be ten cents worth of wood per year, the growth of wood on 100 acres will be $6,800 per year, and on 1,000 acres will be $68,000 per year on the growth of the timber.

A Pamphlet will be sent free to any address, giving valuable information on Forest Culture.

General Depot, 110 East Twelfth Street, near Tubbs' Hotel, Oakland, Cal.
Branch Depot, Market Street, opposite New City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

Address, **BAILEY & CO., Lock Box 80, Oakland, Cal.**

Parties remitting to us for Trees, can depend on having as good an article as though they made the selection themselves

---

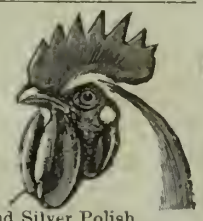
I have founded my business on the belief that the public are anxious to get their seed directly from the grower, and I therefore offer FREE to every man and woman in the United States who cultivates a farm, tills a vegetable garden, or plants a flower garden, my large Illustrated Catalogue of Vegetable and Flower Seeds for 1876; it contains, in addition to the choicest kinds produced in Europe, one hundred and fifty varieties of vegetable seed grown on my four seed farms. Customers of last season need not write for it. As the original introducer of the Hubbard, Marblehead and Butman Squashes, Phinney's Melon, the Marblehead Cabbages, and a score of other new vegetables, I solicit your patronage. All seed sold under three warrants. A hundred thousand catalogues will be issued and sent out the first of January.

JAS. J. H. GREGORY, Marblehead, Mass.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.



Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns.
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS COMPANY, 609 Sacramento St., S. F.

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

THE Twentieth Edition of our celebrated **Seed Catalogue and Amateur's Guide to the Flower and Kitchen Garden**, containing upwards of 200 pages, including several hundred finely executed engravings of favorite flowers and vegetables, **and a beautiful colored chromo**, with a Supplement for 1876, will be mailed to all applicants upon receipt of 35 cents. An edition elegantly bound in cloth, $1

BLISS' ILLUSTRATED GARDENERS' ALMANAC

For 1876, and **Abridged Catalogue of Garden and Flower Seeds**, contains upwards of 100 pages, and embraces a monthly Calendar of Operations and a price list of all the leading **Garden, Field and Flower Seeds**, with directions for their culture. A copy will be mailed to all applicants inclosing ten cents. Address

B. K. BLISS & SONS, 34 Barclay St.,
P. O. Box 5712, **New York**

Our Combined WHOLESALE List of
EVERYTHING
FOR THE
GARDEN!
(Seeds, Plants, Florists' Requisites, etc.)
For the TRADE ONLY, mailed free on application.

Peter Henderson & Co.
35 Cortlandt Street,
NEW YORK.

BLUE GUM TREES.

400,000 For Sale. Price from $10 to $45 per 1,000. Also a fine stock of Ornamental Trees, Etc.

Main Depot, 118 East 12th street, Oakland. Branch Depot, Market street, opposite new City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

BAILEY & CO.,
Box 80, Oakland, Cal.

NEW CROP OF
BLUE GUM SEED.

GRASS AND CLOVER **SEEDS.**
FLOWER AND VEGETABLE **SEEDS.**
TREE AND FRUIT **SEEDS.**

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,
No. 317 Washington Street,
v8:tf **SAN FRANCISCO.**

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

ROSES 700 SUPERB VARIETIES **ROSES.** Half a Million Greenhouse Plants. Mailing Plants a Specialty. Illustrated Catalogue Free. **E. Y. TEAS & CO.** Richmond Ind.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED **POULTRY.**
EMDEN GEESE, Pekin Ducks.
PIGEONS. RABBITS. FERRETS.

BRONZE TURKEYS.
PRICE-LIST For 1876 Now Ready.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address **M. EYRE, Napa, Cal.**
Please enclose stamp.

FOR SALE
—BY THE—
COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord J. REGENSBURGER.....S. F.
J. VOLLMAR.....S. F. A. W. THOMPSON, Petaluma
J. D. BLANCHAR.....Napa F. A. KIMBALL....San Diego
C. MITCHELL GRANT.....I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street, S. F.

CAMELLIAS. A large stock of very fine plants at rates from $3 to $100 per 100 according size and kinds. Also

Rhododendrons, Azaleas and Roses.

PURPLE BEECH and other RARE and ORNAMENTAL TREES.

ROSES and the Best FLOWERING SHRUBS.

CLEMATIS OF MANY NEW AND FINE SORTS.

Catalogues Free. Address

R. B. PARSONS & CO.,
[Box 99.] **Flushing, New York.**

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, JANUARY 29, 1876. [Number 5

The New Grange Headquarters.

We herewith present a view of the premises recently purchased by the Grangers' Bank, the Grangers' Business Association and the Cal. Farmers' Insurance Co. The building, as will be seen by the illustration, is a substantial one, and one of considerable architectural pretensions. It is of brick, three stories high, with a basement sixty-eight by forty-five feet in ground area, and located on the northeast corner of California and Davis streets as central and convenient a location for the purposes for which it is intended as can well be found in the city. The purchase includes, in addition to the building, a lot twenty-two feet eleven inches by ninety feet deep, fronting on Davis street and immediately adjoining the building on the extreme left, as shown. Workmen are now engaged in putting up a two-story brick building on this lot for the accommodation of the Grangers' Business Association, which will require more room for its business than can be spared in the main building. This structure will be connected with the main building by a large archway, which has already been cut in the north wall.

The building is now in process of thorough renovation from basement to roof, and will be put in complete order for the various departments of business which will be centered there. Six iron blind-doors, which formerly disfigured and gave to the structure a prison-like aspect, have been removed, and large plate-glass windows been substituted. A large brick and iron vault, burglar and fire-proof, has been constructed in the center of the lower floor, divided into three compartments, each with its separate opening into the three different business departments which will occupy that floor. The second and third stories have their entrance in the center of the California street front, as shown, which, as well as the stairways and halls, is large, roomy and well lighted. The second and third stories have both been put in perfect order and painted throughout.

The banking room is being fitted up in a manner appropriate for such a business, with suitable rooms for the directors, etc. The counters are large and convenient, and will be finished in imitation of black walnut. The entrance is as shown, on the corner, and is approached by openings from both streets. An examination of the illustration, with the signs as shown thereon, will exhibit at a glance the location of the several departments. The bank, as already noticed, will occupy the corner room: the California Farmers' Mutual Insurance Association the room fronting on California street, and the Grangers' Business Association that fronting on Davis street, and including, also, the new two story wooden building adjoining and now in course of construction. The Secretary of the State Grange is already in occupancy of the front corner room on the 3d floor. The Country Real Estate Associates will occupy the room on the same floor fronting Davis street.

The other occupants of the building are Albert Dibble, shipping merchant, and J. W. Grace & Co., shipping and commission merchants, and the Atlantic Giant Powder company. Every room in the building is full, the basement being occupied by F. W. Kamps as a restaurant, where our friends from the interior can secure a good square meal should they become hungry while transacting business with the powers above.

The bank will take up its new quarters on Monday next. The insurance company will also be removed early in the week. It is possible there may be a little delay about the removal of the Business Association from its present quarters on Market street. Our readers will be advised in regard to that matter in our next issue.

Extended notices of the bank and insurance company will be found in the Grange Department, on another page. A notice of the Business Agency, its progress and prospects, will be given in a future issue; also, some account of the object and plans of the Real Estate Agency. The building will hereafter be known as the Grangers' building.

GRANGERS' BUILDING, COR. CALIFORNIA AND DAVIS STREETS, S. F.

THE BRUCKNER FURNACE.—We learn that the Blue Jacket mine has just started two of Bruckner's revolving roasting cylinders, and obtain an average of over 90 per cent. of the assayed value of the ore. Two others are now being erected at Phillipsburg, Montana, and will soon be in operation. The present indication seems to be that the Bruckner roasting cylinder will come into general use. Information concerning these cylinders can be had by addressing Lane & Bodley, Cincinnati, O.

THE Russian Imperial Academy of Science has elected as corresponding members Prof. Newcomb, of the Naval Observatory at Washington, Prof. Gould, of the Argentine Republic and Prof. Whitney, of New Haven.

RECENTLY a number of Chinamen have established themselves as draymen and drivers of express wagons in this city. They do business for their countrymen only.

The "Rural Press" as a Means of Advancement.

We hold it our sphere to lead in the advancement of agricultural interests on this coast. We can do this, not by any special quality of leadership of our own, but because we minister to that spirit of agricultural advancement which is potent to accomplish its own high ende through our agency. Our columns are the mirror which catches light from every improvement of agricultural science and practice, and throws it into every rural home. As this is our work, it is the duty of every reader to give us the light that in him is, and thus we can return to *each* one the light which *all* gain by intelligent endeavor and success.

Our readers have aided us nobly in the past in this useful work. We ask them to do even more in the future. Let every reader in the field of his special work consider himself a contributor to the RURAL PRESS, and withhold not his part toward the progress of his industry. We are glad to see that our efforts in this true policy of progress are perceived and appreciated by our readers. We receive evidence of it every day. The following letter tells the story clearly, and we trust many will take the cue from it:

MESSRS EDITORS:—I am a faithful reader of our valuable paper, and derive much information from perusing the hints and suggestions thrown out by its many correspondents. The more I read and study the paper, the more thoroughly I become convinced of its real worth and value. There is probably no better method known by which to disseminate a thorough knowledge of the various branches of industry to the husbandman, than by the representatives, each in his vocation, to give utterance to facts gained by honorable toil, through the columns of the PRESS. Holding such views, I have endeavored to contribute to that duty which one owes to another by the within inclosed communication, which if found readable and worthy a place in your columns, please place to the credit of a representative of the Horticultural Department, and accept the thanks of one of your faithful advocates. L. D. CHILLSON.

San Buenaventura, Cal., Jan. 17th, 1876.

E. D. WINSLOW, the well-known journalist and politician, and known as one of the principal owners of the *Daily News* and Boston *Post*, has absconded from Boston after committing various forgeries.

THE funeral of Hon. Benjamin P. Avery, ate U. S. Minister to China, and an old Californian, took place on Wednesday with military honors.

PRINCE BISMARCK is reported to be quite ill.

CORRESPONDENCE.

English Agricultural Progress.

MESSRS. EDITORS:—We have now entered upon the third quarter of the 19th century, and may therefore be excused for wondering how far we have trsveled on the road to perfection iu sgricultural prsctice and science. The century—like those smong us who have seen 75 summers—is getting old, and the present time seems admirsbly suited for looking back at what many esll "the good old times," but to which I, for one, should be sorry to hsve to return, and also do our best to lift the veil—if only psrtially—from the unknown future; and this has been doue so admirably by a writer—well known by all sgriculturists—in the *Agricultural Gazette* of to-dsy, thst I send you his remarks:

"It is noteworthy," says this writer, "in the history of English agricultural improvements, thst the first efforts were made in the direction of introducing new plants, such as potatoes, clovers snd turnips; snd also in improving the methods of their cultivation. This good work wss extended from the time of good Queen Bess, when Rsleigh imported the potato, to the yesr 1764, when Mr. Dawson, of Fugden, introduced turnip husbandry into Roxburgshire. From this period we msy dste the second grest chapter of progress, which contsins the history of live stock improvements, from Bakewell snd the Collings down to Fisher Hobbs and the Druces. A third period of advancement dates from the publication of Liebig's *Agricultural Chemistry* in 1842. The most palpsble objects hsd been already attained in the shape of first-rate crops and first-rate stock. Further progress seemed to be almost hopeless when Liebig showed the world the intimate connection between chemists and agriculture.

"During the last 40 years but little hss been done in the introduction of new plsnts or the development of new breeds; but it is during this period that chemistry, mechanics, geology, snd several other branches of science have illumined the path of our agricultural pioneers. The value of science to practice has been long recognized by the enlightened, although it is still doubted by many. These latter ask—wherein sre we enlightened? but we cannot pause to answer the question in detail. It is a question which, we are glsd to say, is not asked by those who are in the van of improvement; and although the precise application of botany, geology, or even chemistry, to agriculture cannot in every csse be clearly pointed out, we have good reason, from past experience, to hail the labors of their professors as of incalculable vslue. No doubt these labors have resulted in improved methods, both of cultivation and manuring land; in a more complete knowledge of the manufscture of mest; in a better knowledge of the conditions of health in store and fattening snimals; in the substitution of mechanical contrivances for hand and horse labor.

"In this recent movement we have witnessed the effect of nnion as exemplified in the Royal Agricultural and other societies. These societies have assisted to spresd abroad knowledge, and to improve the live stock of the country. The fsimers' clubs and chambers of agricnlture have also given the agricultural community what it long wanted—a voice. We have msrked three distinct epochs of progress, bringing us down to the present day."

What are We to See Next?

The snswer to this is, thst we shall see an improvement in the condition of the laborer and the tenant farmer; and this is to be brought about by all farming operstions being carried out upon the commercial principle. The paternal system—whether between lsndlord and tensnt or between tenant snd laborer—must be abolished. The landlord must receive a fair value for his land, and the tenant must have perfect freedom in cultivating it. The laborers must receive a "fair day's wages for a fsir dsy's work," and then—except in those civilities and courtesies which ought to exist between all who have business relations together—esch one is his own master. Agriculture must be trested upon bnsiness principles for the future; and this will, I believe, be the fourth decade of sgricultural progress.

The Dairy Interest.

But there is one department of agriculture in which your readers are interested that will, I think, in the very near future, make rapid strides. I allude to the dairy interest. I believe that the factory system will make rapid progress during the next few years. At present we have only about twenty fsctories, but I think that number will be doubled in abont two years' time. I also believe that the coming year will see the foundation laid for a really nstional dairymen's association for Great Britain, or at lesst for England. I hope this will be the case, for our dairying is, in nine cases out of ten, carried on in a very unscientific manner. This will be remedied, I believe, here as it has been in America, by the action of a good dairymen's association. I firmly believe that rapid strides will shortly be made towards the perfection of scientific dairying in this country.

I must wish your readors a happy and successful new yesr; and also, express the hope that prosperity will attend American agriculturists and dsirymen during the whole of the last quarter of the nineteeth century.

London, England, Jan. 3d. H. F. M.

A Disease Most Common in California.

M. EYRE:—Having seen in the RURAL PRESS articles on disesses in poultry, hut nothing answering to the disesse among my hens, I take the liberty to write you. Some of my hens hsve large lumps on one side of the head; they do not die, but remsin ailing; others seem to hsve something in the throat. They stand around and do not eat well, and after a time die. Small chicks drop snd die in something the same way, or did during last summer and fall.

MRS. L. G. FRIES.

Bakersfield, Cal., Jan. 11th.

The above is of the ssme tenor as many other letters received. In the PRESS for December 20th, 1874, appesrs an srticle giving a remedy for colds, etc., snd the causes which lead to these diseases. The lump on the side of head msy be opened with a sharp knife, the contents, whether a hsrd or cheesy mass, or of a semi-fluid consistency, removed, and the inside of the cavity wsshed out with a lotion of one part of Labbarrsqne's solution mixed with three of water. In all csses of colds, roups, wheezing, etc., it is good to wash the throst and head with such a solution, to esch ounce of which two or three drops of csrbolic acid may be added. A simple and cheap mode of making Labbarrsque's solution is given under the heading, "A Valuable Remedy," in the PRESS of Msy 8th, 1875.

As to the young chicks, their death was cansed by a cold or lice. The remedies are given in the PRESS of April 24th, 1875, under the heading, "Ulcer in Throat—Treatment of Chicks."

M. EYRE, JR.

Plowing Match.

MESSRS. EDITORS:—On the 9th and 10th of February there is to be a grand plowing match at Rio Vists, in which all gang plow msnufscturers, and those hsving gsng plows for sale, are respectfully requested to psrticipste, and hsve represented their make of gang plow. The test will be in this sticky or adhesive adobe soil, of which these hills are chiefly composed, and which is so very difficult of satisfactorily plowing. A land or side brake, to keep the plow up to its work, while plowing round these steep hills, is highly requisite, in fact, almost indispensable. The lsnd brake is a great invention, and originated, I helieve, on Dr. Toland's rsnch.

The judges will award, as first prize, to the plow doing the best work, "Champion gang plow of the Montezuma hills," with fifty dollars in addition; second prize, twenty-five dollars.

Please give this a place in your journal, and oblige,

J. H. GARDINER,
A. B. ALSIP,
E. C. DOZIER,
Com. of Arrangements.

Rio Vists, Cal., Jan. 19th.

HORTICULTURE.

Orchard Culture.

MESSRS. EDITORS:—As this section of country is now attracting some attention from the outside world, and is likely to soon become thickly settled with a thorough go-shead people, who intend to fully develop the resources snd capabilities of our soil snd climate, perhaps a few items purchased at the expense of diligent experience snd close observation, will be found available in certain branches of industry, to aid in transforming the untutored wilds of this fair land to the higher grades of prosperity.

It hss already been demonstrated that all of the semi-tropical, and many of the purely tropical fruits and floral plants grow and luxuriste in close proximity with those of the temperate clime, and when properly treatod seem to vie with esch other for the ascendency.

It is a noteworthy fact, however, that esch class has its particular season; each class has its special method of treatment; esch class hss its season of life; esch class has its time of rest; and upon the knowledge, or the ignorance of these facts depends the success or the failure of him who would engage in one of the most pleasant, as well as one of the most remunerative branches of industry within our Stste.

Having an orchard consisting of some thousands of trees, (from which I seek to obtain a livelihood,) and containing fruits from nearly every clime, and having grounds containing ornsmental shrubbery in much variety, in the common phrase, "thousands" of times I sm asked the question, what kind of fruits produce best in this climate, what kinds of shrubbery attain the greatest state of perfection, when is the best season to transplant, when is the proper time to prune, etc. To answer properly all questions that might be asked upon this subject would require too much time, and would encroach too largely upon the space of your valuable paper.

To answer in part, however, snd that which is of the greatest import, the selection of varieties best adapted to soil and locstion, when to transplant, and when to prune, should predominate.

Choosing Fruits.

In selecting for an orchard, uone shonld be chosen except such varieties as have already been proven to produce in healthy qnantity, excepting by those who wish to experiment. The kinds of fruit which have already been brought to the producing test, and considered standard, may be enumerated as follows: apple. pesr, apricot, nectarine, in variety; plum and prune, limited; quince, fig, almond, olive, pomegranate, Italian chestnut, English walnut, loquat, guava, peach, (budded here), lemon, grape, blackberry, and strawberry, in the highest state of perfection. Orange, lime. citron, banana, date, and pine-apple, in the prospective, although the plants thrive well.

Transplanting.

Next for our considerstion should be the proper season for transplanting. Hundreds—perhsps thousands—of fine trees died in Ventura county in 1875, and slmost the entire cause ean be attributed to the season of transplanting, many having been set in March, snd some as late as April.

We were riding with a neighbor a few dsys since, when he remarked: How is this; you do not seem to lose any trees, while I hsve lost more than two-thirds of the trees I set last winter, which was about fifteen hundrod.

In true Yankee style, we responded by asking: Why did yon not plant your trees in November or December, as was suggested to you lsst fall? Why, said he, I wrote to a Mr. ———, who is an old orchardist, and he told me I must not move a tree or cut a limb until Fehrusry or March; and as they used to do the same "back in the States," I thought it must be right. Now, that may all work very nicely in some parts of tho world, but it will not do here; and I see no good resson "why a man whose blood is warm within shouid sit like his grandsire, cut in alabaster."

I, too, set my first orchsrd in February and March, 1868, and my trees did remarkably well. That, however, was an extremely wet winter. The same rule was followed in the two succeeding years, and the result was, those trees have scarcely commenced growing at the present date. Since then, the months of November and December have been choosen ss the most suitable season for transplanting certain vsrieties or kinds of fruit; and when the growing season commences in the following spring, one csnnot go through the orchard and distinguish- by growth—the trees last planted. This clearly demonstrates to the observer of nature's laws, that late autumn or early winter is the proper season in this climate for transplanting trees ustive of a temperate and northern latiiude.

In regard to fruits of a more tropical nature, the direct opposite iu trestment to the above has been found most compatible to success. The orange, tho lemon, lime and citron may be transplanted in the months of May and June with perfect impunity and almost absolute succoss; while if moved in the autumn or winter months, a stunted growth, a gnarly shrub' or dead stalk will almost invariably reward the experiment.

Pruning.

The sesson for pruning is the next most importsnt item for the success of the horticulturist. If a man would have his trees prodnce fruit, he must prune as well as transplant in the proper season. Where a soil and climate is susceptible of producing fr its of every clime; where within tho ssme inclosure fruits native of France, Italy, Spain, Sicily, Australia, the East Indies, Asia, Germany, Japan, Assyria, China snd the Hawaiian islsnds may be found growing side by side with those of the northern and southern hemispheres, and luxuriating in all the native g andeur; such a combination of vegetable wonders would imply, man should not go in with his saw and pruning shears and cut snd slash to the right and lett, everything that comes in his way, merely because he hss a spare day or has nothing to do. Esch of these varieties have their season to bud, to fruit and to shed; aud must be trested accordingly if man would have his labors crowned with success. The most inexperienced would not attempt to prune an apple tree or a peach tree while laden with fruit; knowing full well that such treatment would be suicidal in the extreme. Yet, should he wait the proper season for those varieties, and then proceed to prune the whole orchard, some of the varieties would inevitably suffer the sad results.

Pruning in Order.

Commencing with the lstter part of the year, the almond comes first, and may be most successfully pruned in the month of November. The peach, grape, and English walnut in December; the apple, apricot and pear in January, aud the orange. lemon, lime and citron should be pruned in March and April. Another very important item in regard to advancing the growth of a young orchard, is to regularly succor or sprout the trees, that is, once a month a man should go through his orchard and cut off every surplus sprout or shoot germinating from the root or body of the tree, thereby forcing the entire growth into the main trunk or body of the tree, where it is most needed.

Care Must be Given.

I notice in your last issne—in the communication of Felix Gillet—that when an orchard is once planted nothing is to be done, except wait until the trees commence fruiting, then gather the crop and place the proceeds in your pocket.

Attempts have been msde at growing orchards upon that principal in this portion of the State, and with what success the dead trees piled up in hedge fence row, in certain localities, will testify. An old adage says, "that which is not worth doing well is not worth doing;" and I helieve that principle will apply as foreibly in rearing an orchard ss any branch of industry in which I have ever been engaged. [As we understood Mr. Gillet his remarks were concerning forest trees.—EDS.]

In the florsl and ornamentsl depsrtment there is decidedly more importance in the method of treatment, with most varieties, than there is in the season of transplanting.

In hsndling the eucslyptus, the pine, the cypress, the acacia, the Chile pepper, the India rubber and, in fact, nearly all of our evergreens, and msny varieties of our flowering shrubbery, cannot he transplanted without removing a sufficient quantity of earth with each plant, to retain the roots in their natural position. Hence, it makes but little difference in what season of the year the labor is performed, provided a supply of water is at command, otherwise the rainy seasou must be brought into requisition.

Many more items of interest and useful information might be suggested upon the subject of fruit growing in the semi-tropics, but I fear I have already transgressed upon your valuable space.

L. D. CHILLON.

Ventura Avenue, San Buenaventura, Cal.

[We shall be pleased to hear from our correspondent upon the other matters he mentions.—EDS. PRESS.]

Cherry Culture—No. 1.

MESSRS. EDITORS:—Why is it that in all the agricultural and horticultural papers, both East and here, we do not see cherries mentioned as a paying crop, or the experience of old cherry growers communicated to others through the papers? Is it because the fruit is so small and the tree so short lived, as some people think it is, that it is not considered worth writing about? I have devoted about thirty-five years of my life almost exclusively to cherry culture, and have my father's experience before me; he was an extensive fruit grower and nurseryman for forty years.

Notwithstanding all these sdvsntages I must confess that I am a good deal like the little boy that went to mill. The miller ssked him what he knew. He replied that there were some things he knew and some things he did not know. The miller asked him what he knew. He replied that he knew the miller had a great many fat hogs. The miller asked him what he did not know. He replied that he did not know whose corn he fattened them on. So it is with me in regard to cherry culture. For there are some things I do know, and there are some things I do not know. I can learn something every year working among my cherry trees. It takes about one year to learn anything in horticulture, because you must wait to see what effect your operstion will have on the trees. I have made the cherry a specialty all my life—fifteen years in this State—and in these snd the following remarks I may say something that everybody will not believe, but no matter; we live in a free country, and facts are stubborn things, and figures will not lie if they are made right.

Reform in this as well as in other things, is the watchword. Get out of the old ruts and fogyisms; keep up with the times. Because my father covered corn with the hoe, fifty years sgo, is no reason I should, ss long ss I can get such good seed drills in San Francisco. I have kept and carefully prepared a diary of all my experience, successes and failures. When I was successful in any operation, I carefully noted that in my diary, and then tried another, and I kept crawling along; and now I am not afraid to stand alone, or, in other words, I am not afraid of making mistakes. And first it is necessary that we should understand the fundamental principles upon which the growth and longevity of the tree depends.

The Soil

Shonld be of a light sandy loam; if there is a little gravel in it, it will not do any hurt. Underlying this loam should be a dry subsoil mixed with sand. It should be of snch consistency that when a small piece is dried in the sun, you can pulverize it in your hand. This subsoil should be about two feet below the surface. The roots penetrate this very easily, snd when the surface is properly cultivated it seldom gets dry and hard. Plow as deep as four good horses can pull the plow; grade and level for irrigation if needed. There are other soils of a heavier nature, where cherry trees will grow and flourish for a few years, bnt not with that vigorous growth and healthful look they possess in the soil where they are at home. Such a soil as I have described is well adapted to all the pitted fruits, especially the cherry; but the apple and pear like to grow in heavier soils.

Climatic Influences.

There are very few locations up and down

the coast, where cherry trees will do well, especially where they face the ocean winds. There are some nooks and corners where they will grow after a fashion, but will not last long. They will flonrish and grow with great rapidity in almost all the inland valleys of the State, where the surface water is not nearer than ten or fifteen feet from the roots. But in cold regions they do not thrive so well; they do not make that healthy, stocky growth, and bear such fine large fruit as in a warmer climate.

* * *

Cherry Vale, San Jose, Cal., Jan. 16th, 1876.

[We trust onr correspondent will follow with other teachings of his experience in cherry culture.—EDS. PRESS.]

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Cheap Poultry Houses.

To keep fowls, in California, free from disease, it is in my experience almost indispensable to have them roost in small flocks in separate honses. I have found no difficulty as to large numbers if too many bo not crowded iuto one house. My plan is to build small, cheap houses—either 7x9 or 8x10 feet—the former if it be proposed to move them often; I make them four feet high to the eaves; the roof is of boards seven feet long (six feet in the 7x9 houses) running one foot over the eaves—a small sliding door about one foot square in one end, a door two feet wide and five or six feet high in tho other; I cover all cracks in roof and elsewhere with 1x3 stuff, which is cheaper than one-half inch battening. There is no chance for drafts, the most prolific source of disease. I cut a hole one foot square near the apex of the roof in each end of the house, which gives ventilation. The lumber costs here in Napa $6 for each house, as I use old pieces or posts for the corners and middle pieces, to which to nail the boards. To move such a house place under it two pieces or scantling nailed firmly to a cross piece at each end, and hitch a team to one of these cross pieces. I allow twenty to twenty-five fowls to each house. A farmer who keeps one hnndred hens should have four (five would be better) of such houses in different places, around the barnyard if he wish, the farther apart the better; with two cocks and twenty to twenty-five hens to each honse. The fowls may rnn together in daytime; each will find its own house at night. I dot the houses over my fields; my hens are removed by a thirty-acre lot from my cocks, except those in my breeding pens, and cock and hens never see each other till mated, about fifty to one hundred yards apart; and when it is necessary to apportion twenty hens to a house, I fix a yard to it and pen them in for two days and three nights, then remove the yard and they never fail, with a few exceptions, to find their proper house at night. These yards are made of moveable fence. Such fence is eight feet high, made of laths nailed on a frame constructed of three pieces 1x3 inch, nailed on standards six feet high, also 1x3, the first piece at bottom, the second three feet ten inches above, the third at top. Roosts should be one foot high for Asiatics, two feet for smaller breeds. The difference in the yield of alfalfa from an eighth of an acre manured with the droppings collected from one such house during the year, will pay for the feed of the fowls. The increase in yield of beets from land so manured will do the same, and reckoning the increased richness of such land in subsequent years, if any farmer will give two acres of ground to grain, etc., for his fowls, manure it with their droppings, build eight or ten such houses and keep 200 hens, he can feed them entirely from such two acres and pocket at least from $400 to $500 clear money at the end of the year. That is an inside limit. Any good breed should yield from $3 to $5 to each hen yearly—(Leghorns will do it in eggs alone)—if properly cared for, but, if treated as the generality of farmers treat their fowls, they will pay little or nothing.

The houses should be whitewashed twice a year; cleaned ont once a month at least (about twelve hours' labor in a whole year for four houses), and the roosts painted with kerosene oil, or coal or gas tar. Twice a year I shut the fowls in the house in the morning and dust each one with my carbolic powder. An yeast powder box half full suffices for twenty to twenty-five. Punch holes in the top of the can and "pepper" it in among the feathers. This keeps them almost entirely free of lice; and in our State lice, of which there are four distinct varieties infesting fowls, are one of the most prolific causes of disease. M. EYRE, JR.

Experience With Fowls.

MESSRS. EDITORS:—I am pleased to notice in your most valuable paper the increased attention that is being given to that pleasing and profitable home industry, poultry rearing and management. Improved fancy or blooded fowls are beginning to attract the attention of the many, and to-day a better class of fowls is demanded in onr markets than in years gone by. Still we are not np to the real idea so necessary to encourage the poulterer to send fat, heavy birds to market. I would most heartily endorse the statement of M. Eyre in RURAL PRESS of Jan. 8th by giving an item or two—I have no big story to tell. We keep about 100 fowls and the nnmber of eggs for December was 40 dozen, which brought us at the end of the month in your market $25. We have a pullet, half buff and half brahma, that has laid 48 eggs in 52 days, and worth at least in market now $2. We hatch chickens every month in the year for broilers. We have hens that have raised 18 chickens to the brood this winter, worth at this date $7 per dozen.

R. H. BARKWAY.

Denverton, Jan. 13th, 1876.

Pekin Ducks.

In describing the first importation of these ducks the *Poultry World* says: "The ducks were with some white China geese. They were full as large as the geese. They commenced laying about two weeks after their arrival. One of the ducks laid one hundred and thirty-three eggs the first season, two hundred and one the second season. In April, 1875, Mr. Palmer imported by the ship *Mary Whitridge*, Captain Cutler, four drakes and six ducks. They laid all the voyage home; after they arrived they laid about one hundred and twenty eggs, from which Mr. Palmer raised a fine flock of ducks, samples of which are in the editor's possession, and are truly magnificent. One of the ducks weighed, when she commenced laying, eight pounds and nine ounces. The largest drake, ten pounds and two ounces." The third importation into the United States was made by M. Eyre, Napa, Cal., and was noticed in the PRESS. If they prove even one-half as prolific layers as claimed, they will stand far ahead of every other duck in every desirable quality.

Setting Eggs.

The bes season in California to hatch chicks is early in the spring. With a little attention to proper precautions, success is easily attained. The hen should be set where no other fowl can disturb her, in a separate house or yard, and supplied with fresh water and grain. Before placing the eggs under her she should be dusted with carbolic powder, and four days before the eggs hatch the dusting may be repeated. It is impossible for lice to remain on her under such treatment. Placing tobacco in the nest and dusting her with sulphur will suffice in many cases; but there is a large head louse which survives such treatment, and sulphur blinds the chicks. Let the hen remain upon her nest, shutting her in after the first chick is hatched, until the last one is twenty-four hours old. The subsequent treatment of the young will form the subject of an early article in the PRESS. M. EYRE, JR.

SHARPENING EDGE TOOLS.—The grindstone should not be less than two feet or eighteen inches in diameter. It should revolve to meet the tool (except when grinding very fine or delicate tools). In grinding a chisel for instance, it should be held firmly on the stone without moving, until a slight wire edge is felt on the other side, which may easily be told by passing the thumb over the opposite side to that which is being ground. When this is felt, turn the chisel over and proceed in the same manner until the wire edge is transferred to the opposite side. It should now be whetted on an oilstone, taking care not to hold the tool too upright, or it will do more harm than good. It should be whetted first on one side, then on the other until the wire edge appears off; now take a piece of deal, free from grit, and draw the edge of the tool across the grain; if it has been properly whetted the wire edge will now be properly removed. Gouges are only ground on their convex surfaces. They should be ground until a wire edge can be felt by passing the finger along the inside of the gouge. This can be removed with the oilstone and deal. While grinding gouges they should be constantly turned from right to left, or the edge will be full of notches. Tools for soft wood should have a long bevel edge to make them cut keen. About a half-inch bevel is best. —*Am. Cabinet Maker.*

A "DOZEN" IN THE POTTERY TRADE.—As the derivation from the French *douzaine* implies, it is generally presumed that a dozen implies twelve things, bnt in the Staffordshire potteries and in the earthenware trade (queensware in Philadelphia, crockery in other places) a dozen to this day represents that number of any special article which can be offered at a fixed price. That is, the price is fixed and tho number to the dozen varies. For instance, the pitchers, which are called "jugs" in the trade, are sold as 2, 3, 4, 6, 9, 12, 18, 24, 30, 36 pieces to each dozon, the price for a dozen being constant. The ordinary pitcher, holding a qnart, is a twelve, or twelve to the dozen, while a pint pitcher is twenty-four to the dozen, and is so called when dealing in that size. Few of the articles of the trade are sold in dozens of twelve, plates boing almost the only ones, and some of them are sold at sixty to the dozen. Besides theso curiosities in figures, the potters have peculiar names—muffins, twiflers, etc.—that make up a trade language of themselves. The quantities for dozens are, we think, yet preserved in the wholesale, or package trade.

SHEEP AND WOOL.

Facts About Angoras.

MESSRS EDITORS:—Being in constant receipt of letters of inquiry from all parts of the coast in regard to Angora goat breeding, I would be pleased to have the use of the columns of the PRESS to give publicity to some facts in connection with the business, which I think will prove interesting and useful to many of your readers. The Gilmore Angora goat breeding association was incorporated the 10th of April, 1875. To illustrate the progress we have made in advancing the interest, a brief statement of its workings will best answer. At the time of incorporating the flock numbered a little more than 1,000 head; it now numbers 2,000, which will increase by the first of May from addition of kids to 3,000; 180 to 190 will be pure bloods. The first of June last I drove them to our high mountain range near Lake Tahoe, where they remained till the first of November, when they were started down to their winter range at this place, camping here and there, and occupying six weeks' time on the journey, arriving the first of December, in fine condition. There were not a dozen goats in the entire band that would not have made excellent mutton.

Winter Shearing.

Having prior to this sheared three or four goats in winter by way of experiment, and found it to work well, I concluded to shear all the shearing goats in the flock. I began shearing the 23d of December, and finished January the 4th, and cut 1,989 pounds. Several bucks rented out will make the entire product over 2,000 pounds, which is unquestionably the largest clip ever shorn from a single flock in the United States, and has never been equaled in quality. The product per head was for grade kids of last spring (from three-quarters to fifteen-sixteenths), gave from one to three pounds; yearlings and over (three-quarters to seven-eighths), sheared from one and a half to three pounds, and occasionally from four to five pounds.

From my memoranum I give you weight of a number of fleeces from pure bloods and some high grades viz: Pure blood ewe, Cleopatra, sweepstakes at fair, six years old, 6½ lbs.; do. do., 2 years old, 4½ lbs.; do. do., 2 years old, 4 lbs.; do. do., kid, 8 months old, 3 lbs.; do. do., 8 months old, 2½ lbs.; do. Cleopatra, second, 20 months old, 5¾ lbs.; do. S. B. Anthony, 6 years old, 6 lbs.; grade, 31-32, 3 years old, 6 lbs.; pure blood ewe, 3 years old, 5¼ lbs.; do. do., 3 years old, 5 lbs.; do. do., 5 years old, 4 lbs.; do. do., 2 years old, 4 lbs.; do. do., 3 years old, 5½ lbs.; do. do., 4 years old, 4½ lbs., etc. Pure blood buck, 4 years old, 6½ lbs.; do. do., 4 years old, 6 lbs.; do. do., 2 years old, 4½ lbs.; do. do., 3 years old, 6½ lbs.

The bucks, it will be perceived, sheared but little if any heavier than the ewes. This is the result of over work during the season just closed, as I was compelled to give them nearly twice as many ewes to serve as they should have had. The above bucks have shorn seven, eight and nine pounds.

Profit Assured.

The foregoing figures from actual weight certainly settles the question of quantity of mohair well bred goats with seasonable care and pasturage will produce, and forms a correct basis from which to estimate the profits of goat breeding. Last year's clip brought for low grade 20 cents, and high and pure blood 85 cents; average 52½ cents; one-half the clip going in as "shorts," at 20 cents, and the other half "fine long," at 85 cents. The present clip well assorted will bring from 60 to 65 cents.

Although sheared in mid-winter, with rain almost every day, I experienced no difficulty in keeping the goats comfortable, except to exercise a little more care in seeing the shorn ones properly sheltered at night, and also during the day if it rained hard, and feeding hay to the kids and those in the pen from which I was shearing the grown ones, finding time between showers to gather sufficient food.

Advanlage of Winter Shearing.

This is the only instance in which winter shearing has been attempted to any extent, and I shall certainly practice it in the future, endeavoring to make a better "guess" at the weather. The mohair will be much cleaner and free from stains of the corral, bright, lively and glossy—no matting, felting or kemp (as you will perceive from samples I send you, which were taken promiscuously from high grade and pure blood fleeces), and will save a good deal of mohair that would shed off before spring. Another and very important consideration is that the ewes will be handled before being far advanced with kid. I would therefore advise shearing the first fair weather after the 20th of December, being careful to shelter during hard rains.

The weather is now bright, with very frosty nights, ice one-fourth of an inch thick, and though there is plenty of shed room for the entire band but few occupy it, preferring to lie close together on the outside. The komp with which nature provides the Angora goat when it sheds its mohair in the spring begins to grow at this season of the year, and will, in a few days, attain sufficient length for their protection from the weather.

We intend purchasing all the mohair that can be brought forward, paying therefor all it is worth, according to quality. I hope, therefore, that breeders will not fail to shear and take care of their fleece, whether much or little, inferior or of fine quality, it will be much better converted into fabrics than allowed to waste; besides, it is due the manufacturers who have expended large sums of money in the purchase and erection of machinery, for the purpose of working this textile, that we should, as far as we are able, to keep their machinery in motion.

Extent of the Industry.

The experimental stage of Angora goat breeding is passed, the product of a flock of goats and the price of the staple can be as accurately estimated as of a flock of sheep or herd of cattle, or any other stock, and only has to be followed intelligently and energetically to insure success. There are now in this State and adjoining Territories about 140,000 grade goats, (mostly from the character of bucks used) not mohair producing. With the increase of kids the number will reach, next spring, about 200,000, but unfortunately the number of pure bloods are greatly disproportionate in numbers to the grades. To obviate this, and utilize the grades for the production of mohair, instead of more hair, there must be large additions made to our stock of pure bloods, by importation from Asia. This, the association intends doing during the ensuing summer. We also contemplate, aside from the natural increase of our grade flock, to add to it by purchase—this will establish a nucleus or head to the business, from which persons engaging therein can make their selection of grade ewes and choice pure blood bucks. N. GILMORE.

El Dorado, Cal., January 19th.

[The samples of mohair, to which allusion is made, are received and are exceedingly creditable. The staple is peculiarly fine and clean. We shall be pleased to show the same to any interested reader of the PRESS who may favor us with a call.—EDS. PRESS]

THE HORSE.

The California Horse.

It is to the advantage of all those who undertake measnres for the improvement of stock to have an animal worthy to build upon. In this respect we find A. T. Dunbar advocating the claims of the native California horse in the columns of the Stockton *Independent*. We qnote for onr readers as follows:

None but their ancestors, the Barbs, can excel the native California horse for endurance and rapidity of motion, and those only because they are domesticated and therefore more carefully bred—the wild horse inbreeding to excess, and at a tender age.

Its Origin.

The wild horse, whose ancestors came from Spain, was brougnt over in small sailing vessels, dangerous aud long voyages, without steam or any of the modern facilities of the present age. Horses selected for such an expedition must have been of the choicest kind, steady nerve, good disposition, agile and wiry, else they could not endure the rocking and swaying motion of such small ships for so long a time. the ancestors of the "mustang" were in every possible sense the equals of the adventurous men who attempted so much. They, like their leaders, were of the choicest kind, the best blood. In this way the purest and ablest Barb blood was secured, a nucleus from which the activity and endurance of the wild horse has been produced Occident, considering his age and advantages—having but one cross—has placed himself as the representative California trotting horse, not only at the head of the United States, but of the world. Contrast the number of horses in California with that of the other States and the world, as only in this way can a judicious comparison be made. and it will be fully one thousand to one. Compare the age and experience of Goldsmith Maid with the age and advantages that Occident has had, and make sufficient allowances for the injury to his feet, etc., and he is far ahead in the aggregate of the world, and I have no doubt that before so many years roll over his head as the Maid has seen, that he will have reduced the time of his record below 2:14. Had his feet been right, he could not have thrown a quarter crack, and as with Smuggler with his improved feet came steadiness, so it will be with Occident, who must, in his greatest feat, have labored to a great disadvantage. There is not to be found a more symmetrically and better built, or more evenly balanced horse in existence—comparing favorably with Tom Bowling and Fellowcraft, having the proper length of certain bones to work tendons and coarser muscles, for muscle, without sufficient bone power in the horse, is like the strong string with a weak bow. The strong string with the woak bow is deprived of its full powers. Just so with the horse; bundles and knots of muscle are only extra weight, without suitable bone power to work them. Occident does not in this way carry a pound weight of either waste

(Continued on Page 78.)

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. J. V. Webster, W. M.; Amos Adams, Sec'y.

The Grangers' Business Association of California is at No. 351 Market St.

Grangers' Business Association of California.

Notice of Annual Meeting of Stockholders.

The Annual Meeting of the Stockholders of the Grangers' Business Association of California, for the election of Directors, will be held at the office of the corporation, in the building at the north-east corner of California and Davis streets, in the city and county of San Francisco, on Wednesday, the sixteenth day of February, 1876, at the hour of ten o'clock in the forenoon of that day.

T. J. BROOKE, Vice-President. WILLIAM VANDERBILT, Secretary.

New Constitution and By-Laws.

We have the amended form of the Constitution and By-Laws and Rules of Order of the State Grange; the Declaration of Purposes, Constitution and By-Laws of the National Grange, and blank form of Subordinate Grange. Constitution and By-Laws now printed in one pamphlet. Granges supplied at five cents per copy, post paid, from the RURAL PRESS office, San Francisco.

GRANGE DIRECTORY.—We have concluded to postpone the printing of our Grange Directory until the first week in February, in order that it may embrace the records of elections in the several Granges which are now coming in each week. At that time we shall give a full list of the officers of the State Grange, Deputies names of Councils, Subordinate Granges, Masters and Secretaries.

The Farmers' Insurance Association.

The California Farmers' Mutual Fire Insurance Association was organized May 25th, 1874, with a capital stock of $100,000, $50,000 of which was paid up at the start and $50,000 more in March. The company, however, did not go into operation until the 1st of September following. The officers of the company are as follows: J. D. Blanchar, President; I. G. Gardner, Vice-President; G. P. Kellogg, Treasurer; Ferd. K. Rule, Secretary.

The above named, together with the following, comprise the Board of Trustees:

I. C. Steele, San Mateo; A. Wolf, Stockton; W. H. Baxter, San Francisco; J. C. Merryfield, Dixon; A. B. Nally, Santa Rosa; Charles Laird, Salinas; A. D. Logan, Colusa; G. W. Colby, Butte county; C. J. Cressey, Oakland; E. W. Steele, San Luis Obispo.

During the first seven months of its existence its total expenditure was but $5,485, which small amount put the institution into good working order, raised the risks taken to $875,737, and realized a net income of $10,379.

At a meeting of the stockholders, held on the 9th of September, 1875, the capital stock was increased to $200,000, and in January, 1876, a levy of ten per cent. was made upon such increase. During the full year of 1875, just closed, the entire expenses, taxes, commissions, salaries, rent, clerks' hire, and all other expenses, have reached only to the amount of $15,849.78; with which amount of cost, risks have been taken to the amount of $2,969,452. The total amount of premiums received during the year is $62,420.25.

The cash income during the same time has been $39,526.21, to which should be added bills and notes received for premiums remaining unpaid, $15,118.08—making the total gross earnings for the year $54,644.29, from which deduct expenses and losses (the latter amounting to only $821), and we have a net income of $37,973.51, or within a small fraction of thirty-eight per cent. per annum for the amount of capital invested. This association has been established essentially as

A Farmers' Institution.

At first farm risks only were taken, but the directors have recently decided to take detached town risks, under certain circumstances. We are assured that no risks, however, will be taken which will involve anything like the heavy consequences inseparable, from ordinary town and city risks.

This institution was originally established exclusively on the mutual plan, insuring on farm property only; but so great has been its success, that it has recently been decided to carry risks upon "flat policies," and such facility will be increased from time to time, as the business may demand, by calling in the balance of the capital subscribed.

The above report of the condition of the company has been taken from the statement which will soon be officially issued by the State Insurance Commissioner for the year 1875, and shows a most economical management of its affairs.

People in this city who own property in the country will do well to inform themselves with regard to the advantages which this company presents. Country dwellings, school houses, store rooms, hay, grain and other produce on storage, furniture, farming implements, etc., are all such properties as should seek this company for insurance. To the above, as has already been intimated, detached dwellings in towns have been added.

Proposed Amendments to the Constitution and By-Laws of Subordinate Granges.

At the last meeting of the State Grange, considerable evidence was manifested in favor of a change of the general form of Constitution for Subordinate Granges. No action was had, however, according to the report of the minutes. As every Grange is left to adopt its own rules, not in conflict with the State or National Constitution, a member of the Order offered for the columns of the RURAL PRESS a number of proposed amendments. We submitted the same to the Worthy Master and the Executive Committee, who, after consideration and amendment, recommend the following for adoption by such Granges as have not already similar provisions in their codes:

That Section 5 of Article I of the Subordinate Grange Constitution, in order to conform with Section 2 of Article I of the National Grange, be amended so as to read as follows:

SEC. 5. Election of officers shall take place at the first regular meeting in December, and they shall be installed at the first regular meeting in January, or as soon thereafter as practicable.

That Section 1 of Article II be amended as follows, to conform with Article V of the National Grange:

SEC. 1. All applications for membership must be made in the form prescribed by National Grange. Three black balls shall reject.

That the following sections be substituted for Section 1 of Article IV (headed "Delinquency, Trials, Etc.") and the remaining sections renumbered to correspond.

Any member of this Grange who is six months in arrears of dues shall be notified by the Secretary of such delinquency, and if such dues are not paid within thirty days thereafter such member will be expelled, and it shall be the duty of the Secretary to announce in open Grange the fact of such delinquency and notice, and thereupon the Master shall declare such member expelled, and order his or her name stricken from the roll.

SEC. 6. Members expelled for non-payment of dues may be re-instated upon the payment of all dues delinquent at the time of expulsion, and regular dues up to the date of re-instatement by a majority vote of a regular meeting of the Grange in favor of their re-instatement.

That Section 2 of Article I of the Subordinate Grange By-Laws be amended so as to conform to the official Parliamentary Guide of the National Grange, as follows:

SEC. 2. Thirteen members shall constitute a quorum for the transaction of business.

That Section 2 of Article III, relating to time of electing and installing officers be stricken out, as the same is provided for in the Constitution.

That Section 3 of Article VI be stricken out.

That Section 1 of Article XII be amended to read as follows:

SEC. 1. No member of this Grange shall be expelled, except for non-payment of dues, unless charges be preferred in writing duly specifying the offense, presented by a member of the Order in good standing, and the accused being allowed full opportunity to make defense.

Grangers' Bank of California.

This institution, although started as an experiment, and laboring under many disadvantages during the early months of its existence, has proved itself an assured success, and is rapidly taking a position as one of the soundest financial institutions on the Pacific coast. Its authorized capital is $5 000,000, divided into 50,000 shares of $100 each. The number of shares subscribed at the date of the first annual report, October 11th, 1875, was 24,821, with a paid up capital of $496,420. The number of stockholders was 1,578, showing that its capital stock is largely distributed among the great mass of the agricultural community, for whose especial benefit the bank was established. The number of current accounts, October 11th, was 256, with commercial deposits during the year to the amount of $1,594,947.90. Amount of losses for year ending with the above date was $1,100,474.40.

Since the above date the third assessment has been levied and is now in course of collection, which, when all paid in, will raise the paid up capital of the bank to nearly $750,000.

The list of officers and directors of the bank is as follows: G. W. Colby, President; C. J. Cressey, Vice President and Managing Director Albert Montpellier, Cashier; Frank A. Cressey, Secretary.

The above officers with the following named gentlemen constitute the Board of Directors: C. S. Abbott, Monterey; J. V. Webster, Alameda; John Lewelling, Napa; F. J. Woodward, San Joaquin; J. C. Merryfield, Solano; Thomas McConnell, Sacramento; I. C. Steele, San Mateo; A. D. Logan, Colusa; Thomas Fowler, Tulare.

The bank is chiefly under the management of its Vice President, Mr. C. J. Cressey, an able financier, and one who is intimately acquainted with the wants and necessities of our agricultural interests, in which he is largely interested financially. Geo. W. Colby, the President, is a well known and successful farmer of Butte county.

The Cashier is Mr. Albert Montpellier, a gentleman most thoroughly conversant with all the details of banking business.

The first annual report of the bank was made on the 11th of October last, at which time a dividend of seven and three-quarters per cent. was declared, which is a remarkable result for a new and experimental institution, which had been started and conducted for most of the year under disadvantages seldom encountered by banking institutions anywhere.

The showing made in this first annual report was one of which the managers may well feel proud. Its effect on the large body of stockholders directly interested, and upon the public at large, was to establish such a confidence in the institution as is seldom met with in one so young and so poorly backed by what are ordinarily termed "solid men."

The Grangers' Bank of California does not rest for its support upon the shoulders of a few large capitalists, who in such cases almost always run a bank for speculative purposes, and generally for their own individual gain; but it has been founded upon the widely divided capital of the "bone and sinew" of the State, some 1,600 of whom have come up and pledged their names and money in aid of a financial institution which shall be as broad as the State, and which shall be so conducted as to grow with its growth, and strengthen with its strength, until it shall equal any other banking institution on the Pacific coast. The future of the Grangers' bank is now as well assured as anything in the future, subject to human control, can well become. It is no longer an experiment, but is well out upon the high tide of successful prosperity. We can freely recommend it to the confidence of Patrons and all others who desire to do business with a banking institution founded and conducted upon correct banking principles—the good of the stockholders and community at large rather than of the little ring of managers who control its business.

Grange Notes.

MESSRS. EDITORS:—You say in a late number of the RURAL that you would like to have more correspondence with the farming community, and as I am in that line of business and have been chosen Secretary of Enterprise Grange, perhaps it would be in order for me to give you a few notes for publication, if you think them worthy. I have rough material enough for a good long letter if I had the ability to dress it up and arrange it in proper shape. First in order we had our annual election, which is quite a day with the Granger; but I observe there is not near the scramble for office there is at our State elections. Judge for yourself the reason. Then came our Christmas festivals, with a dance in the new hall at Florin, where all went merry as a marriage bell. Next in order was the installation of officers of Enterprise Grange, January 1st, with feast and dance at night. Only think of it—a harvest feast in middle of winter, with tables loaded down with fruits and flowers, which for variety, quality and quantity could not be excelled in the Eastern States in their summer months. We are a moral people and keep the Sabbath, therefore twelve o'clock P. M. saw us on our way to our several homes, well satisfied with our day's doings. With the exception of myself, I believe Enterprise Grange has got a No. 1 set of officers. We are making a new departure—living at wholesale prices. We take what funds we have and buy goods, take them to the hall and sell them at cost, cash up and take the money to buy again. By so doing we hope to see our grocery bill smaller at the end of the year.

By invitation we next visited our sister Grange at Florin, at their annual installation. After the work was done we feasted and danced till the clock again told us of the approaching Sabbath. This is a live community and for feasting and dancing and good cheer generally, cannot be beat in the State—my word for it.

We have had a very mild winter so far, no frost yet to kill the tenderest plants. Already some of the earlier blooming fruit trees begin to expand their buds, while many of them are still clothed in living green of last year's growth.

The heavy and continuous rains have made the growing grain look bad; but with a little sunshine to dry up the surplus water, it will soon start into new life. Farmers had not generally got through seeding when the heavy rains come, consequently there will not be a heavy harvest. Our ground is so wet now that we cannot get on it to plow, prune or anything else.

Now, Messrs. Editors, if you find any of these fragments worth publishing, all right, if not, I have not vanity enough to be offended.

Yours fraternally, ALBERT ROOT.

Brighton, Cal., Jan. 10th, 1876.

From the Granges.

Round Valley Grange.

MESSRS. EDITORS:—I enclose list of officers of Round Valley Grange, No. 217, elected for 1876. We have now 69 members on the roll. During the past year we have not accomplished a great deal. At one time the matter of a store was discussed, and indeed ample capital subscribed. It fell through, however, it is not very clear why, but probably the subscribers were not the members most interested in the project. Boring for artesian water was among the questions considered, and one or two brothers have practically tested the question, I regret exceedingly to add without success so far. A proposal to build a Grange hall is now before us, and I trust this year may see us with a home of our own. More comfortable quarters to meet in will, it is hoped, ensure a larger attendance and more life in the Grange. I must not forget to mention that we invited the general public to join us in celebrating our first anniversary on the 7th of July, on which occasion we held a grand picnic. We excelled any of the numerous reunions I have noticed in your reports, having not only an ox, but two sheep barbecued, these being presented by brothers for the occasion. W. T.

Covelo, Mendocino Co., Jan. 7th, 1876.

Installation at San Jose Grange.

It was my pleasure on Saturday last to visit San Jose Grange just in time to witness the interesting ceremony of installing their officers for the ensuing year.

All the officers elect answered to the Secretary's roll-call, and were conducted by the Worthy Steward to seats assigned to them, except Bro. H. McClay for Overseer, and Sister L. Fisk for Pomona.

The following is a full list of the officers elected, all of whom were duly inducted into their respective positions, excepting the two named as absent. C. T. Settle, M.; H. McCray, O.; Mrs E. P. Bicknell, L.; W. W. Cozzens, Jr., S.; J. Powell, A. S.; H. G. Hart, C.; W. L. Manley, T., (re-elected); H. Keesling, Sec'y; R. Swan, G. K.; Mrs H. Farnsworth, Ceres; Mrs. L. Fisk, Pomona; Mrs. F. E. Harwood, Flora; Miss Mary Woodson, L. A. S.

The ceremony of installation was performed by P. W. M., Wm. Erkson, assisted by Bro Hollaud.

Although the weather was damp and disagreeable, and the roads very bad, the attendance in the hall was quite good.

The new board of officers enter upon their duties under favorable circumstances, and from what I know of them personally, I have no doubt but they will all perform their duties acceptably to the Grange.

Notice was given by P. W. M. Erkson, that Professor Carr would deliver a lecture before the Grange on the last Saturday of this month; and on motion of the Worthy Lecturer, Mrs. Bicknell, Santa Clara Grange was invited to attend on that occasion.

I was pleased to notice that at the close of the Grange, the members did not rush from the hall like school boys out of an old fashioned district school; but were rather disposed to stay awhile to cultivate the grace of sociability by a cordial interchange of friendly greetings, social chat, and a good hearty handshaking all around.

When I left the hall there was a large circle around the organ, of the members of both sexes, who seemed to be musically inclined—discussing sweet melodies from some new pieces of sheet music—a very pleasant and commendable social pastime, worthy of all commendation. G. W. M.

Santa Clara, January 10th, 1876.

Alhambra Grange, Martinez.

MESSRS. EDITORS:—One of the striking features of the Patrons of Husbandry is the equality of woman in all the rights common to our hardier brothers, and as I read the notes of Grange elections in all parts of the State, and see there the names of so many lady officers, and more especially secretaries, I am almost tempted to whisper to our brother Grangers, beware, beware, lest the frailer tendrils of manhood who have long been guided by his strength do not, in their newly acquired power prove to be as helpless as were the Britons of old, who upon losing the strong arm of the protecting Romans, failed in the contest with the warlike Scots and Picts, and in acknowledgment of their weakness, sent to the Romans the unavailing, but pitiful plea of "the groans of the Britons." Our plea is watch over and guide us in our new and untried positions, and deal leniently with our short-comings in this record work which our heads and hands are so lately adopting.

Alhambra Grange has placed her records at the mercy of a sister, and if her communications come to you as often in the future as they have in the past few months, I fear the RURAL will tire of her promptness in this matter at least. In extenuation of this repeating chat with you, I refer you to Bro. Merry, who with Sister Merry, and the two little merriest of Merry's, were with us to-day, I fear the cold, gloomy morning, sunny, but cold afternoon, together with a housekeeper's plague, a smoking stove, will not prepossess them any too favorably with our Grange, but our good ritual philosophy is, that obstacles in our way test our strength and endurance, and by overcoming the little trials of to-day the greater ones of to-morrow help us in gaining a satisfactory, if not a successful issue. So, hoping they will not be "weary in well doing," but will on a warmer day and under a brighter sky meet the Martinez Patrons again.

A few weeks since I sent you a list of officers elect. To day these officers were installed by Bro. Merry, with the help of Bro. Jones, the Lecturer of Walnut Creek Grange. Though we did not regale them with the usual harvest feast so oft recurring in our Order, we trust they did not leave us hungry as coffee, cake, cold chicken and other meats were generously given by the same culinary artists that presided over our feast of December 4th, of which I wrote you.

Bishop Creek Grange, Inyo County.

Owing to our proximity to the mines, and our isolated position as to the agricultural districts of this and the adjacent State of Nevada, our Grange operations, as a whole, have not been as satisfactory as could be wished; which I apprehend may be accounted for from the following reasons: *First*, This is, strictly speak-

ing, a mining district, and as such, is bound to s certain extent to be governed as such, since the mining interests and their consequent demsnd furnish absolutely all the ontlet for our surplus farm products.

Second, The sbsolute physical impossibility of reaping any present benefit from the Grange organization of this stste, in a commercisl point of view; since, as a body, we are too weak to snpport a Grange store; hence, heretofore we have been held together solely for the good of the orgsnization generslly, with no appsrent results of immediate good to ourselves or even in the immediate future. Were it not for the demand created by the local mines, say within an area of one hundred miles, I apprehend that fsrming would be abandoned, as no man conld live by it. The ssme is true of the mines to a great extent—since, if those who are operating in that line had to procure their snpplies from any other locality, the expense wonld be fonnd so great that it would materially cripple their operations. Thus far, the supply has been about eqnal to the demsnd, and will in all likelihood remain so, until "the snort of the iron horse" reverberates among the hills of these lone mountains, which I trust and believe will be fully realized in the not distant fnture.

Our valley is located about equi-distsnt between Carson and Los Angeles. We are bounded on the east by the White mountains, which is thought to be the heaviest mineral belt in the State, perhsps on the continent, bnt the ores, with few exceptions, are what is termed low grade, and will not pay nntil the country is opened np by rsilroads. The west is bounded by the impenetrable Sierras, which effectually cut us off from any direct communication with the coast. The climate is mild and healthfnl. Corn, whest, oats and barley are among the successful crops; vegetables of all kinds are abundsnt, and I have reason to believe thst the same will be trne of fruit when the cspacity of the soil snd climste beomes properly tested. There is a large amount of land in this valley which could be rendered available for agricultural purposes if the surplns water of Owen's river were properly utilized, and I nnderstaud that certain parties from San Francisco, with a view to this object, are making prepsrations in this direction.

Bnt from present appearances I am led to believe that the different Granges of this valley will relieve them of any further trouble in this matter, at lesst it is hoped they will. Times are extremely dull, snd were it not for the mails which occasionally arrive to inform us of what is going on in the outside world, with the addition of a "trembler" to arouse us into consciousness, we might relapse into as shsolute a somnolency as ever Rip Van Winkle did. There are, however, many things in this vicinity interesting to the scientific mind, among which are the dim but unmistskable evidences of a prehistoric civilization, and also our peculiar geological and mineralogicsl formation, on all of which an interesting chspter might be offered, and may form the basis of another letter, if such might seem desirable. J. Arrison, Sec'y.

Progress at Florin.

Messrs. Editors:—A preliminary meeting of fruit growers assembled at Florin Grange, to take action in regsrd to starting a box factory, and to sustsin the parties that will undertake it. A committee wss appointed by the chair, which drew up a formal agreement, when a large number signed. The meeting adjourned to meet at the same plsce in two weeks, at one P. M., to form a fruit growers' associstion. It is the intention to make the shipments of fruit at this station, both to the bay and mountsins, by the fruit growers themselves, employing an agent to take charge of it. A blacksmith shop, express office, telegraph office, shipment of hay, lumber yard and other advsntages will grow out, by msking this a shipping point. The Grangers by uniting and keeping combined, will reap benefits that they heretofore did not hold. G. R.

Florin, Sacramento Co., Jan. 15th, 1876.

The Alhambra Garden

Is, as you may know, famons for its luscious fruits, pnrple grapes, growing olives and lemons and bright gclden oranges. One of the largest of these oranges and the most unique of its kind, was presented by our worthy Master from the sisters and brothers of Alhambra Grsnge to our Secretary elect. This wonderful orange, coming from the golden soil of California, had so truly partaken of the nature of mother earth as to hide away in a masterly cnt recess between the pulp and skin some golden dollars, how many you may guess, though I will say msny more than the recipient deserves or has earned. Nevertheless, she is truly gratefnl, and may she prove a worthy keeper of this golden orange, and a faithful medium in recording the workings of Alhambra Grange.

Mrs. Maria B. Lander, Sec'y.

Jan. 15th, 1876.

Lompoc Grange.

Messrs. Editors:—Our Grange hss had it election of officers and a harvest feast. It was quite a success, and as new members, leading farmers in the valley, are coming in, as well as active Grangers from other places coming in to make homes here, we look for a very pleasant and successfnl Grange the coming year. The readers of the Rural Press are more nnmerous, and after another harvest I do not doubt you will have a good many more snbscribers.

Lompoc, Jan. 3d, 1876. J. W. Webb.

National Ranch Grange.

Messrs. Editors:—Previous to our installstion of officers two chsnges were msde which you will please correct from Secretary Blackman's report of the same msde at the time of election. Flora M. Kimball wss elected and instslled as Secretary, and M. Norris as Lecturer. Respectfully, Flora M. Kimball, Sec'y.

National Ranch, Csl., Jan. 14th.

Eden Grange.

The officers of this Grange, at Haywards, were installed Dec. 15th, by Depnty Thomas Hellar. Secretsry Pearce, (re-elected) while hugely enjoying the prospect of a snrprise to Past-Master Holland, wss snddenly charged upon and presented a fine gold pen and elegsnt inkstand. Then Master Joel Russell paid some unexpected and touching remarks concerning one who had been, as it were, the father of the Grange, from its organization, devoting unsparingly his time and his best ability to promote its peace and prosperity, winding up by presenting to the retiring Msster, Thos. Hellsr, on behslf of the members of Eden Grange, with their most sincere regards, an elegant ivory headed cane with gold mountings. It is not strange that Bro. Hellar received snch a noble token from those who know him so well with some considerable emotion and perfect surprise. A good harvest feast, prepared by the ladies of Eden, was afterward enjoyed. The kind and harmonious scenes which occur at our annual installations are becoming a very pleassnt feature of the Order.

Suisun Grange.

The installation of officers will be held Saturday, Febrnary 5th. Worthy Master Webster will be present to conduct tne ceremonies. Members from neighboring Granges will be present. The sisters will spresd a bountiful harvest feast, it is safe to say, on that occasion. Patrons may come from afar off and depend upon not being disappointed upon that occasion.

Yountville Grange.

The installation of officers occurs Ssturdsy, February 5th. All Patrons are invited. Further from a communication just received may be expected hereafter.

Election of Officers.

Bakersfield Grange, No. 139, Bakersfield, Kern Co.—Election, Dec. 31st: O. B. Ormsby, M.; L. S. Rogers, O.; J. R. Riley, L.; J. E. Beede, S.; P. Tibbet, A. S.; L. R. Reeder, C.; Jas. T. Ish, Sec'y; E. Tibbet, T.; Wm. Tibbet, G. K.; Sister L. Hart, L. A. S.

Collegeville Grange, No. 184, San Joaquin Co., Cal.—Election, Dec. 16th, 1875: A. M. D. McIntosh, M.; A. Mayberry, O.; L. R. Chalmers, Sec'y; Duane Walrod, L.; Geo. Beach, S.; D. C. McIntosh, A. S.; Albert Woodbridge, C.; P. P. Ward, T.; W. H. Snow, G. K.; Ida Minehan, Ceres; Annie Giligert, Pomona; Birdee Chalmers, Flora; Kitty Crawford, L. A. S.

Confidence Grange, No. 121, Guadalupe, Cal.—Election, Dec. 11th, 1875, and Jan. 8th, 1876: James Morse, Jr., M.; John Newlove, O.; Geo. C. Cocke, L.; C. H. Streeter, S.; A. McKechine, A. S.; Wm. Van Gundy, C.; J. A. Norris, T.; F. N. Cocke, Sec'y; C. K. Owen, G. K.; Mrs. F. N. Cocke, Ceres; Mrs. E. Austin, Flora; Mrs. Hudson, Pomona; Mrs. S. L. Walker, L. A. S.

Elko Grange, No. 9, Elko, Elko Co., Nev. J. A. Tinker, M.; E. L. Wetmore, O.; E. Burner, L.; G. W. Litton, S.; T. Hunter. A. S.; Jos. Cox, C.; John Hunter, T.; J. L. Keyser, Sec'y; R. Hunter. G. K.; Mrs. A. A. Kneisley, Ceres; Mrs. E. L. Wetmore, Pomona; Miss Msggie Yeates, Flora; Miss Addie Litton, L. A. S.

Florence Grange, No. 95, Los Angeles, Cal.—Election, December 18th: J. R. Tansey, M.; J. Willey, O; J. Russell, L.; J. N. Rush, S.; D. H. Turner, A. S.; Thomas McKee, C.; J. F. Durrell, T.; R. Ranney, Sec'y; R. B. Russell, G. K.; Mrs. E. Tufts, Ceres; Mrs. J. N. Rush, Pomona; Mrs. R. Ranney, Flora; Miss Lizzie Russell, L. A. S.

Grand Island Grange, No. 22, Colusa Co., Cal.—Election, Dec. 18th: Jacob Myers, M.; A. Myers, O; E. Potter, L.; H. D. Strawther, Sec'y; J. C. Wilkins, S.; Thurston Thomas, A. S.; John Welch, T.; James Hearn, C.; Henry Weber, G. K.; Mrs. M. Strawther, L. A. S.; Miss Maga Hearn, Ceres; Mrs. C. Graham, Pomona; Mrs. E. Potter, Flora.

Lamoille Grange, No. 10, Lamoille, Elko Co., Nev.—H. A. Young, M.; A. B. Marvel, O.; J. K. Smith, L.; W. S. McComb, Jr., S.; Jacob Leddie, A. S.; M. E. Stottler, C.; A. Wines, T.; H. M. Trueman, Sec'y; E. H. Byers, G. K.; Mrs. Jewett, Ceres; Mrs. Trueman, Pomona; Mrs. H. Wines, Flora; Mrs. A. Wines, L. A. S.

Panama Grange, No. 138, Panama, Kern Co.—F. P. May, M.; Mrs. M. N. Csldwell, O.; S. M. Meeker, L.; A. Marshsll, S.; O. C. Shelley, A. S.; J. M. Lundy, C.; Mrs A. H. May, T.; C. B. Caldwell, G. K.; Miss Ella Lundy, L. A. S.; Mrs. A. Lundy, Ceres; Mrs. A. Shelley, Pomona; Mrs. M. Baker, Flora; A. Marshall, Trustee; F. P. May, Business Agent.

Plaza Grange, No. 53, Jacinto P. O., Colusa Co., Cal.—Election, Dec. 4th: M. Kendrick, M.; J. W. Blunkall, O; T. E. Brown, S.; E. B. Kesselring, L.; H. W. Steuben, T.; J. W. Bowers, Sec'y; C. Jasper, A. S.; Mrs. Bowers, Ceres; Mrs. Kendrick, Pomona; Mrs. Blunkall, Flora; Mrs. Kesselring, L. A. S.; J. O. Miller, C.

The Value of the "Rural Press."

Messrs. Editors:—I hsve been a constant reader of the Rural for two years, and if it continues in the future as in the psst, you can count on at least one subscriber from this part. My brother, E. B. H., of Saticoy, and myself, hsve obtained quite a nnmber of subscribers among onr Grangers here, which he has forwarded, and hopes to obtain more ss the time or opportunity present themselves.

The fnture in this section looks bright for our farmers, and many new comers are opening homes here who will need the Rural, which is as nearly suited to the wants of the fsrmer as any paper can be. Until I moved here two years since I was a constsnt subscriber of the *American Agriculturist*, of New York, which I then thonght conld not be equaled, but I find our Rural more thsn its equal; in fact I have never heard but one fault found with it, and that is the paper upon which it is printed wears out too soon in lsrge families so ss to unfit it for filing neatly. I will close by wishing you success in the farmer's cause, and promising all the assistance in my power.

Santa Psula, Csl. C. P. Higgins.

In Memoriam.

We publish the following by request of Westminster Grange, Westminster, Cal.

Whereas, In tbe providence of God, He bas seen fit to remove from our midst our beloved sister, Mrs. Hattie McPherson, therefore we, tbe members of Westminster Grange, No. 127, desire to express our deepest sorrow for our loss, and our warmest sympathy for our brother and friends in their bereavement.

Resolved, That the sign of mourning be displayed in the hall at each meeting of the Grange for thirty days from this date.

Resolved, That these resolutions be placed on tbe records of tbe Grange, and a copy of tbe same, under seal of tbe Grange, be furnisbed tbe family of our deceased sister; also tbat a copy be sent to the Rural Press for publication.

Flora E. Bowley,
Jehnie C. Anderson, } Com.
George G. Tompkins.

Agricultural Notes.

California.

ALAMEDA.

Apple Ripening in Winter.—*Independent*, Jan. 22: We have been hsnded an apple hy Jno. Proctor, which has a pleasant tsrt taste, and which he assures us was in hud last August, and has been growing until now on one of the trees in his orchard. It has jnst arrived at matnrity this month and is now fully ripe.

Sunol.—*Enterprise*, Jan. 22: Most of our farmers have completed their duties as to putting in their grain, and in many parts of the valley it is already up several inches. From present indications the yield will far exceed thst of last year. A few weeks of dry weather will give them the necessary guarantee. S. W. Millard is prepsring about one hnndred and fifty acres to sow in alfalfa. No better hay can be found in the State, and our bottom lands are well adapted to its cultivstion. In a small patch of last year it yielded at the rste of four to six tons to the acre, and will give not less than two crops each season.

ALPINE.

Its Depth.—*Chronicle*, Jan. 15: The snow on the summit, Big Trees road, is estimated to be from twenty-five to thirty feet deep—far in excess of that at any time last year, and it has hardly commenced snowing yet. Plenty of water this year.

AMADOR.

Productive Garden.—*Ledger*, Jan. 22: There are a number of fertile garden spots within the boundaries of Amador county, but probably the most remnnerative and productive of them all is situated beyond Jsckson Gate, and owned by Jean Pernollet. A visit to this model garden will suffice to satisfy the most skeptical of the adaptation of the soil and climate of the foothills to the production of fruit of almost every variety. The garden comprises about twelve acres, one of the tributaries of Jsckson creek flowing through it, furnishing the mesns of irrigating. The soil is naturally very rich, but Pernollet spends a large sum of money every year in the purchase of manure, for which outlay he is amply repaid in the prime quality and abundant yield of fruit. Pernollet devotes the whole of his time to his garden and the preservation and disposal of the fruit. He confines his attention exclusively to the raising of fruit. On the premises are found every facility for the manufacture of wine snd cider. The produce of his garden has raised him to a position of compsrative sfluence. The following is a fair annual yield of this oasis in the foothills: Apples, 25 tons; pears, 7 to 8 tons; peaches, 5 to 6 tons; plnms, 2 tons; grapes, 10 tons; blackberries, $300. During the past season Pernollet has made 1,000 gallons of cider and vinegsr, and about the same quantity of wine. The owner finds a ready sale for his fruit at Sutter Creek and other mining camps of the county.

BUTTE.

Settling up.—*Mercury*, Jan. 22: The plains across the river are fast being settled up. On Sundsy last we rode over them as far as the black land beyond, and found a house on nearly every quarter section. How in the world a living can be made, is more than we can guess. It may be that the land will bring a good crop, but if so, people have been much deceived during the psst twenty-five yesrs. Nesr the foothills, some of the shoep men own qnite large tracts, having got men to file on the land, prove np, snd then sell out their interest. Some of the blsck plsces will undoubtedly prodnce well, but it will take quite a numoer of qusrter sections of red land to make a good farm.

FRESNO.

Lumbering Enterprise.—*Expositor*, Jan. 19: A number of prominent citizens of this county have pnrchssed the msjor portion of the right of Chsrles P. Converse in the King's river lumbering enterprise, and are about to ask the Legislsture for a renewal of the franchise. The proposition is, as most of our readers are aware, to clear ont and deepen the channel of King's river, and to erect and maintain booms at different points on the river. In the Sierras, contiguous to the tributaries of King's river, is a body of timber as lsrge and fine as can be found snywhere in the State. This timber can easily be cut and flosted down the river, provided a small amount of money is expended in clearing out the channel of the river at different points. The scarcity of timber throughont the valley, snd its high price, makes the demand for this enterprise apparent to everybody, and if a bona fide company tskes hold of it, with the intention and determination of completing the work, the general sentiment would, we believe, be in favor of an extension of the franchise, but the feeling is strongly against granting any further rights to any compsny to hold, simply for speculative purposes.

KERN.

Grain.—*Courier*, Jan. 22: Loads of seed grain are constantly pssaing through town on their way to Souther ranch. About a thoussnd acres of wheat, and the ssme number of barley, hsve already been seeded, and it is the intention to plant as much more as possible.

The Woolen Mill.—*Californian*, Jan. 20: The inducements we have shown for a woolen mill, especially a wool scouring mill, are abont to bring forth fruit. Correspondence with mill owners at the East hss been opened. A block of land has been offered them for a mill site on the csnal, and four blocks of land at a nominal sum for erecting bnildings for the operatives. The psrties are extensively engaged in the business at the East, where the advantsges are insignificsnt compared with the privileges offered here. We have been informed by Mr. Young, one of the prominent wool growers nesr Delsno, that the numerous herds of that section would drive to Kern river to shear this season if there is a reasonable prospect of a mill being erected within a few months. The mill would obtain the product for an area of territory at lesst 100 miles square, the greater part of which is devoted to sheep raising. There is no enterprise within the borders of California with more promise than this. The water power is not surpassed, the facility for shipping by rsil is excellent, and the need of it to every wool grower in the county and the counties adjoining is pressing.

LAKE.

Work.—*Democrat*, Jan. 15: The farmers are busy most of the time, some fencing, some ditching and some have gone so fsr as to try to plow. Mr. Shepherd, of this valley, has a fine flock of graded goats; they seem to thrive well here. Mr. S will shear in the spring. This is something new for this county, he has taken great pains with them and we hope he will be well rewarded for his tronble. Mr. Wilburn Smith hss a fine patch of alfalfa.

LASSEN.

Fine Stock.—*County Farmer*.—The twenty-four head of beef cattle, mentioned in our last issue, sent to Norton, Reno, by Messrs. Hale & Hesp, of this place, brought $1,512. It seems to us that this fact should be conclusive proof to our cattle raisers thst it pays well to raise fine blooded stock. It costs no more to fatten fine blooded stock than the ordinary Spanish or American breeds, while they attain to a far greater weight and make better beef, which will bring a higher price per pound. It costs something, we admit, to procure a thoroughbred bull, but it will pay.

LOS ANGELES.

Ranches Withdrawn. — *Dispatch*, Jan. 20: A United States lsnd officer arrived to-day from Washington with instructions withdrawing certain portions of the following ranches from sale, and to be set apart as reservations for the Mission Indians; Potrero, Cahuilla, Capitan, Grande, Sants Isabel, Pala, Agua Caliente, Lycusn, Maja and Cosmet. This withdrawal and reservation of lsnds settles the vexed Indian question, and its importance on the future in thst section of Csliforuia cannot be overestimated.

MARIPOSA.

Big Potato from Yosemite Valley.—*Express*, Jan 22: An Irish potato, weighing five and one-fourth pounds, is on exhibition at J. C. Smith's Cosmopolitan billiard psrlors, whioh was raised by Messrs. Coulter & Murphy, in Yosemite valley. If this specimen is an average of the potatoes raised in that valley, we would snggest that parties there plant every spare acre of ground in spuds.

MONTEREY.

Thermal Belt in Monterey. — *Democrat*, Jan. 22: The snow of Friday lay lower down the mountsin slopes than we have ever seen before in this valley. On the plsin, too, in the early morning, piles of "slush"—snow and hail, here and there, showed that the lowest levels had received a like visitation. It was notahle, however, that at the foot of the slopes there was a dark edging, indicating something

(Continued on Page 76.)

My School Days.

By JOHN G. WHITTIER.

Still sits the school-house by the road,
A ragged beggar sunning;
Around it still the sumach grows,
And blackberry vines are running.

Within the master's desk is seen,
Deep scarred by raps official;
The warping floor, the battered seats,
The jack knife's carved initial.

The charcoal frescoes on its walls;
Its door's worn sill betraying
The feet, that creeping slow to school,
Went storming out to playing.

Long years ago a winter's sun
Shone over all at setting;
Lit up its western window panes,
And low eave's icy fretting.

It touched the tangled golden curls,
And brown eyes full of grieving,
Of one who still her steps delayed
When all the school were leaving.

For near her stood the little boy
Her childish favor singled,
His cap was pulled down on his face,
Where pride and shame were mingled.

Pushing with restless feet the snow
To right and left, he lingered.
And restlessly her tiny hands
The blue check apron fingered.

He saw her lift her eyes; he felt
The soft hands light caressing.
And heard the trembling of her voice,
As if a fault confessing,

"I'm sorry that I spelt the word;
I hate to go above you,
Because"—the brown eyes lower fell—
"Because, you see, I love you."

Still memory to the gray haired man
That sweet child face is showing;
Dear girl! the grasses on her grave
Have forty years been growing!

He lives to learn in life's hard school;
How few who pass above him
Lament their triumph and his loss
Like her—because they love him.

Farmers' Wives—Another Picture.

[Written for the PRESS by MRS. M. E. TUTTLE.]

Farmers' wives, on whose shoulders are often laid very heavy burdens, frequently find causes for discouragement while in their few spare moments they pernse the columns devoted to their use in the family paper. Perhaps, as in hundreds of cases, the farm is not paid for and they are straining every nerve by economy and hard work to pay for it; then again, their health is not the best, and the care of their little ones taxes it to the utmost; and then let all men remember that the wife is not the "architect of her own fortune," and is not to blame if there are not hours enough in a day in which to do all the work allotted to her hands.

So while she reads the suggestion that there is no excuse for a farmer's wife to appear at the breakfast table without a clean collar and her hair neatly combed, she feels a wound in her womanly pride of appearances, and then the unselfish information imparted by lady contributors, (whose leisure suggests that they may never have had a house to keep or children to wash), as they expatiate on the necessity of "spotless table linen, and polished silver, and orderly children with shining faces," only fills her heart with discontent and self-reproach while she feels her helplessness in coming to anything like a realization of these ideal pictures. So she is discouraged instead of independently feeling that she is doing the best she can, and if they don't like her appearance and her table not to come so often, (as such people always do,) to be waited on.

Why, how many of us old housekeepers can remember when to have spent the time of a morning adjusting a dainty collar, would have seemed scarcely less out of place than for that terrible historical man to "fiddle while Rome was burning."

Was not there a little one or two running about in their night gowns, and a half dozen hired men (more or less), lounging, whittling or whistling, and casting anxious glances toward the kitchen door; and dozens of little chickens, and mayhap other fowls sounding plaintive peeps for their morning meal, not to say anything about cows to milk and the milk to put away, and us adjusting a tidy frill! Oh, no, *we* tended the babies, gave the men their breakfast, did the duties nearest us hopefully and cheerfully, and a clean conscience has thus often eased the loss of a clean collar. And now, when we can, if we choose, step down in a tidy morning wrapper, we do not forget those days of trial, and we remember our sisters who, to-day, are passing through the same ordeal, and would fain help them any way in our power.

These toiling sisters deserve sympathy and kindness, and a few lessons in independence and self-reliance, instead of pert instructions in what they already understand; or glowing pictures of that unattainable, except to people of wealth or leasure. Then don't be embarrassed when "madam" calls, if your clothes *are* soiled by honest labor, and your hair not dressed *a la mode*. Does the mason blush because his clothes are spattered with mortar as he lays the wall? Some must labor and bear the heat and burthen of the day, and thus conform to Nature's plan.

Watsonville, Jan., 1876.

House Building.

One of the most readable articles in *Scribner's Magazine*, for January, is contributed by John Burroughs, who takes a very common sense view of the subject he discusses. He looks at the house also with the eye of the true artist, recognizing all the accessories to beauty contributed freely by nature, rocks, trees, hills, waters, and desires that in its construction and color it shall harmonize with these. He says: "If one's house existed for its own sake, if it were an end in and of itself, there might be some fitness in the attempt to give it positive beauty. But as the matter stands, only that human habitation satisfies my eye in which the aim of beauty or art as such is entirely swallowed up and lost sight of in the suggestion of comfort, warmth, stability, and I do not think that the house is beautiful, but inviting and home-like. If the builder has added any intrinsic ornaments, anything not in keeping with the necessities of the construction (of course I would not confine him to the bare bones of the case;) if he has clapped on an abominable French roof, which, in our climate, answers so poorly the purposes of a roof, and suggests no shelter or hospitality; if he has thrust up a tower where there is no view to command; or if he has painted his structure one of those light, delicate tints, that is like nothing out of doors, and makes one feel as if the house ought to be taken in out of the wet and the weather. I see he has made a bid for the admiration of the public, and that he had no deep want in his heart to satisfy."

Further on, he says: "What is a man's house but his nest, and why should it not be nest-like both outside and in—coarse, strong, negative in tone externally, and snug and well feathered and modeled by the heart within? Why should he set on a hill, when he can command a nook under the hill or on its side? Why should it look like an observatory, when it is a conservatory and dormitory? The domestic spirit is quiet, informal, unceremonious, loves ease, privacy, low tones; the chimney corner, the old arm-chair, the undress garb, homely cares, children, simple pleasure, etc.; and why should it, when it seeks to house itself from the weather, aim at the formal, the showy, the architectural, the external, the superfluous? Let state edifices look stately! but the private dwelling should express privacy and coziness. But every man's house is in some sort an effigy of himself. It is not the snails and shellfish alone that excrete their tenements, but man as well. When you seriously build a house, you make public proclamation of your taste and manners, or your want of these. If the domestic instinct is strong in you, and if you have humility and simplicity, they will show very plainly in your dwelling; if you have the opposite of these, false pride or a petty ambition, or coldness and exclusiveness, they will show also. A man seldom builds better than he knows, when he assumes to know any thing about it."

THE BEST FOOD.—Dr. Everett, in a lecture on "Best Food for the Best Bodies," says that "children under sixteen years of age should be reared largely on brown bread and milk; then they will possess pearly teeth, brilliant eyes, and healthy complexions." The doctor is also of opinion that, "little women should go out of fashion. Physical diminution can be avoided by right methods in the use of food.

AT the recent meeting of the Baptist association at Eden, Me., there were two candidates voted for as moderator, Rev. Mr. Fish, of Brooklyn, and Rev. Mr. Bartlett, of Sedgwick. The chairman counted the votes and declared them thus: "Brethren, all that comes to our net is *Fish* except a pair, and that is Bartlett."

HE has five girls, and he says they sha'n't have no fellers around them, so he takes each one in turn every Sunday afternoon and rubs her teeth with an onion, and, as he quietly remarks: "None of 'em ever has a beau a second time."

"They say a woman can't keep a secret," remarked a Division street woman to her husband, "but Martha Jones told me in confidence last night that she is to be married soon, and I haven't even told you."

COULD anything be neater than an old darkey's reply to a beautiful young lady whom he offered to lift over the gutter. "Lor, missus," said he. "I's used to lifting barrels of sugar."

A GENTLEMAN who has the power of moving his scalp was amusing his little niece with the trick lately, and she expressed her surprise by exclaiming "Ma, just see uncle wink his hair."

Tapestry.

In early English mansions the walls of apartments were usually covered with tapestry. In those days there were not so many broad plain surfaces on the walls, and the rooms were lower than now. There was more wood work; large ornamental fire-places, dados, cornices and window recesses occupied much of the walls, and they were often entirely or partly panneled in oak. The furniture was massive, while trophies of the chase and the battlefield held a prominent position, and tapestry completed the mural decoration. That the wall was beautifully painted seems probable, for the number of churches having mural paintings is so great that a list of such has been published by the science and art departments of South Kensington. These specimens of wall painting have been, for the most part, discovered under many coats of color after ages of neglect.

Tapestry weaving is said to have been introduced into England in the time of Henry VIII. by William Sheldon, who brought workmen from Flanders about 1540; but probably the art was merely revived at that period, for so early as 1302, Lord Arundel bequeathed to his wife Philippa the hangings in his hall recently made in London. However, tapestry seems to have been brought to great perfection in the middle of the sixteenth century, and about that time were not uncommon in the houses of the middle classes.

Stamped, painted and gilded leather has long been in use as a wall decoration. It is said to have been invented by the Spaniards, though introduced into England by the Flemings in the reign of Henry VIII.

How to Succeed.

The young man who thinks he can carry his boyish pranks into the serious business of life, is not a man, and defrauds himself and his employer. "After work, play." That should satisfy the most sanguine. "Business before pleasure," is the motto of the prudent man, whose guide is experience, and it is sufficient for the novitiate in active life.

But it is despicable to see the young man just starting out in life so wedded to his former enjoyments as to place them above present duties. Yet this is often the case. The young man, who to steer his own bark launches forth on the sea of life, too often looks back on the pleasures he leaves behind; and, forgetful of present duties, steers back to past enjoyments. There is no royal road to success any more than to knowledge. He who would succeed must work; and, after all, there is more real enjoyment in work, which has a worthy object, than in play, or pleasure, intended to kill time. We remarked a few days ago to a business man whose present means are amply sufficient, but who worked really harder than any of his numerous employees, that he ought to "take it easy." Said he: "I am never so happy as when I have more than I can do. I may wear out in working, but I dread to rust out in idling." He was right. His work was a part of himself, a part of his life, and it was always faithfully done. To apprentices, especially, this earnestness and interest in their work is necessary, if success is ever to be attained.

FRANKNESS IN LOVE.—One of the most essential things in all love affairs is entire and perfect frankness. Both parties should be frank—true to themselves and truthful to each other. How many uneasy, troubled and anxious minds, how many breaking and how many broken hearts there are to-day in which content and happiness might have reigned supreme but for want of frankness! Repentance inevitably comes for all these things, but it often comes too late, and only when the evil produced is incurable. In love, as in everything else, truth is the strongest of all things, and frankness is but another name for truth. Then always be frank. Avoid misunderstandings; give no reason or occasion for them. They are more easily shunned than cured; they leave scars upon the heart. You are less likely to be deceived yourself when you never deceive others. Frankness is like the light of a clear day in which everything may be plainly perceived.

A KEEN WITTED servant girl in Troy told the milkman the other day that he gave his cows too much salt. "How do you know that?" said the lactealist. "Sure I kin tell be the milk that they drink too much water entirely," said the girl. The milkman drove off in a hurry.

"MY dear," said a rural wife to her husband, on his return from town, "what was the sweetest thing you saw in bonnets in the city?" "The ladies' faces, my love."

HONEST and courageous people have very little to say about either their courage or their honesty. The sun has no need to boast of his brightness, nor the moon of her effulgence.

WE can never surprise Nature in a corner; never find the end of a thread; never tell where to set the first stone.—*Emerson's Essays.*

WHY do people call for a piece of string, and did anybody ever hear of one calling for a whole one?

Babies.

We do not know whether the following is original with the London *Sanitary Record*, in which we find it, but we feel that we are doing a service to the babies in reprinting it:—

These noisy parents of the race to be would, if they could, frequently tell stories of a great amount of needless suffering which is entailed upon them by the thoughtlessness of their "good natured friends." When they first wake up, it is no uncommon thing to have a candle flared before their eyes, to amuse them with the "pretty red light;" then, perhaps they are jumped, screamed or whistled at, tossed up in the air so violently that their nerves are thoroughly shaken. At other times the infants are poked in the ribs, unclean fingers are thrust into their mouths, whether the poor things like it or not, or they may be tickled into spasms, or "bo-peeped" at so vigorously as to thoroughly scare them, if it does not induce St. Vitus'dance. Should the poor, helpless victim scream, which is the only protest it can make, it is libelled by being called fractious, and perhaps dosed with soothing syrup.

Other kind friends of the baby will, in the most thoughtless manner, kiss and hug the poor little victim, even when suffering themselves from sore throat or colds, and so entail an unknown amount of evil on the child, simply from want of the commonest thoughtfulness.

If some of these boisterous nurses and friends would remember that a very little violent excitement goes a long way with infants, they would save them much needless suffering both in the present and in the future; rest and quietness are the chief things they require, and yet seldom get, especially in a large family, or where there are many friends who take their turn to tickle and amuse the victim into a sort of hysterical spasms, and then think him or her happy. Again, in playing music to them, the most noisy and startling tunes are generally selected, to the acute torture of the sensitive tympanum, instead of those airs which are most soothing and gentle.

These are a few of many needless sufferings to which children are thoughtlessly exposed. Another very common source of torture is carelessness in wheeling the perambulator. In street crossing, these vehicles are more often than not allowed to bump down the full hight of the curb stone, and then driven full tilt against the opposite curb. Such shocks try severely the spine and nerves of the tender infants, who are unfortunately consigned to the mercies of a careless nurse. We once heard of a baby who was reported to have said, "how stupid parents are!" and if that infant prodigy should live to be a hundred years old, it would never say a truer thing of the majority of fathers, mothers and relatives in general.

CO-OPERATION OF THE WIFE.—No married man ever prospered in the world without the co-operation of his wife. If she unites in mutual endeavors, or rewards his labors with an endearing smile, with what confidence will he resort to his daily toil, meet difficulty and encounter danger, if he knows that he is not spending his strength in vain, but that his labor will be rewarded by the sweets of home. Solicitude and disappointment enter the history of every man's life; and he is only half-provided for his voyage who finds but an associate for happy hours, while for his months of darkness and distress no sympathizing partner is prepared.

HOW YANKEE POTATOES DO IN ENGLAND.—The *Standard*, of Coventry, England, states that last spring one pound each of the Snowflake and Eureka potatoes, two new American varieties, were planted in the gardens at Capesthorne, the seat of Mr. Bromley Daveuport, M. P. On the 13th of September the Snowflake was lifted, when it was found that the one pound had produced the surprising weight of 638 pounds. A week later the Eureka was lifted, and it was ascertained that the pound of seed potatoes had produced 1,082½ pounds, the largest yield on record. Three hundred of the tubers weighed 369½ pounds.

MY MOTHER.—How many sweet and holy recollections do these few words recall to those who have been blessed with the never ending affection of a mother! No change of fortune, no loss of influence, not even the loss of character itself can destroy a mother's love. Her love can soothe the pangs of sickness, and turn aside the arrows of misfortune. The name of mother is among the first words that fall from a child's tongue; the first idea that dawns upon the mind; the first and most lasting tie in which affection can bind the heart of man. Absence cannot chill a mother's love, nor vice destroy a mother's kindness.

LIVED IT DOWN.—An honest blacksmith was once grossly insulted, and his character infamously defamed. Friends advised him to seek redress by means of law, but to one and all he replied: "No; I will go to my forge, and there in six months I shall have worked out such a character, such a name as all the judges, law courts and lawyers in the world could never give me." He was right. It is by honest labor, manly courage, and a conscience void of offense, that we assert our true dignity, and prove our honesty and respectability.

The Burdens of Life.

We all have them to bear, and there is no escape. With some the burden is poverty, with others ignorance, or loneliness, or care, or neglect, or ill-health, or hereavement, and no two hurdens are alike. Some carry a load of nnsatisfied longing and of quenchless aspiration from the cradle to the grave. This is the grandest burden one can bear, as that of conscious guilt is heaviest and most grievous.

Sometimes we are able to shift the weight from one shoulder to the other, but often it is as a yoke on our necks that with all our efforts will stay in jnst the one place. Due attention to business, careful investment and shrewd foresight enable many to rise from poverty to wealth, but in doing this they by no means get rid of that trouble to which all men are horn—panics frighten and ruin them, railroads become insolvent, banks break, flood and fire and whirlwind desolate, insurance companies fail.

"And,—when he thinks, good, easy man, full surely
His greatness is a-ripening,—nips his root,
And then he falls——."

The burden of ignorance is another that may be sensibly lightened so long as continued progress up the hights of learning gives one the consciousness of advancement, but the higher we get the more do we see of the unknown and the unknowable, the further do we remove ourselves from sympathy with the mass of onr fellows. Mountain tops are cold and solitary, and, for the most part, unfrequented. We change the place and keep the pain, and so we are forced at last to the conclusion that the poet taught us long ago, though we wonld n't learn it, that:

Not enjoyment and not sorrow
Is our destined end of way;
But to *act* that each to-morrow,
Find us farther than to-day.

We children, old and young, are all at school; tasks are given us to perform, and there is a dark closet or a hickory switch, or keeping in after school for those who are idle or insubordinate or stupid. Divine Providence takes us all in hand, and, rewarding the diligent, visits condign punishment sooner or later on all offenders and delinquents. There is no choice at all in the matter; the issue is obedience or disobedience, with reward or penalty. Not seldom do we feel that the lesson is so hard we never can learn it, the task entirely beyond our strength; but we are kept at it, and kept at it, until we conquer or the master, discouraged with our dullness, gives us over to perpetual stupidity, Now, in such a case, what is the best thing to do? Isn't it to "buckle right down" cheerfully and patiently and persistently to the task assigned, until light breaks in somewhere, or the master, seeing our efforts, lends a helping hand? When this lesson is learned, rest assured there are more to come, in another branch perhaps, and if we don't wish to be kept down in the primary classes all our lives we must study. If what has been said is true, what is the wisest, most politic, most prudent course for ns to take? Shall we sit down and refuse to carry the burdens laid on our shoulders? Thus doing they will crush us to the earth. The only sensible thing to do is to march on, walking firmly when we can, staggering when we must, looking at the blue sky over our heads instead of the rough road beneath our feet, catching all the joy we can from bird songs, flowery perfumes, pleasant talk by the way with other burdened souls; and keeping evermore steadfastly in view the day when we expect to hear "Well done, good and faithful servant, thou hast been faithful over a few things." Shall we not then resolve that "henceforth life shall not be shirked, life shall not be shunned, life shall not be picked over, as piggish boys pick over puddings for just the plums, but that this life, this one common life, this good and finished life, which God has made good, shall be accepted, seized, held fast, embraced, anchored to, shall be accepted as a good and satisfyiug inheritance, the whole of it, and without amendment, or any approved wish for amendment or change?"—*Tribune.*

THE DEATH KISS.—Womau's love! is there anything like it? A Canadian's wife has just died in Raleigh, and he has taken her to Canada to bury her under the native sod. She died in a land of strangers, but she left behind the name of a devoted wife. It was love in death. He saw her sinking fast—he knew it, she knew it—it was consumption. He nursed her like a little child, the great strong man, and there they were in the room together the night she died. She wanted to see ont, to gaze once more at the world outside; but he entreated her against it, and told her that to take her up wonld make her worse; but she told him she was dying anyway, and he lifted her tenderly in his arms and walked with her about the room, holding her to his breast and showing her this object and that, pointing out every pleasant thing, and she kissing him with every breath till the last breath had gone, and the kiss died cold on his cheek. When God made man, he put all of heaven in a woman's love, and told him to win it, and be worthy of it.—*Vicksburg Herald.*

IT is a fact, perhaps not generally known, that any acknowledgment by a couple of proper age that they take upon themselves the responsibilties of man and wife, made pnblicly or before two or more competent witnesses, and subsequently duly recorded, is a legal marriage.

A VERBATIM report of a recent marriage ceremony in Iowa: "Join your right hands. Do you want one another?" "Yes." "Well, then, have one another. You are man and wife."

YOUNG FOLKS' COLUMN.

Children and Their Homes.

Children, you all love your homes; I take that for granted, that is, if that home is at all loveable. Now what do you do to make that home pleasant? Children are too apt to regard the keeping of a home as a duty incumbent upon their parents, without realizing that they have as much to do with its formation almost as the parents themselves.

Home is not perfect without the help of every member of the household. It has been beautifully likened to a harp—if all the strings are attuned in harmony sweet melody is the result; but if one is ont of tune it jars harsh discord upon the senses. The parents' duty is to furnish a home where the comforts of the body are provided; where the mind is educated and the soul is trained and guided by pure teachings and holy example. The children's duty is to respond to the efforts of their parents—to echo, as it were, the attention and affection shown them.

Do the wee ones, whose little hands are too tiny to more than pluck the blossoms by the wayside, remember that they can learn to help keep home tidy by picking up the little things that will get strewn about? Whose hands so gentle in soothing away mamma's headache or papa's frown, as the little one that knows not its own strength? The little boy and girl can do many little tasks deftly—for boys, it is no lessening of dignity to learn to be handy about the house and help mother in her numerous household tasks. The manliest man I ever knew personally, takes laughing pride in his knowledge of house work, gained when he was a boy, the help of a mother who boasted of five boys younger than himself.

Then do not hesitate to engage in the many duties that await you in the home; and girls, save your mothers every step you can. Be light of heart and quick of foot, that your presence may bring real heart sunshine into the home circle. Be true daughters, true sisters, making all who enter that home circle love and rely upon you. Do not be afraid of work, lest you brown or harden your hands; do not cast upon your mother a task because "she can do it quicker," or you "are just going out for a little walk." It is she who needs the respite most; it is you who can give it her.

Home is not a rose lined paradise, where all can sit and sing sweet melodies, unruffled by a cloud of care. Home is a place to love in and a place to labor in. The tasty rooms will grow unlovely, the ornaments will gather dust, and the myriad duties of home life will become distasteful and monotonous unless there is an earnest spirit that gives you courage to go on, day after day, with these same unchanging tasks. That courage comes from a higher love than love of self—and when the right love fills the heart, the commonest tasks become glorified and invested with a beauty we never saw before.

Then remember, girls and boys, to do your part toward making a home. It is a duty that rests upon each one of you, and unless you fulfil it conscientiously you will lose many moments of rapture and will rob the future of many pleasant and joyous memories, and also the consciousness of haviug done right.—*Young Folks' Monthly.*

A Word for the Boys.

Commodore Farragut at Ten.

The late Commodore Farragut, who served his country so well and so bravely dnring the late war, and who stood at the head of the United States navy, used to tell us the following story of his experience when but a boy of ten:

Would you like to know how I became what I am? It was all owing to a resolution I formed when I was a boy but ten years of age. My father was sent down to New Orleans with the little navy we then had, to look after the treason of Burr. I accompanied him as cabin boy. I had some qualities that I thought made a man of me. I could swear like an old salt; could drink as stiff a glass of grog as if I had doubled Cape Horn, and could smoke like a locomotive. I was great at cards, and fond of gambling in every shape. At the close of the dinner, one day, my father turned everybody out of the cabin, locked the door, and said to me:

"David, what do you mean to be?"

"I mean to follow the sea."

"Follow the sea! Yes, be a poor, miserable, drunken sailor before the mast, kicked and cuffed about the world, and die in some fever hospital in a foreign clime."

"No," I said, "I'll tread the quarter-deck, and command, as you do."

"No, David; no boy ever tread the quarter-deck with such principles as you have, and such habits as you exhibit. You'll have to change your whole course of life, if you ever become a man."

My father left me and went on deck.

I was stunned by the rebuke, and overwhelmed with mortification. "A poor, miserable, drunken sailor before the mast, kicked and cuffed about the world, and die in some fever hospital!"

"That's my fate, is it? I'll change my life, and change it at once. I will never drink another drop of intoxicating liquor; I will never gamble." And, as God is my witness, I have kept those three vows to this hour.

GOOD HEALTH.

Responsibility of Housekeepers.

(Written for the PRESS by LORAINE.)

Health is a matter universally held of the first importance, for without it people are unfit for most of the duties of life, unable to enjoy its pleasures, and usually experience more or less mental and physical suffering.

It has been decided, not only by the most eminent of the medical profession, but by the majority of enlightened people everywhere, that a man's food, that is, what he eats and how he eats it, has more to do with the state of his health than any one other ordinary condition.

If this be the case, it follows that a rather heavy responsibility rests upon the shoulders of the housekeeper, particularly if she also fulfills the office of cook.

Now, the majority of housekeepers are good, well meaning persons, but what miserable work they often make with the preparation of food. If they study the subject at all, it is to make their dishes present a good appearance, and taste well, giving very little consideration to the wholesomeness or unwholesomeness of the ingredients.

People who seem to exercise a fair amount of common sense with regard to other matters, show themselves miserably deficient on the subject of hygiene, as relating to food and the proper time to take it.

One woman forbids her children eating fruit at breakfast time, because they are delicate; and allows them to have coffee, hot doughnuts, and fried pork.

Another housekeeper in cooking beans parboils them in three waters, carefully pouring away each water to get the "poison" out, and cooks all her fruit in a tin pan, allowing it to remain in the pan two or three days, thereby absorbing a quantity of positive metallic poison from the action of the acid on the lead contained in the tin.

Not one housekeeper in twenty enjoys perfect health, yet none of them will admit being troubled with dyspepsia, or even the slightest indigestion.

Mrs. Smith is afflicted with sick-headache two or three times a week, always after eating roast pork or boiled cabbage; but of course those dishes have nothing to do with it, it is constitutional, or is caused by the cold or by the heat.

Mrs. Brown is subject to colds, dizziness, bad breath, no appetite in the morning, and a multitude of aches and pains; but none of these are attributable to the pastry, black pepper, greasy gravy, hot white bread and biscuit that she indulges in every day. O, no! it is the air, or the location of the house, or her having to do housework, or not being able to ride often. And so she goes on, until too unwell to eat anything at all for a day or two, not even a mouthful of pork and beans, or a bite of mince pie; then she takes a dose of some patent medicine, or pnts a plaster on her back, and meditates on the mysteries of Providence.

Providence has little to do with the poor health of American women, the blame rests mostly with themselves.

The health of the whole family is to a great extent in the hands of the mistress of the house. She usually buys the food, and if she does not buy it, she prepares it for the table, or oversees its preparation, and can easily spoil the biscuit or the pan-cakes, or corn bread with over doses of soda, and fill the vegetables and meat with black pepper and pork fat, making them fit for nobody to eat, not even a savage. The other inmates of the house are obliged to eat what is put on the table, or take the alternative of starving, and the result is the general prevalence of dyspepsia.

Heads of families, and particularly housekeepers, should be better informed with regard to the properties of different kinds of food, and the best modes of preparing them, and when that time comes we shall see an improvement in the general health of the people.

Santa Cruz, January, 1876.

Eyesight of Engine Drivers.

A communication has recently appeared in the English papers addressed by Mr. Watson, surgeon of the Great Northern hospital (Eng.), which is calculated to set railway travelers on the *qui vive* in regard to the possibilities of danger in such traveling from a heretofore unsuspected quarter. This correspondent is actually "convinced" that it is a matter of some uncertainty whether the drivers in charge of trains are not often suffering from an affection of the eyesight. Mr. Watson's far from re-assuring conclusions upon this important snbject have been derived from professional attendance upon the late driver of one of the fastest express trains. The condition of this man's power of vision was such as to preclude him from seeing at a distance beyond twenty feet objects which should have been visible at 200 fect.

It is satisfactory to learn that this particular driver, in the face of probable visitations of snow and fog, had the honesty to relinquish work which he could not have performed but with great risk to the public. It is far from clear, however, that every driver afflicted with amanrosis wonld manifest so laudable an appreciation of the moral code as to resign lucrative employment out of consideration for the pnblic safety.

DOMESTIC ECONOMY.

Cooking Potatoes.

"She cannot even cook potatoes," is an expression I have heard more than once. And it is true of altogether too many attempting to keep house. They being such a "stand by" as "something to eat in the house," it certainly is worth while to know how to prepare, cook and serve them the year throngh.

Growing potatoes should be cooked the same day they are dug; though they will keep a few days if the crevices between them are kept filled with moist earth. The quickest way to get the skin off is to pnt them in a pail or other deep vessel with bits of brick or stone, and water enough to just cover all, and stirred briskly with a rough stick. The fire must be attended to before the potatoes are put over it. If any fresh fuel is to be added, then is the time, for it is so apt to check the heat and so spoil the potatoes. They must not stop cooking until taken off. They are best steamed, provided the steamer fits half way into the kettle. If the steamer fits just on top, it is hard to get sufficient heat to make them good. They can be put into boiling water and boiled, if the water is all poured off as soon as the potatoes are done, and the kettle put back on the stove with the cover off and allowed to dry. As soon as done, either from boiling or steaming, they should be partially pried open with a fork, so the steam from the inside can escape, then placed in a dish, and hot gravy poured over them. If the vegetable dishes have covers, get one especially for potatoes without a cover, else leave off what you have, for they must not be allowed to steam themselves after they are cooked. If there is no other nice gravy, one can be made of a lump of butter the size of an egg, heated, and a teacup of milk. This will be sufficient gravy for a quart dish of new potatoes; none other should be served with the gravy over them.

After the potatoes are done growing, the skiu is tight on them, and they shonld be washed and steamed, or boiled, like the growing ones, but with the skin uncut. If they are good, and cooked quick, they will burst as soon as done. By the first of January, and all the time thereafter, they are best mashed before serving. If peeled for this before cooking, a very thin peeling only should be taken off, for the best of the potato is just next to the skin, and if boiled after being peeled, this best part is lost in the water. They should be steamed if possible. When done they must be peeled, and mashed quickly, leaving no lumps. As each one is peeled, lay it in a tin pail, or other deep vessel with perpendicular sides for mashing, and break or pry open, but not cut, each one for the escape of steam, while the rest are being peeled. Then if nothing better can be had, and not much better is needed, a fork should be used to beat them against the sides of the pail. Beat briskly until no lumps can be seen. Add salt and rich cream. Turn out in the dish in flakes, leaving the surface to arrange itself; and they are ready for serving. They will be found far more palatable after this treament than when mashed with a wooden maul, and butter added, then smoothed down on the dish, stopping up all the vents for steam to escape. They become waxy after this last treatment, like butter after being worked with the hand in warm weather.

Cold potatoes to be warmed over for breakfast must be sliced thin, and pnt into hot fat, without a cover over them and salted. They will fry a nice brown in this way, or if not wanted brown, cream can be added and allowed to boil up once.—*Maine Farmer.*

WELSH RABBIT.—In answer to a correspondent we gave a recipe for making Welsh rabbit some few weeks since. Here is another: Olivia writes: "The following recipe for Welsh rarebit I can guarantee as an old English one. It can best be made in a chafing dish, except the indispensable toast, which must be done, of course, before hot coals: Take a good slice of rather new cheese, say one-half pound, cut it into thin chips, do the same with one-eighth of pound of Gruyere cheese. Have yonr chafing-dish hot, with one-eighth of a pound of fresh butter molted, and stir in the cheese, stirring hard. Add a salt-spoonful of dry mustard, a claret glass full of good ale, or the same quantity of port wine. Pour it hot over the toast."

IMPROVING SPOILED BUTTER.—An excellent process intended to improve spoiled butter was patented in 1859, and therefore expires in about a year hence. It is founded on the fact that the butter in barrels spoils first and mostly from the outside; the hoops and staves are therefore removed from the spoiled butter, it is surrounded with a bag, and the whole buried in charcoal contained in a large barrel or any other suitable receptacle. The well known and wonderful absorbent power of the charcoal for odors removes all strong flavor from the butter, and soon gives it the appearance of a fresh article, saleable in the market at a price far in advance of that which rancid butter brings.

To clean a brown porcelain kettle, boil peeled potatoes in it. The porcelain will be rendered nearly as white as when new.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week.	1 month.	3 months.	1 year
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Prompt Subscriptions.

We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO

Saturday, January 29, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The New Grange Headquarters; The RURAL PRESS as a Means of Advancement, 65. The Economy of Shelter; Eucalyptus Wood, 72. Haw's Road Scraper; Bags; Editorial Notes, 73. New Books; Patents and Inventions; General News Items, 75.

ILLUSTRATIONS.—Grangers' Building, Corner California snd Davis Sts., San Francisco, 65. Haw's Road Scraper, 73.

CORRESPONDENCE.—English Agricultural Progress; Plowing Match; Sheep Corral; Yellow Rareripe, 66.

HORTICULTURE.—Orchard Culture; Cherry Culture—No. 1, 66-67.

POULTRY YARD.—Cheap Poultry Houses; Experience with Fowls; A Disease Most Common in California; Pekin Ducks; Setting Eggs, 67.

SHEEP AND WOOL.—Facts About Angoras, 67.

THE HORSE.—The California Horse, 67-78.

PATRONS OF HUSBANDRY.—Grangers' Bank of California; The Farmers' Insurance Association; The Value of the RURAL PRESS; Grange Notes; From the Granges; Election of Officers; In Memoriam, 68-69.

AGRICULTURAL NOTES from various counties in California, Oregon, Nevada and Washington Territory, 69-75.

HOME CIRCLE.—My School Days (Poetry); Farmers' Wives—Another Picture; House Building; The Best Food; Tapestry; How to Succeed; Frankness in Love; Babies; Co-operation of the Wife; How Yankee Potatoes do in England; My Mother; Lived it Down, 70. The Burdens of Life; The Death Kiss, 71.

YOUNG FOLKS' COLUMN.—Children and Their Homes; A Word for the Boys, 71.

GOOD HEALTH.—Responsibility of Housekeepers; Eyesight of Engine Drivers, 71.

DOMESTIC ECONOMY.—Cooking Potatoes; Welsh Rabbit; Improving Spoiled Butter, 71.

QUERIES AND REPLIES.—The Hungarian Prune; Roofs Destroyed; Vinegar from Wine; Machines for Tide Lands; Aughinhaugh Blackberry; Moles, 72-73.

THE VINEYARD.—Interesting Experience with Phylloxera, 74.

USEFUL INFORMATION.—Rising in the World; Condensed Beer—How Made; Utilizing Cinder Piles; Something New in Piano Construction; Calming the Waves; A New Paper Process, 74.

NEW ADVERTISEMENTS.

Straw Burning Engines, Marcus C. Hawley & Co., San Francisco; Seed Catalogue, Jas. H. Gregory, Marblehead, Mass.; Waters' Improved Tree Pruner, E. S. Lee, Rochester, N. Y.

The Week.

The week has been marked by severe and wide reaching storms. Snow has fallen where snow has been unknown for a score of years. Pelting rain and hail have driven men and beasts to whatever available shelter lay within their reach. Farm work has generally stood still, and farmers are now looking for pleasant days.

It is a fine season of the year for reading and for storing the mind with useful information and hints for future practice. We believe our columns this week furnish the matter from which they may be drawn. In our different departments will be found a great variety of topics of interest. The RURAL PRESS this week is peculiarly rich in contributions from observant and practical correspondents, and we commend their writing to all our readers.

THE Pope has regained his usual health and will give audiences the coming week.

A CATEGORICAL denial is given to the recent rumor that France is increasing her armament.

The Economy of Shelter.

If there be any thought pressed home in the mind by the action of the elements during the last week, it must be of the comforts and joys of shelter. It is almost a pleasure to hear the storm beat upon the window or the cold rain patter on the roof if there be a shining fire before the listener, or warm blankets over him. It makes a man happy and contented to feel that his industry has raised a barrier which will protect him, and all that are his, from the driving storm.

But there are other thoughts which should follow in the mind of the farmer. If his cows are shivering before the chilling blast; if his sheep are protected only by some overhanging ledge; if his hogs have no means of saving for him the valuable fat which the cold compels the animal to draw upon to save its life, then he should ponder well the influence which such wet cold days as those we have lately experienced, will have upon the result of his season's work. We do not intend to enlarge upon the maxim that a merciful man is mercifnl to his beast; rather would we show that by extending protectiou to his beasts in times of chill and chilling dampness, the merciful man is merciful to himself, to his purse, to his practical and tangible success.

It is proven beyond controversy, that the heat necessary to animal life is maintained by the combustion of the material which is furnished in the food. Any surplus which may be assimilated by the animal economy, beyond the amount needed to maintain its life, is employed in building up animal structure or fabricating animal products. For example, the milch cow uses a certain amount of her food to maintain her life and gives her owner the surplus in milk; the ox maintains his life and gives his owner the surplus in work or in fat, juicy beef as the owner desires. Now, the more food material there is required to maintain the animal life, the less surplus there will be to yield the product in which lies the owner's profit. The result is, then, that all conditions which make it difficult to maintain the animal heat and life, reduce the productiveness of the animal. One condition is cold and exposure to intemperate influences. The man who dines comfortably on meat and vegetables in a temperate clime, makes his Arctic lunch of train oil and candles when he goes out to hunt for the pole. It is not different with the animal when days of chilling storms come upon it where there is no protection within its reach. Its whole energy is required to fan the flame of life within. It not only puts a check upon storing up a surplus, but, failing of proper warming food, it draws upon its own substance. It weakens, and, in extreme cases, perishes before the murderous weather from which it has no refuge. What stock grower can rest easily at his fireside, while such agency is at work unbindered in his flocks or herds, sapping the foundations of his success by decreasing the legitimate returns from his business? We hear now and then that some of our California farmers generally make allowance in their estimate for a certain number of animals being killed for want of shelter. It would pay well rather to invest the money which such a loss represents, in proper buildings to wipe it out. Let no one think that the actual number of cattle which die measures the loss. The effect is sure to work loss also upon those which survive. It arrests the growth. It gives the system of the strongest a check and shock which it takes days of comfortable feeding to overcome. It is an absolute waste of productive force which is never regained.

This is not a matter of theory, although it appeals to the reason of every thinking man. There are experiments on record which show the economy of shelter most clearly. We do not take the records of the farmers of the Eastern States, although the contrast between shelter and and no shelter in that rigorous climate would show a wider margin in favor of protection. The English climate is more analagous to our own, and this is the experience there: The same number of cattle were housed and placed in open yards and the food consumed by each group carefully weighed and valued. It was proved that the cattle in the open air consumed a food value of 7s 11d per week, and those under shelter consumed 6s 4¼d per week. In round numbers it cost 1s 7d more each week to keep an animal exposed to the weather than to house it. When the weighing of animals was made, to determine what use was made of the food, it was found that the greatest profit was derived from the investment of food value in the housed animals, and the least by those exposed to the weather. Similar experiments were made in feeding sheep and the same results were obtained.

The evil effect of chill and discomfort upon dairy cows is even more marked than upon fatting animals. The yield of milk depends very much upon the disposition of the animal. Cows driven into a corral for milking, standing ankle deep in cold mud and exposed to a cold driving storm, will not give down their milk as they will if milked beneath a shelter where comfort induces quiet and docility. Restless, uneasy cows in a corral, starting off before the milk is nearly drawn to be chased from place to place by drenched and angry milkers—this is not a profitable picture for the dairyman. Clean milking is impossible, and where the milking is not complete the cow never does her best deeds at the pail, and never gives her owner all the profit he might gain if he would treat her better.

There must be a better care of animals practiced on this coast before our farmers reach the full profits from their business. There must be more attention paid to the economies of production. The old days of extravagant management, which gave a large sheet to the profit and loss account must give way, because our agriculture is becoming each year reduced to smaller margins through the extent of production and the increased value of our lands. We must meet the new conditions by the introduction of better system, the stoppage of wastes and the employment of better commercial principles. There are a hundred ways in which these reforms can be applied to our agriculture, and we shall urge them upon our readers as each seems timely and appropriate. Now, in memory of the dark, cold nights and dismal days through which we have lately passed, let each one for himself study the economy of shelter.

Eucalyptus Wood.

We have been much interested during the past week in the samples of Australian production and resources which Hon. Angus Mackey has on exhibition at the *Farmer* reading room, in this city. Mr. Mackey is on his way to the Centennial as commissioner from Queensland, and has unpacked his exhibition for a brief time in this city. We were especially interested in the specimens of eucalyptus wood, because now that there is such an extensive planting of the tree in this State, it becomes highly important to know of what value the wood will be when our fields of young trees rise to the dignity of forests. It may not be for this generation to profit largely from the material of the trees' growth, except for firing, because it will be years before keels of ships can be laid with California grown eucalyptus as to-day in Australia. The specimens of wood which Mr. Mackey exhibits are of surprising quality to one who thinks at first only of the quick growth of the tree and reasons that a quick growth must be a soft growth. He has billets of wood which are hard and heavy as the heavy hard woods of the primeval forests of the East, and which must have come from timbers stanch and true as those which stretched above the heads of ancient English knights in banquet halls, or ribbed the ships which carried brave explorers to our Eastern shores.

It will be of much interest to our gum tree growers to know some of the uses and qualities of the wood in the region where it has reached its best estate. In Australia ship builders get keels of blue gum timber 120 feet long; they also use it extensively for planking and other parts of the ship. It is considered superior to American rock elm. A test of strength made between some blue gum, English oak and Indian teak, showed that the blue gum carried fourteen pounds weight more than the oak and seventeen pounds four ounces more than teak upon the square inch. It is extensively used by carpenters for all kinds of out-door work, for fence rails, shafts and spokes of drays, and a variety of other purposes. For railroad sleepers it lasts about nine years. The wood is of a yellowish grey tint, with a close, straight grain.

Nor is the red gum tree wood of less value and utility. The specimens shown by Mr. Mackey show its qualities clearly. Baron Von Mueller gives the following careful description of the wood: It is a hard, dense wood with a handsome curly, but rather short grain. It is almost entirely free from the tendency to longitudinal shrinkage which is the invariable characteristic of all the other eucalyptii. It is of extraordinary endurance under ground, and is, therefore, highly valued for fence posts, piles and railway sleepers. It is extensively used by shipbuilders for main sterns, stern posts, inner posts, dead wood, floor timbers, futtocks, transomes, knight heads, hawse pieces, cant, stern, quarter, and fashion timber, windlass, bow rails, etc. It should be steamed before it is worked for planking. Next to the jarrah, from Western Australia, it is the best wood for resisting the attacks of the sea worms and white ants. Its possible uses are almost too various for enumeration, as an instence of which it may be mentioned that it is used with great advantage and economy for the bearings of machinery, the cost being almost nominal as compared with brass, whilst the material is equally serviceable and almost indestructible.

The iron bark gum is another tree which is now being extensively introduced in this State. In Australia it attains a hight of 100 feet and affords a valuable timber possessing great strength and hardness. It is largely employed by wagon builders for wheels, poles, etc.; by ship builders for top sides, tree nails, rudder stock, belaying pins, etc.; and is also used by turners for rough work. It is considered the strongest wood in the colony, and is extensively used in underground mining work.

As we said above, these facts are of great importance to the eucalyptus growers of this State. They are the surety of the valuable inheritance which they are preparing for their children, and the foundation which they are laying for the future greatness of the State.

QUERIES AND REPLIES.

The Hungarian Prune.

MESSRS. EDITORS:—I see in the last issue of the PRESS that one of your readers makes some inquiries about the Hungarian prune. Having had about six years' experience in growing that fruit, growing both the fruit for market, and the trees in the nursery for sale, we think we can answer the questions. We feel more free to do so because you request those having had practical experience in that direction to make known to the readers of the PRESS the result of their experience. Practical experience is what the farmers want to hear.

1st. The tree is a vigorous, upright and healthy grower. 2d. It is very productive and does not, like the German prune, shed its fruit while the fruit is young. 3d. It is a free-stone, not quite so free as the Washington and some other plums, but plenty free for drying and marketing, too. 4th. The color is a beautiful deep red, with an abundance of bloom; it is among the very largest of the plums. It has two advantages, you can sell it in its fresh state or you can dry it. It is excellent for both. 5th. I know of no effectual remedy for the German prune tree shedding its young fruit. Soil and location have much to do with that. The best remedy we can suggest is to use Mirobolan plums for stocks, and plant on rather heavy soil, not adobe, but soil that is somewhat clayey, cultivate thoroughly, there is much in that word, head low down, say eighteen inches, and thin out well in pruning, and the evil will be mitigated to a considerable extent. The German prune generally pays well where they grow a good crop. In these days of "prune excitement," we would say to the readers of the PRESS, that we know of nothing better, (of the plum or prune kind), to plant than the Hungarian prune, besides its being a good fruit for the home market and drying, it is an excellent fruit for shipping East, its large and very handsome appearance will always sell it in any Eastern market. W. W. S.

Brown's Valley, near Napa City, Jan. 17th.

We thank our correspondent for his explicit answers. Practical men can aid each other greatly through our columns by both asking and answering questions. Let us have the light of experience always.—EDS. PRESS.

Roofs Destroyed.

MESSRS. EDITORS:—I have an orchard of four hundred trees, part of them eighteen years old; the oldest of them are attacked with a disease that I can't account for. The bark under the surface of the ground softens, becomes warty and porous, then rots off all round, sometimes before you know anything is the matter with the tree. If you, or any of the readers of the PRESS, can give the cause and cure of this trouble through your valuable paper, I will be very thankful. E. B. BOLE.

Uncle Sam, Cal. Jan., 11th.

We cannot tell what is the matter with the trees without knowing more of the kind of tree, condition of the soil, etc. It may, however, be stated as a general remark, that when roots rot off this way, that it most frequently is owing to the excess of water lying in the soil. Roots can be drowned and trees killed in this way. The remedy would be good drainage.

It sometimes happens that the roots of trees are killed by coming in contact with a layer of alkali which underlies much of our soil. When the roots strike this the trees die. Cases of this kind are frequent. We do not say that either of these causes are responsible for our querist's trouble, but in looking about for the cause he had better examine to see whether either of them exist in his case. Has any reader of the PRESS had experience like that mentioned?

Vinegar from Wine.

MESSRS. EDITORS:—What has become of the *Philaris Americana ell.* the seed of which was distributed from the PRESS office a little more than a year ago? I received a packet of it, sowed according to instructions, but it never came up. What has been the success of others?

(2.) How can wine be converted into vinegar in a small way for one's own use?

Sacramento, Cal. SUBSCRIBER.

(1.) We have not received any reports of the seed to which our querist alludes. What has been the experience of others who sowed it?

(2.) Concerning the manufacture of wine into vinegar we quote from Dussance's "Treatise on the Manufacture of Vinegar," as follows: Wine contains naturally all that is necessary for its transformation into vinegar. Wine not well corked is converted into vinegar, and the residuum of grapes, which rises at the top of the fermenting vats, is often acidified. The vinegar exhausted from it is used in house-holds. Farmers and vineyard proprietors keep in their cellars several barrels of about twenty or twenty-five gallons capacity, in which they deposit the lees of their wines and then add the remain of wines in bottles, in a word, all the wine unfit to drink. They follow no regular operation and draw off the vinegar every time

they want it; and while the cellars are constantly at a temperatnre of fifty deg., the vinegar thus obtained is very strong. This is the only process used in the south of France and Spain, where thero are no vinegar factories.

The method followed in several northern cities of France is very simple. Long barrels are constructed, the circumference of which decreases toward each end, forming a kind of doublo truncated cone. These barrels have a capacity varying from fifteen to twenty-five gallons. They are placed on two parallel bars, united together by strong posts, and so fixed as to make a quarter of a circle. This kind of apparatus is from six and one-half to seven feet long. Place one barrel on each of these apparatuses; fill it to three-fourths of its capacity with two parts of wine and one of vinegar. Close the barrel and draw it front, so as to bring it to one end of the curve, then push it, and it will roll from one end to the other and finally stop at the lower place. Repeat the operation three or four times every twenty-four hours, for five or six days. After this leave the barrels to rest for the same length of time, and descant two-thirds of the vinegar into smaller barrels.

We make these quotations to show what has been done in the old wine countries. Will some reader give us a better method?

Machines for Tide Lands.

Messrs. Editors:—Our Swinomish tide lands are very productive where dyked and put under cultivation. Our oats grow from four to seven feet high, and yield from sixty to one hundred and twenty bushels per acre. This has been a very wet fall, and a great deal of grain was wasted, still the average per acre of oats and barley saved must have been over sixty bushels to the acre. Some of our land is quite peaty and soft, and the oat straw grows from four to seven feet high. Our climate is rather damp. Too much so, I think, to use a header, though some say not. We are using the Buckeye self rake reaper, and many seem satisfied with it. I would like a self rake reaper with larger and broader wheels, especially the outer wheel under the end of the cutter bar, so the machine would run easier, and turn more readily at the corner. I would also like to be able to cut high or low, (the higher the better,) and be able to change the hight of cut easily and quickly. Is there such a machine? I would prefer a combined machine.

In your issue of November 27th, an agricultural note headed. "Breaking Reclaimed Salt Marsh," refers to Dalton's obliquely revolving donble cylinder harrow. What kind of a harrow is it, where can it be had and at what price? Onr land is covered with salt grass and pickle weed, and the roots are very tough. It plows hard and does not harrow to pieces readily with a common steel tooth harrow. When it is peaty it dries up and does not rot readily, and so leaves the land rough. The soil is very light. R. E. Whitney.

La Conner, Whatcom county, W. T.

(1.) Marcus C. Hawley & Co., of this city, are agents for the sale of the reaper mentioned and they inform us that they are making inquiry at the East for the manufacture of broader wheels for work on the style of ground which our correspondent describes. If there are any machines especially adapted to the other reqnirements noted, will the agents give him the information requested?

(2.) Messrs. Hawley & Co. are also agents for the Dalton harrow. It is especially adapted to work on salt marsh land, and is highly recommended for that purpose.

Poland-Chinas.

Messrs. Editors:—Be kind enough to inform me where the Poland-China hog can be had, and the price. O. P. Robbins.

Los Angeles, Jan. 17th.

We printed a request like this a few weeks since and received no reply. Will some breeder write to Mr. Robbins, or furnish the information in our advertising columns?

Moles.

Messrs. Editors:—Please give your readers an article on how to destroy the moles; it was a question asked you by somebody last summer which I think has never been fully answered. Every one of your subscribers is deeply interested in this. H. Kier.

Cloverdale, Jan. 6th.

It has been observed that moles move generally for an hour or two abont sunrise, again about eleven o'clock and again about sundown. By watching where they are working, and which way, they can be thrown out by shoveling and killed. They are at these times near the surface. We are informed by a lady of Oakland that she succeeded in destroying these pests by cutting up liver and meat fine, powdering it with strychnine, and putting i where the moles can get at it. We should be pleased to hear from any reador who has a successful method.

Books on Bees.

Messrs. Editors:—I am desirous of gaining all the information I can upon the culture and management of bees, with the intention of making it a stndy and bnsiness. Will you or some of your readers give me the name of some work containing such information?

A Subscriber.

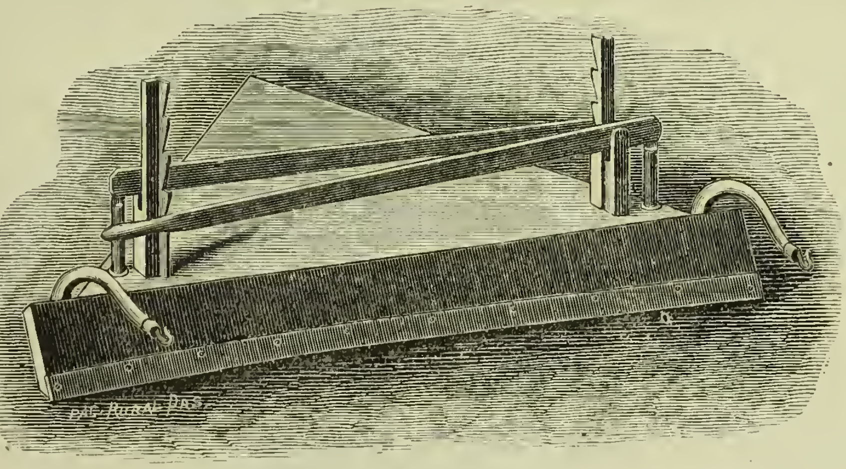
The *Beekeepers' Magazine*, advertised in the Rural Press of January 8th, is worthy of patronage. In addition we mention "Quinby's Beekeeping," price, $1.50; "Langstroth on the Honey Bee," price, $2. These books will be sent post paid on receipt of price, by A. Roman & Co., San Francisco.

Aughinbaugh Blackberry.

A correspondent asks for information concerning the trustworthy character of the Aughinbaugh blackberry. We have never grown any. We can testify to its fine flavor and early bearing. If any one knows any facts relating to it of public interest, they will be inserted in the Press over any trustworthy signature.

Haw's Road Scraper.

We illustrate on this page a handy, simple road scraper, invented by R. A. Haw, of Eureka, Humboldt county, California. It is intended principally for work on roads, but may be used for leveling off uneven ground, scraping side hills and work of like character. It has been in use in various parts of Humboldt county for a year or more past, and the inventor has numerous testimonials from road overseers, farmers and others as to its efficiency.



HAW'S ROAD SCRAPER.

The machine, as will be seen by the engraving, is made of wood, and weighs about 400 pounds. The scraper portion has a width of twelve feet, is set at an incline from the frame work and is shod with steel. The main weight of the machine rests on a pair of castor wheels to which are attached levers to raise or depress the scraper as circumstances require. The portion in the rear of the scraper itself is V-shaped and made of strong timber.

The machine is drawn by two teams. From the lower inside corners of the scraper a curved beam passes up and over the top to the front at each corner, and to these beams the teams are attached. The driver of one team rides on the scraper to operate the levers to suit the varying requirements of the ground. The angle at which the scraper is to be drawn is regulated entirely by the teams. If it is to be drawn at an angle so as to throw the dirt to one side, one team is slowed up so that the other draws the corner ahead a little and then both teams are driven at the same spood. The lower edge of the scraper is curved slightly so as to give a rounded surface to the road.

The machine is perfectly adapted for the purposes for which it is designed. It will fill up depressions and take down elevations or lumps on the road, giving a nniform surface. It is much lighter than ordinary implements of the kind, and requires few horses to do the work. Four horsos are needed to work it properly. The machine is so constructed as to work on the edge of a ditch or gulch, and drag the dirt from the edge to the middle of the road, without throwing any of it into the ditch. With it also, work can be done close up to a bank or cliff without the team being in the way. On the edge of a ditch, the teams are in no danger, as they draw the scraper obliquely after them, so that it scrapes even over the edge and draws the dirt into the road.

The raising and depressing levers are arranged by means of notches, so as to keep the scraper in any position required with reference to hight. The inventor shows ns many testimonials as to the efficiency of the machine, and informs ns that all who have used it are perfectly satisfied with its operations and give it high praiso. It is essentially a labor-saving maohine—doing away with the use of pick and shovel in repairing roads; and, at the same time, doing the work quicker, cheaper and better. Those desiring further information can address the inventor, care of Dewey & Co., 224 Sansome street.

Bags.

So far as reaping the rewards of the market is concerned, the man who has grain and no bags is but little better off than he who has bags and no grain. For under present arrangements for shipping grain the greater part of it must go in bags and the farmer must buy them. There are several conditions which it will be well for grain growers to consider about these bags.

There is promise of an unusual grain crop in all the growing sections of the State. The abundant rainfall has quickened the productive nerve and strengthened the productive arm. Places which have been waste and barren give promise of old time fertility. Fields upon which our farmers have at times been brought almost to starvation, promise this year to return a splendid harvest. These facts must exert an influence upon the demand for bagging material. It is true that much yet depends upon the deeds of the clonds in the coming spring time, but in many parts the harvest is considered assured. It seems only a question between abundance and more abundance. Either hight of good fortune must be bagged; either horn of the happy dilemma must be covered with a gunny sack. Happy will be he who has his sacks ready for the need.

The business during the past year has not been over profitable to the bag merchants. The decrease in this year's wheat yield left a stock on hand more than is usnal at the beginning of a new year. In view of these facts it would naturally be the policy of importers to restrict their orders lest they should not make a better estimate than they made last year. When the sure time comes, if the great yield comes with it, it will be a time also when a cramp wonld result most advantageously to those who have bags for sale and quite otherwise to those who have bags to buy.

The new phase of the bag question which is contemplated by the bill of Mr. Luttrell for the placing of bags and bag cloth on the free list, is one which is most in thought just at this time. It is a measure which if successful would relieve our grain growers from the payment of more than a million dollars of duty. It is an important matter and we hope the government will lift the burden. We notice that onr farmers are showing their mind upon the subject in sturdy resolutions. But even if the bill becomes a law, it would have but little effect for this harvest unless it pass right speedily; and the advantage which would be gained through a repeal of the duty would be overbalanced by the increased price from a shortage in supply if the harvest should be as now anticipated.

Our grain growing readers should study the bag question for themselves now while the price is at a low mark and decide according to the best judgment which they can form what are the business probabilities involved. In order to afford all the light we can concerning the trade of last year we quote from the S. F. *Journal of Commerce* a review of the business in bags and bagging for 1875:

Imports, 1874	16,052,883
Imports, 1875	12,550,000
Decline, 1875	3,502,883

Imports, consumption, etc., for the past year has been as follows:

	Bags.
Stock Jan. 1st, 1875	5,750,000
Imports	12,550,000
Oakland factory	3,000,000
Total	21,300,000
Consumption	13,250,000
Stock Dec. 1st, 1875	7,050 000
Stock Jan. 1st, 1876	7,050 000
Stock Jan. 1st, 1875	5 750,000
Excess Jan. 1st 1876	1,300,000

The figures here given would without further remark tell the story of the bag trade during the year, that it is now very unfavorable to importers. The same story is told by the comparative prices at the closo of both years, which are for 1874, 11½@12c; for 1875, 9@9¾c; thns showing a decline of 2¼@2½c on last year's price. The cause of this may be briefly stated as over-importation, and a diminished consumptive demand. That for California and Oregon in 1874, was 16,802,883, whereas during the year just closed it was only 13,250,000, showing a decline of 3,552,883 in one year. The partial failure of the wheat crop is of course responsible for this. The year opened with the price firm at 11½@12c. at which it kept up till March. Heavy contracts to arrive were made at these figures, as everything foreboded an unusually large crop. At that time, however, unfavorable reports began to come forward from the country, and the price dropped to 11c@11½c. These reports continuing, there was a further decline to 11c, and then again another to 10½c@10¾c, by the first of July. Up to this time the bulk of the imports of the year arrived, and it was thought that there would be no further decline, but further arrivals brought it down to 10c, then to 9½c, and finally to 9c cash, at which it now stands. The outlook for the coming year is, however, encouraging. We shall in all probability need 18,000,000 bags, taking Oregon into account, and were it not that the need of the season can never be really told till April or May, and that great numbers of second hand bags will be returned from England after the wheat which they carried from this city has been sold, there would be needed the importation of the equivalent of 10,000,000 in bags and burlaps to satisfy the demand of the year. Dundee, too, is about to have a competitor in Calcutta, and arrangements are being made to import considerable supply from that city, as it is stated that both the cloth and the bags can be imported much more cheaply than from Dundee. The manufacture of bags from imported burlaps was carried on to a greater extent during the past year than ever before, and not less than 7,000,000 were made by Detrick & Co., Neville & Co., Hanna & Co., and other makers. The Oakland company turned ont 1,500,000 during the season.

Editorial Notes.

We notice that our English friends are getting excited on the large pear subject. The London *Agricultural Gazette* glows over the description of a plate of six pears, from the Island of Jersey, which weighed fourteen pounds six ounces, (the whole six), and which are now being offered for sale, at £30 a dozen. It is a strange world. One hundred and fifty dollars for a dozen pears of average weight—two and a half pounds each! Why, such small fruit are only fair pickling size. We had a California pear in hand a short time since, which weighed four pounds two ounces. Doubtless, some of our orchardists would like to make indefinite contracts at English figures.

A possible use for the straw is proposed by a genius in one of the prairie States. He has invented a machine which presses hay, straw and other coarse material into compact bricks, 18 in. by 24 in. in size. It works so rapidly that enough bricks for a house can be run out in a day, provided the straw stack is big enough. It will not burn; in fact, so they say, a wooden house will burn more readily. After a man has made bricks enough for his new house, he can work up some more of the straw into fencing material, and with the rest he can build out-houses, corrals—in fact, almost anything. We have heard of "men of straw," in politics; why not houses of straw on the farm?

It seems that we are to have a little light on the result of one of the experiments with cotton cultnre in this State. The Strong brothers, who made the first trial, have removed from California and returned to the South, whence they came. Although losing money by his California experiment, Col. Strong writes as follows to a gentleman in Visalia: "I am satisfied with my California life, although profitless in a pecuniary sense. It is worth all it cost me in the lessons I learned. When I tell you that our best cotton may be laid down in San Francisco at a cost of fifteen cents per pound, currency, you will readily percoive that a further prosecution of the business would have resulted only in disaster. The way out of all this I cannot see—nothing but a radical change in the farming of the country can relieve the people—they must diversify production." We cannot see clearly what the idea conveyed in this sentence is. Perhaps it is that so long as the Southern cotton can be put down in San Francisco at fifteen cents per pound, it will not pay to grow California cotton, and that the South must diversify her productions, create a corner in cotton, advance the price, and then California can grow her own. If this is needed, we say to the South, diversify—diversify at once!

In the Bank of California suit, brought by tho Wormser brothers, the injunction to prevent a sale of the delinquent stock has been denied and the temporary restraining order dissolved.

The *City of Tokio* lost two blades of her propellor in her last trip, but she carried extra blades, which were put on while she was in Japan.

A newspaper has heen started in Paris for the purpose of furnishing all possible information about the Centennial celebration.

The Iowa Senate has adopted the joint resolution for an amendment to the constitution abolishing the grand jury system.

The storm of last Saturday and Sunday reached all over the State.

The Vineyard.

Interesting Experience with Phylloxera.

We find in the latest issne of *Colman's Rural World* an interesting letter conceruing the phylloxera, with comments by the wel[l] known entomologist Charles V. Riley. We reprodnce them for our readers :

Since reading what you hsve to say abont phylloxera, I have been investigating matters for myself, and find "that's what's the matter." Nurserymen have better opportunities to observe the effects than others, on account of having to dig up vines. I dug some two thousand three-year old vines this fall, and I found the little villains by the million on the roots—not one on the foliage. There were some fifteen or twenty varieties, and every variety was more or less intested. I should say the vinifera the most, cordifolia the next, labrusca next, and æstivalis the least. I found a great deal of differeuce in varieties of the same species. I think I am safe in saying, that the vines most infested are those having been longest under cultivation. This is so with labrusca—at least, Catawba and Hartford Prolific, and I fear Concord now, are examples ; but there is certainly a great deal of difference in vines of the same botanical species. Generally the strongest and most vigorous growers are more exempt, and I fancy the coarsest, most foxy fruited, next But this may be hut faucy. Certain it is, that Creveling had more than Northern Muscadine ; but, then, there is Hartford—coarse enough for the most fastidious, and it is the most infested (1). Then the hybrids with vinifera, and those with cordifolia, seem worse than those with labrusca vines. Othello, for instance, a year ago lost all its foliage, and the fruit did not ripen. Croton and Senasqua soon lose all vigor apparently. The Alvey seemed most exempt of any vines in my nursery, and I have some seedling hybrids between Alvey and Eumelan that grow as vigorously and seem as exempt as Alvey. One of them is earlier than any of the old kinds, and one later received several first premiums the past season. How is this that so many nurserymen claim to he exempt from this pest? It is but pretense. Some of the very ones who claim to be exempt, sent me vines last spring with plenty of phylloxera on them. Can you give me any solution which you have tried, wherein I can soak the roots, and set out on an island, to see if I cannot grow and propagate vines free from the pest. They seem to destroy the roots of some sorts, while young, as fast as they grow—for instance the Walter. What do you think of trying cuttings on a small island in the river recently formed, no old or wild vines on it? I have examined several wild vines, and find the pest there on them. It is doubtful if there are vines exempt anywhere. Still, it would be a great benefit if they could be kept off for a year or two, until they get a start ; for I find that the most varieties outgrow the trouble, if kept vigorous by good soil and manure(2). I found in the bed I dug that the vines that happened to be planted deepest were far more exempt than the shallow planted. I can tell a vine that is badly infested by the looks of it. The roots seem old and moldy, and smell like rotten wood, and the whole vine looks sickly and lacks vigor. As so many nurserymeu claim to he exempt from this pest, yon will please withhold my name and locality from the public ; but you are welcome to use these facts, if they are of service to you, I say this only in self-defence; if others wonld tell the truth, I should be glad to give these and all facts I may observe publicity ; but you can readily see wherein I would suffer if I should publicly proclaim I have the pest(3). We have gone on with them a great while and made steady progress, and we can do so in the future. True, we could do better without them ; but there is no need of a great scare. I should take pleasure in giving you any turther facts if you want them.

Comments by Mr. Riley.

(1.) Hartford is one of those vines which, like Clinton, always shows plenty of nodosities, but suffers less than many other varieties that appear less affected. It makes many fibrous roots, which are the only roots that show the swellings, and its root texture is such that, instead of such swellings rotting soon after the puncture of the insect, and thus destroying all the finer roots, they remain hard and retain the power of nourishing the vine a much longer time.

(2) A strong decoction of soapsnds and tobacco, used hot, as tor freeing young apple trees from root lice, is the best for dipping young vines from the nursery to free them from phylloxera ; but I cannot recommend it as of any very great benefit, nnless the vines are to he isolated and separated from iufested vineyards a distance of at least fifteen miles. The planting on an island in the river will effectually prevent the insect getting on to the vines by travelling over or under the ground ; but, unfortunately for us, the little pest has another mode of spreading, namely : in the winged female form.

(3) I am aware that this foolish tendency on the part of the nurserymen to shut their eyes to the fact of the existence of phylloxera on their vines, prevails to a great extent, under the false impression that the knowledge of the fact that they were troubled with the insect would injure their business. So it has been claimed by some writers that phylloxera does not exist in Georgia, and the statement has been heralded as a strong inducement for the French grape growers to procnre vines from that part of the country. Yet I have recently received from Mr. M. Cole, of Atlanta, Ga., good proof of its existence there. So some grape growers sround Sonoma, California, where the insect has obtained a foothold for two or three years past, under the same false policy have attempted to hush the fact, and have thns endangered the whole grape growing interest in California, wheress, by calling attention of the State authorities to the existence of the pest when first introduced and noticed, they might have stamped it out and prevented what now bids fair to prove a calamity. When our grape growers east of the Rocky monntains come to understand that the insect is generally distributed over the country, and that it will no more injnre some of our native varieties than it has done in the past, they will cease to be influenced hy any such narrow views.

Useful Information.

Rising in the World.

Experience continually oontradicts the notion that a poor young man cannot rise. If we look over the list of rich men we find that nearly all of them begau life worth little or nothing. To any person familiar with the millionaires of the United States a score of examp'es will occur. On the other hand the sons of rich men, who began life with the capital which so many poor young men covet, frequently die beggars. It would probably not be going too far to say that a large majority of such moneyed individuals either fail outright or gradually eat up the capital with which they commenced their career.

And the reason is plsin. Brought np in expensive habits, they spend entirely too much. Edncated with high notions of personal importance, they will not, as they phrase it, stoop to hard work. Is it astonishing, therefore, that they are passed in the race of life by others with less capital originally, but more energy, thrift, and industry? For these virtues, after all, are worth more than money. They make money, in fact. Nay, after it is made, they enable the possessor to keep it, which most rich men prouounce to be more difficult than the making. The young man who begins life with a resolution always to lay by part of his iucome is sure, even without extraordinary ability, gradually to acquire a sufficiency, especially as habits of economy, which the resolution renders necessary, will make that a competence for him which would be qnite insufficient for an extravagant person. It is really what we save, more than what we make, which leads us to fortune. He who enlarges his expenses as fast as his earnings increase must always be poor, no matter what his abilities. And content may he had on comparatively little. It is not in luxurious living that men find real happiness.—*Scientific American.*

Condensed Beer—How Made.—Mr. Lock wood describes, in the *Journal of the Society of Arts*, his patent solid or condensed beer. Beer is taken at its best condition; its alcohol is separated and ssved by a method of gentle distillation in *vacuo*, and the residue is condensed in a vacuum pan, like milk; when finished, it is enclosed in hermetically sealed packages, the alcohol first being added to it again, and acting as a preservative. The fermentation, which was present in the beer when it was taken, is suspended by the heating, and the condensed beer remains sound in this condition, apparently for any length of time, as some exists that has now been kept for nearly two years. When re-made by adding water, it is not wort, but real beer, having all its flavor and alcoholic strength, and lacking only effervescence, which can be quickly imparted by reviving the suspended fermentation for a short time in order to develop sufficient carbouic acid gas to give it the required briskness; or it is fit to drink immediately, if charged with carbonic acid gas, like ærated water.

Utilizing Cinder Piles.—Quite a business has sprung up at various points in the country in the working of the cinder piles of blast furnaces. For several years iron made in a cupola from cinder piles has been in use in Pittsburg, and we believe other localities, and is known as Buckeye iron. It is very close, hut gives good results in the puddling furnace, especially in mixtures with red short irons. Iron is being made on this plan at Cleveland, at Indianapolis, at Chicago and Cincinnati, and we understand in various other places. There is a vast amonnt of such waste in all our iron smelting districts; many thousands of tons have been used to fill up bogs and hollows, and to make roads, hut the amonnt yet within easy reach is still immense.

Something New in Piano Construction.—A German tailor at Des Moines has invented a curious sort of piauo, the hammer of which strikes bells instead of strings. There are in this piano sixty-six hells, varying from two inches to thirteen inches in diameter, all so adjusted that each bell shall give its perfect tone in response to the touch of the performer's hand on the key-board.

Calming the Waves.—The belief of sailors that rain calms the sea can be confirmed to some extent by pouring water from a watering-pot into a glass jar filled with water, upon which rests a layer of water colored hy some substance. This snperficial layer will be seen to send rings downward; each ring being set in motion by a drop of the water falling from the watering-pot, and which occupies its center. As in a storm it is only the superficial layer of water which is in motion, the sea would necessarily be calmed by any cause which forced this surface layer of sgitated liquid down into that which is at rest. But may not another cause be the retardation of the wind by passing through a thick bank of raindrops ?

A New Paper Process.—It is said that, by a new process recently patented by Eastern parties, it is proposed to manufacture wrapping papers out ot green grass or hay. The inventor claims that if grass is nsed, he can mske good paper without cooking the material, and the natural color of such paper will be dark brown—suitable for hardware trade, etc. By this process he claims a saving of five dollars per ton, in fuel alone. If hay is used, it will have to be cooked. and we infer the cost will be about the same as for straw paper.

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Butls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cat., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at tow rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cat., breeder of Jersey cattle. Has Jersey butls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cat. Thoroughbred also ¾ and ½ Cotswotd grade sheep.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spantsh Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cat. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE Jr., Napa, Cat. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

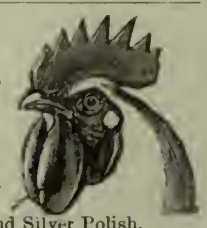
WILLIAM KNOWLES, P. O. Box 337, Oakland, Cal., has for sale Eggs for Hatching, carefully packed, from Brown Leghorns at $4 per doz. Houdans, White Leghorns and Buff Cochins at $3 per doz; two doz. for $5 Sent C. O. D. to any address.

Poultry.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.



Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns.
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for batching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,
San Francisco.

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine imported Australian, French and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,
433 California Street, S. F.
(Merchants' Exchange.)

SANBORN & BYRNES,

STAIR BUILDERS.

Mechanics' Mills, Mission Street.

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-bp

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated. bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—cost nearly $245,000. Will be kept First-class, at $2.00 per day, and less by the week or month.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. Rowe Elastic Truss Company, 609 Sacramento St., S. F

TRADE MARK.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

THOROUGHBRED JERSEY CATTLE.

FOR SALE, twelve butt calves of 1875—three yearling bulls—Also cows and heifers bred from the best imported stock. Address,

A. MAILLIARD,
San Rafael, Marin County, Cal.

CHAS. H. PHELPS,

ATTORNEY AT LAW,

306 PINE ST., N. W. Cor. Sansome, SAN FRANCISCO

☞ Especial attention given to cases involving Mining, Patent or Commercial Law.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesman's National Bank, N. Y.; Ellwangar & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Miscellaneous Notices.

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in ¼, ½, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the office.

OFFICE and DEPOT: 117 Pine Street, near Front. FACTORY: Cor. 4th & Townsend Sts.

3v9-eow-bp-1y SAN FRANCISCO, CAL.

THE ALDEN FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four tablespoonfuls to a washtub of water. For bathing, use one tablespoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.

Also, SULPHATE OF AMMONIA for chemical purpose, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and PURE LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

☞Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

eowbp

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Gooods, Cigars, Candies, Candied Fruits, Honey, Maccaroni, Crackers, Sugar, Soap, Boots, Etc,

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

B. K. CUMMINGS. 1858. H. H. BALSTON. 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-1y

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow. Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no cuttings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..$85 00	Extra Shares—No 1..... $3 00	Landsides for single Plows.. $2 50
No. 2 " " " " .. 90 00	" " No. 2..... 3 50	" " Gang Plows... 1 50

All kinds of casting done on short notice.

San Francisco Agents. FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

CANDLES.

MITCHELL'S

New York Candles

Full Weight and 14 ounce.

Will be found on comparison to be

Unequalled in Quality.

14 GMG OZ.

STEARIC ACID CANDLES

GEO. M. GRANT & CO.

PHILADELPHIA.

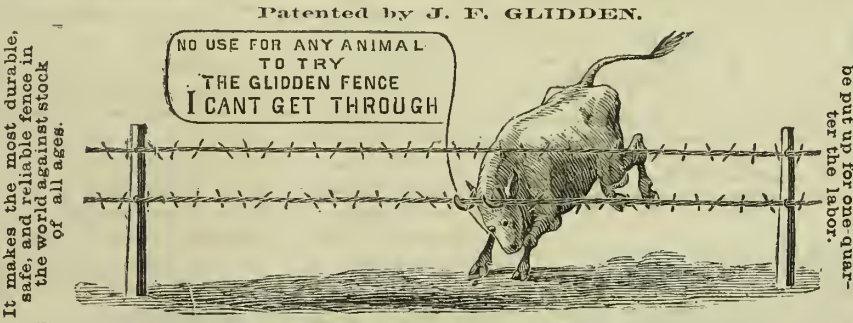
FOR SALE BY ALL THE LEADING JOBBERS.

Geo. M. Grant & Co., Agents. San Francisco.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.



It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

El Dorado, El Dorado Co., Ca

Lands and Homes for Sale.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord
J. VOLLMAR .....S. F.
J. D. BLANCHAR.....Napa
C. MITCHELL GRANT.....
J. REOENSBURGER.....S. F.
A. W. THOMPSON.Petaluma
F. A. KIMBALL....San Diego
I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street. S. F.

FRUIT RANCH FOR SALE.

Ten miles south-east of San Bernardino. Eighteen acres of vineyard. Ten acres of alfalfa. Several thousand young fruit trees. Abundance of water. Beautiful location and only five miles from the railroad. Terms easy. For particulars, address

WM. CRAIG, San Bernardino, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

California Farmers' Mutual Fire Insurance Association.

No. 6 Leidesdorff St., Rear of Grangers' Bank.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't
G. P. KELLOGG, Treasurer
I. G. STEELE.....San Mateo
A. WOLF.....Stockton
W. H. BAXTER.....S. F
J. C. MERRYFIELD, Dixon
A. B. NALLY....Santa Rosa
I. G. GARDNER...V. Pres't
A. W. THOMPSON....Att'y
CHAS. LAIRD,.....Salinas
A. D. LOGAN,.....Colusa
G. W. COLBY.....Butte Co
J. CRESSEY, ...Oakland
E. W. STEELE, S. L. Obispo
FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....	$3,026,378.00
TOTAL PREMIUMS.....	63,306.49
LOSSES PAID.....	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Stogleton, Thomas E. Snell, O. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

Dewey & Co. {224 SANSOME ST} Patent Agt's.

(Continued from Page 69.)

like the "thermal belt," now so fully recognized in Santa Clara valley, in which neither snow or frost falls. The formation of our valley is analogous, and, as we apprehend, experiments would soon demonstrate on its skirts the existence of a like belt. By the way, we see in the local papers that there is talk in Santa Clara county of planting lemon trees on a large scale within the "belt" spoken of. We throw out the suggestion for what it is worth. Anyhow, we are tired of the routine of wheat and barley and barley and wheat, and would gladly hail some effort to turn to account the varied qualities of our climate as well as soil.

PLUMAS.

The Ice Crop.—*Record-Union*, Jan. 18: From gentlemen who arrived in the city yesterday from the other side of the mountains we learn that the ice crop this season will be remarkably good, the ice which the Summit ice company is obtaining at Prosser creek being very clear and from eighteen to twenty inches in thickness. About 100 men are now engaged in securing and storing it; 5,000 tons are housed, and the desired quantity, 10,000 tons, will have been obtained by the close of the week. During the winter the cost to the company of keeping the ice field from being covered with snow has been very heavy, it having been necessary, during the heavy storms, to have as many as 150 men engaged with scrapers in removing the snow as fast as it fell.

SAN DIEGO.

Bee Prospects.—*World*, Jan. 15: A little talk with bee men enables us to hope that the season for this work is to be a very propitious one, as the colonies are reported as strong and vigorous, the feed promises to be abundant, and the bee up to this time, not merely feeding himself, but, in some places, storing some honey, as at Dr. Johnson's apiary, on the Sweetwater, where he has eighty colonies.

SANTA BARBARA.

The Lompoc Tract.—*Record*, Jan. 15: When we say that there will be 2,000 acres of hill and mesa land cultivated we believe we speak much within bounds, and no one would place the amount in the valley proper designed to be cultivated the present year at less than 7,000 acres, making a total of 9,000 acres. The area of the valley is, we believe, 13,000 acres, but owing to the dense undergrowth covering several thousand acres, which our people feel unable to remove the present year, much of the very best land will go uncultivated until another year. A glance at the probable yield of this productive area will give us some idea of what 20,000 acres, the total arable area of land upon the Lompoc property, will produce when brought under cultivation. Of the land cultivated this year, 4,000 acres will be planted to potatoes, the average product of which will not fall short of 150 sacks per acre; yielding 600,000 sacks, which in San Francisco will be worth at least $1.25 per sack or the aggregate sum of $750,000, and will afford 94 cargoes of 400 tons each, there being 37,500 tons. The estimated bean crop to be planted will amount to, and we believe will exceed, 2,000 acres. It is a very moderate yield 1,500 pounds per acre, and this amount will give us an aggregate of 1,500 tons, the avarage price for years being in San Francisco three cents per pound, yielding for our bean crop $90,000.

SANTA CLARA.

California Tobacco.—Our tobacco interest is to be represented at the Centennial. Last week the Consolidated Tobacco company shipped four pounds of the leaf to Philadelphia, raised from the finest Havana seed. The Gilroy *Advocate and Leader* states that this specimen is considered by experts a great triumph for the company. It was of last year's crop, well packed, and thought to be in every respect equal to the best tobacco that will be placed on exhibition. California has for some time occupied high rank in this department of agriculture. The cigars manufactured after the Culp process, like the wines of this State, have encountered more prejudice at home than abroad; but from what we can learn, there is an annual increase in their sale, the demand being always in excess of the supply, which is certainly very encouraging.

The Snow.—*Call*, Jan. 23: The unusual experience of a snow-storm was given to the people of Santa Clara valley and other places in the State, yesterday. At Gilroy rain began falling the night before, and continued till morning, at which time a quarter of an inch had fallen, after which showers continued during the day till 5 o'clock P. M., when it changed to snow, and for an hour the people found themselves surrounded by all the scenes of an Eastern winter. Snow covered the ground to the depth of half an inch, and the whole population, old as well as young, were out indulging in the rare luxury of snow-balling. At Santa Clara more snow fell than was ever known before, and the sides of the mountains were covered lower down than for years past. At San Jose it was snowing very hard at 7 o'clock last evening; the hills were covered and the air was very cold. Similar falls of snow were also experienced at Watsonville and Hollister. At Santa Cruz, also, the foothills are white, and the stage from the mountains, last night, was covered with two inches of snow.

SANTA CRUZ.

Pajaro Shipments.—*Pajaronian*, Jan. 13: We are indebted to A. Johnson, agent at the Pajaro depot, for the following interesting item: The amount of grain shipped from the Pajaro station, during the month of December, reaches the enormous figure of 1,105,382 pounds! From July 1st, to December 31st., 13,600 boxes of apples were shipped to various points, and two cars containing 900 boxes of pears were shipped by the Porter Bros., to Chicago, from the orchard of G. M. Bockius.

SAN JOAQUIN.

Crop Prospects.—*Argus*, Jan. 22: The moist condition of the soil for the past two months has been exceedingly favorable to farming, and grain universally looks healthy and is more forward than usual, while at the same time a large increase of acreage has been planted, and still the work of plowing and sowing goes on, and will be continued, if the season continues favorable, for the next four or five weeks. Persons from the west side of the San Joaquin with whom we have conversed, inform us that summer-fallow, volunteer and early winter sown grain stands a foot high in the fields, and that the soil is in better condition than it has been at any time for several years. The soil of that side of the valley is rich and only requires moisture and partial cultivation to ensure large yields of grain.

SAN LUIS OBISPO.

The Pawpaw.—*Tribune*, Jan. 22: We were discussing the tree question pretty generally last night, and one of the circle remarked that if one had half a bushel of pawpaw seed and only one specimen of the fruit, and would exhibit this, letting every one smell but not taste, that his seed would "go off like hot cakes." I procured some seed from Kentucky a few days ago and planted them. The fruit looks so good and smells so delicious, that I have often essayed to eat thereof, but never could succeed. Many persons are extravagantly fond of it. All lovers of bananas relish it. I once knew of some experiments being tried with the abundant fruit that did not meet with a successful issue. The fruit was distilled to make brandy, but proved to be execrable stuff, something like vitriol in its effects. Swine will not touch the pawpaw, but the opossum and raccoon get very fat off the fruit. It is a very graceful tree, and bears a flower very much resembling the *Calocanthus* in its appearance, though it lacks the fragrant smell of the latter.

SOLANO.

Crops.—*Democrat*, Jan. 22: Mr. Davis, of Sonoma, who has just returned from a trip through Solano, Napa and Yolo, reports the crop prospects were never better than now. In Yolo the grain is growing so rank that it will be necessary to feed it down with sheep. In this charming prospect Sonoma has a part. Her yields are always fine and this season is no exception to the rule.

SUTTER.

Premature Barley.—*Banner*, Jan. 20: We have been presented with a stool of barley grown on Brigga' ranch, a mile below town, which measures over two feet in hight and is fully headed out.

TULARE.

Flax and Frost.—*Delta*, Jan. 20: Mr. H. Whittaker, who lives on the plains near the foothills, northeast of Visalia, has about forty acres of flax which was sown last February. It grew to seed during the season and the ground was harrowed and brushed in the fall for seeding this season. It has come up again finely and is now four inches high. Last year the season being very dry the growth was only eight inches. Mr. Whittaker informs us that frosts have had no effect on it yet, which is a fact of interest to those contemplating putting in a crop. The final result of this experiment may be looked for with interest, as setting the question whether this crop can be made more profitable than grain in this county.

YOLO.

Wheat and Barley.—*Democrat*, Jan. 21: Mr. Jesse Clark has handed us a bunch of barley and oats over three feet in hight and headed out. It grew in an out door garden, is very strong and healthy, with large, full heads.

Nevada.

A Grand Rabbit Hunt.—*Silver State*, Jan. 22: Another grand rabbit hunt, the second of the season, came off last week in Grass valley. John Guthrie, proprietor of the Sonoma ranch, determined to rid the vicinity of the pests which destroyed acres of grain and vegetables for him last season, and provided ammunition and provisions for a raid on the enemy. Ten guns were mustered into service and the hunt continued four days, in which time 856 rabbits were slaughtered. One hundred pounds of shot was fired during the crusade, and Guthrie is satisfied with the result. According to the record kept by the boys at the ranch 3,000 rabbits have been killed in the immediate vicinity since last July. They are tolerably well thinned out, and hopes are entertained that their depredations will be less extensive next summer than last, when they devoured over sixty acres of barley, besides potatoes and other vegetables. They were as great a plague to farmers in many parts of the county last year as the grasshoppers were in Kansas and Nebraska.

Oregon.

Oregon Seasons.—*Mercury*, Jan. 15: In Oregon there is no foretelling the weather. The course of the seasons seems to be governed by no established laws, nor can a particular period of one year be relied upon as any certainty by which to judge a like period of another year. But yet there is a general similarity of periods of years, and a general similarity of seasons. We do not recollect a year of our residence in Oregon in which we have not experienced weather, the like of which had not been experienced before.

The present winter is unlike any we have known. In its mild temperature it is like many, perhaps a majority of our winters. But in the amount of rainfall we do not think the oldest inhabitant has seen its like. We hardly ever have but one flood period; this season we have had three, and each one higher than usual. We do not think that the mills at this place, which are affected by high water, were ever stopped one-third the time they have been this year during the same months in any other year. The rainy season began at least a month earlier this year than usual. The south winds have been stronger and more continuous. No ice has been formed this winter, and there have been but few frosty nights. From our accounts there has been colder weather in the Sacramento valley, in California, six hundred miles south of us, than we have had in Oregon. Yet, on the whole, we have a good winter thus far, and one which will render the farms productive next harvest season. The month of February will, in all probability, be a good time for seeding, as the brunt of our winter weather is evidently gone by.

A Fine Establishment.—*Mountaineer*, Jan. 15: Our attention has been drawn to a place in the Hood river valley, now owned by Messrs. Baldwin & Tieman. Our friend, S. M. Baldwin, left California about seven years ago, and came to Oregon. Finding his health better in our State, he concluded to remain, and after looking over different parts of Washington Territory and west of the Cascades, he located in Hood river valley. And now, about fourteen miles from where it empties into the Columbia river can be found a beautiful prairie, around which are built extensive barns, one ninety-six by thirty-six feet, with sheds on the sides, another covering the space of 112 by fifty feet; milk and chicken houses, pig pens, stables, etc. There are timothy fields for hay and pasture, and in fact everything necessary for the comfort of their large bands of cattle and horses. And at the first approach of winter, the knowing beasts appreciate the forethought and kindness of their owners by returning to their well supplied winter quarters. The most noticeable fact is that this has all been accomplished by their own hands; they have done all this work without the help of any one, and never have paid out a cent for help since they have been there. Harder working men, or better, are hard to find.

Washington Territory.

Sheep Prospects.—Walla Walla *Union*, Jan. 8: Some of our sheep men inform us that they never before saw sheep looking better at this season of the year than they do now. They have as yet fed nothing of consequence, and the sheep are in better condition than they usually are in mid-winter, even when freely fed and sheltered. As they are wintering so well the wool clip will of course be unusually large.

New Books.

A. S. Barnes & Co. have issued a new edition of Prof. Pendleton's "Text book of Scientific Agriculture." The work is admirably adapted to imparting a knowledge of the results which have been gained by scientific examination of the agencies and conditions which are employed in agricultural practices. It gives the reasons, so far as known, for the multitude of changes, seen and unseen, which take place in the materials which the farmer employs. It is also replete with facts not generally known, but very valuable. The book is used as a text book in several of our agricultural colleges. For sale by Payot, Upham & Co., 622 Washington street, S. F.

We have received "Landreth'a Rural Register and Almanac," published for gratuitous distribution by David Landreth & Son, of Philadelphia. It contains their seed catalogue and many interesting notes on plants and vegetables.

R. J. Trumbull, of 419 and 421 Sansome street, S. F., hands us his "Guide to the Vegetable and Flower Garden for 1876." It is a creditable catalogue for consultation, and contains many new notes on plant and vegetable growth prepared by Mr. Trumbull. We notice a Centennial feature as follows:

"Centennial Mammoth Squash.—This seed, if properly cultivated, will produce squashes of immense size. The parent, from which this seed was taken, weighed 200 pounds, and measured six feet by seven feet four inches. To induce careful cultivation and secure the best results, we hereby offer a premium of $10 for the largest and heaviest squash raised from this seed, and $5 for the second best, the squash to be delivered at our store free of expense to us. A correct list of all purchasers of seed will be kept, and acknowledgment will be made of the successful competitors through the Rural Press."

Mr. Trumbull informs us that he has already enlisted some good gardeners in the contest, and lively times are expected in the trial for the Centennial squash, for it is Mr. Trumbull's intention to send the winning vegetables to Philadelphia.

D. M. Ferry & Co., the well known seed merchants of Detroit, Michigan, send us their massive, handsome "Seed Annual" for 1876. It is a splendid pamphlet, fully illustrated and will be found of value to all gardeners and florists.

In Aid of Forest Tree Planting.—While we have quite a variety of eucalyptus trees from imported seed from Australia, many of which have proved invaluable to our State, we have reason to believe that there are other varieties not yet introduced, as important to us for cultivation in California as the blue gum or any other variety, which are as yet unknown in our soil. We want trees which will thrive as well in on our tule and swamp lands as do the gum trees on our barren plains. To accomplish their introduction we suggest that the legislature appropriate a few thousand dollars to pay the expenses of a commissioner to visit Australia and examine all the varieties of useful trees growing there, and obtain seeds and rootlets sufficient to introduce all that might be desirable for Pacific coast cultivation. He could at the same time collate facts concerning the best uses made in Australia of the kinds of the eucalyptus already growing more or less abundantly in our own State. Ex-U. S. Surveyor General J. T. Stratton, has done more for tree planting by his extensive pioneer work in the cultivation of gum trees in Alameda county than many, if not all other citizens combined. He would be eminently the man to receive such a commission as above suggested.

General News Items.

Cardinal Antonelli is dangerously ill.

Sir George Harvey, the English painter, is dead.

The Chinese New Year festivities have been in full blast this week.

The text book question is still an engrossing topic at the State Capitol.

Snow in San Francisco last week for the first time in many years.

A German squadron—three iron clads and one tender—will visit America in July.

The Carlists severely bombarded San Sebastian Thursday. Some of the inhabitants were killed.

The International society is becoming noisy in Belgium. Workmen are demanding bread without payment.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, Dewey & Co., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., Jan 25th, 1876.

For Week Ending January 11th, 1876.

Graten Entrance to Beehives.—John S. Harbison, San Diego, Cal.

Plow Points.—Michael Laufenburg, S. F., Cal.

Hydraulic Mining.—Jasper O'Farrel, S. F., Cal.

Process of Engraving on Glass.—Edward O'Neil, S. F., Cal.

Wrench.—Elisha T. Barlow, S. F., Cal.

Monkey Wrench.—Elisha T. Barlow, S. F., Cal.

Monkey Wrench.—Elisha T. Barlow, S. F., Cal.

Reissue.

Machine for Kyanizing Wood.—David W. Hunt, S. F., Cal.

——The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Our Agents.

Our Friends can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. Tharp—San Francisco.
B. W. Crowell—California.
John Rostron—California.
G. W. McGrew—Santa Clara county.
J. M. McArthur—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
William Lawton—Alameda and Contra Costa counties.
W. C. Moore—Fresno, Tulare and Kern counties.
J. W. Riley—San Francisco.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

The Scandinavian and German Immigration and Employment Office,

610 Merchant Street, near City Hall, S. F.

Since July, 1875, consolidated with the old California Labor Exchange, established in 1868. Located in the business center of San Francisco, with agents in the East and the mother countries of Europe, and mastering all the principal European languages, we have unsurpassed facilities for complying with any demand on us for male and female help in any capacity and of any nationality, at reasonable terms. A lady attends to the female department. Scandinavian, German, French and American help our specialty. We can furnish farmers with any number of Scandinavian and German help, if timely notice is given. Hotels and private families supplied with French and German waiters. When female help is wanted in the country, the remittance of the passage money in advance is indispensable. Your orders will be filled promptly and conscientiously if addressed to

V. de BRETTEVILLE & CO.,
[P. O. Box 1436.] San Francisco, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, January 26, 1876.

Another week of storms has given us a dull trade in almost all departments of business. Values, generally, have been maintained, although transactions have been limited and the disposition has been one of expectancy.

The cable prices for Wheat from Liverpool has shown a decline in values during the week, but holders here are firm and demand full prices.

The course of the Liverpool quotation to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices.

	Average.		Club.	
Thursday	10s 4d@10s	5d	10s 9d@11s	2d
Friday	10s 3d@10s	5d	10s 9d@11s	1d
Saturday	10s 3d@10s	5d	10s 9d@11s	1d
Monday	10s 3d@10s	5d	10s 9d@11s	1d
Tuesday	10s 1d@10s	4d	10s 6d@11s	1d
Wednesday	10s 1d@10s	4d	10s 6d@11s	1d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	13s 6d@13s 9d	13s 11d@14s 2d
1875	9s 3d@ 9s 7d	9s 3d@10s —
1876	10s 1d@10s 4d	10s 6d@11s 1d

We have at hand the annual circular of Thomas Carr, of Berlin, who is a recognized authority on the probable course of the European Wheat market. We quote as follows:

"There seem to be good grounds for the impression that the value will be somewhat higher than at present. There is no doubt that the large quantities in granary and afloat, coupled with the depressed state of the commercial middle class and the manufacturing districts, tend to check consumption and keep down prices; but with the turn of the year, and particularly towards spring, a revival of trade may be looked for, as by that time (spring) the weight of the present large stocks and arrivals will have either entirely disappeared or nearly so. The fact must not be lost sight of that the cause of there having been less land sown with Wheat in 1874, low prices exist to a greater extent this seed time, though it would not be surprising to hear, when the official notice is issued, that in comparison with the year 1873, 10@12 per cent. less acreage has been put in. This fact may tempt holders of Grain, at home and abroad, to hold on until the last moment and as long as their finances will permit, in the hope that any probable or accidental mishap to the growing crops might cause a speculative demand and a rise in prices after such a lengthy period of business stagnation. From the above Mr. Carr states that although he does not look for an advance to any great extent, prices may go up and down until early in the year, when they are likely to become firm and remain so, or at least not go hack to any great extent until spring, and then on the first impulse (such as the news of a poor seed time or reports of damages having been done to the crops during the winter) go steadily ahead until the result of the next crop be known."

The telegraphed review from the London *Mark Lane Express*, of January 24th, is as follows:

"Milder weather gave a more favorable aspect for farmors, but the same cause led to a deterioration of samples, and prices again suffered, although good and dry samples changed but little. General average yielded 6d per quarter, and remained only 1d above last year's; while deliveries of English are 56 per cent. below them.

"At Paris, Inferior Wheat is 6d@1s lower. Flour has maintained its price, because better rates are obtained for Wheat in some of the provincial markets. Marseilles is overstocked. In Belgium and Holland the markets are unchanged. At Hamburg the markets are still dull. Inland navigation is closed by ice, and ports are open with difficulty. At Dantzic prices are lower, in the absence of the English demand. At St. Petersburg quotations are steady. In Austria and Hungary business has been on the smallest scale. Prices are lower everywhere. There are hopes that the Spring will revive business, but unusually heavy foreign stocks deter millers from purchasing, and act as a dead weight on trade, though we have no doubt they will all be wanted shortly."

A dispatch from Chicago, Jan. 25th, shows the Grain supply at that point:

"Chicago elevators, per official returns, contain 2,657,084 bushels of Wheat; 992,437 bushels of Corn; 429,014 bushels of Oats; 143,623 bushels of Rye, and 328,771 bushels of Barley, being a total of 4,501,427 bushels, against 4,217,322 bushels one week ago, and 5,466,067 at this period last year."

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the week before:

Receipts of Domestic Produce.

Articles.	Week Ending January 19.	Week Ending January 26.
Flour, quarter sacks.	58,530	10,024
Wheat, centals	135,543	73,998
Barley, centals	5,491	7,948
Beans, sacks	1,023	264
Corn	139	2,690
Oats	6,746	12,454
Potatoes, sacks	7,053	6,577
Onions, sacks	1,295	770
Wool, bales	162	158
Hops, bales	126	—
Hay, bales	1,179	994

Bags—Quotations for Bags are unchanged and few transactions are reported. We note one sale of Calcutta Standard Wheat to arrive at 10½c.

Barley—Barley continues in moderate request for Eastern shipments. We note the following sales: 50 tons Chevalier for the East at $1.45; 50 tons, in lots, Feed Barley at $1.27½@1.30; 150 sks Light Bay Feed at $1.25; 200 do choice Coast do at $1.27½; 3,700 sks Coast Feed, in lots, at $1.22½@1.25; 600 do Bay, $1.27½; 2,000 do Bay Brewing, in two lots, $1.30@1.32½; 1,000 do Light do, $1.27½; 2,200 sks Coast, containing adobe $1.22½; 1,500 do good Coast Feed, $1.25; 1,200 do Choice do, 1.27½; 1,641 do Bay Feed, $1.27½; 1,000 do Bay Brewing, $1.30; 1,000 do do, $1.32½; 1,100 do do, $1.35; 428 do Light Bay Chevalier, $1.30.

Beans—Beans are improved. The receipts are light and inquiry better.

Corn—We note sales 700 sks large Yellow at $1.17½; 150 sks small round Yellow, $1.32½; large Yellow, $1.20.

Dairy Produce—Butter is in excess of demand and prices are reduced for the extremes. Eggs have advanced again, as will be seen by our tabular prices.

Feed—Feed is quiet at last week's prices.

Fish—Fish is in light supply. The selection is small.

Fresh Meat—First quality Beef is easier and quotations are reduced a trifle. Lard shows signs of advancing.

Smoked Meat—The Provision market is still firm with upward tendency, although quotations are unchanged.

Fruits—Oranges from Los Angeles are still arriving. The quality is improving.

Hops—Hop prices are still nominal in this market. There is a slight movement overland. Emmett Wells reviews the New York market as follows:

"The receipts and exports for the past week would indicate that we had a very lively market, but such is not the case, as a very large proportion of the arrivals have gone direct from the railroad depots to the steamers for export, instead of coming upon the market. A singular feature of the trade is that prices do not materially advance under the heavy export movement; it goes to show that supplies have been plenty in the country, and that no fears exist of a deficiency for home use. The clearing of 20,000 to 25,000 bales for export at this early period of the year would, in any ordinary season, put the price up, but to day it stands just where it did October 1st, 1875—10c to 15c. A few sales are reported this week at 15½c to shippers, and even 16c has been bid for selections; but the quality to bring these figures must be something extra. The markets in the interior have quieted down. Californians are quoted at 17@20c."

Oats—Oats are received in good supply. We note sales: 50 sks poor Coast, $2; 150 do fair Feed, $2.08¾; 352 do Good, $2.17½; 200 sks Good Feed at $2.20; 300 sks Good Feed, $2.15; 760 sks Good to Choice do, $2.15@2.17½; 110 sks Surprise at $2.30; 400 sks Feed, $2.12½.

Onions—Onions are in full supply. We note sales; 50 sks fair Union City, $1; 50 do Stockton, $1 per ctl. 93 sks choice Union City, $1.12½; 40 do do, $1.10; 75 do fair do, $1 per ctl; 175 sks choice Union City at $1.15@1.17½ per ctl.

Potatoes—Potatoes are quotable higher. The supply is, however, large, and there is appearance of enough in hand. We note sales: 150 sks Sacramento River, 1.22½; 160 do choice Petaluma, from wharf, $1.60. A small lot of Pinkeyes sold at $1.60@1.75. A consignment of Early Rose was received from Salt Lake, but they were mostly frozen. One lot of Tomales brought $1.62½ per ctl, and some River sold for $1.30; 270 sks good Petaluma, $1.50; small sales of Humboldt at $1.37½@1.60 per ctl; choice Petaluma and Tomales at $1.40@1.65 per ctl; 400 sks choice Tomales, $1.60@1.65; 100 sks good Pajaro, $1.40.

Poultry and Game—The trade in Poultry has been active, but now prices show decline, as the Chinese New Year demand is supplied.

Wheat—Wheat is held firmly. The following are among the sales: 90 tons choice Milling, $1.95; 150 tons Shipping, $1.87½@1.90; 3,000 sks Choice, in lots, at $1.90@1.95; 4,400 sks choice Shipping, delivered at Oakland, $1 90; 800 sks good Milling, $1.90; 1,970 do do, in lots, $1.92½; 500 do choice do, $1.95. Large sales of shipping, to be delivered at Vallejo, are reported at $1.82½@1.87½; 4,600 ctls Shipping at $1.90-900 sks Milling, $1.90; 800 ctls do, $1.92½; 500 sks Milling, $1.92½; 500 do Choice, $1.95; 800 do Fair, $1.90; 4,000 sks choice Shipping, 1.90; 2,000 do Coast do, $1.85.

Wool—Wool is dull and buyers are scarce. The New York trade is telegraphed as follows, date of January 24th: "The Wool market has shown considerable animation during the week, and prices have ruled firm throughout. In the goods market there is less activity than was noticed last week; still there is a fair amount of business doing in the finer quality of Cashmeres, and prices are apparently steady. In the present favorable condition of matters, holders are not anxious, sellers believing that with a continuation of the present fair inquiry and limited supply available, prices are sure to advance. In fact, everything points that way; but whether these anticipations will be realized, nothing but time can solve. Sales for the week have been 135,000 lbs spring California at 18@25c for burry and heavy, and 25@32½c for free; 180.000 lbs fall do at 13½@17c; for burry and slightly do, and 17@20c for free; 20,000 lbs scoured do, at 58@60c; 15,000 lbs Western Texas, at 24@26c; 12,000 lbs Eastern do, at 28c; 3,000 lbs Oregon, part at 33c; 50,000 lbs Colorado, at 24½c; 40,000 lbs Domestic Noils, at 46½c; 31 bales Australian, at 45c."

LEATHER.

[WHOLESALE.]

Wednesday M., January 26, 1876.

City Tanned Leather, ₰ lb	22@29
Santa Cruz Leather, ₰ lb	22@28
Country Leather, ₰ lb	22@28
Stockton Leather, ₰ lb	25@29
Jodot, 8 Kil., per doz	$50 00@54 00
Jodot, 11 to 13 Kil., per doz	68 00@79 00
Jodot 14 to 19 Kil., per doz	82 00@94 00
Jodot, second choice, 11 to 16 Kil. ₰ doz	57 00@74 00
Cornellian, 12 to 16 Ko	57 00@67 00
Cornellian Females, 12 to 13	63 00@67 00
Cornellian Females, 14 to 16 Kil	71 00@76 50
Simon Ullmo Females, 12 to 13, Kil	58 00@62 50
Simon Ullmo Females, 14 to 15, Kil	66 00@70 00
Simon Ullmo Females, 16 to 17, Kil	72 00@74 00
Simon, 18 Kil., ₰ doz	61 00@63 00
Simon, 20 Kil. ₰ doz	65 00@67 00
Simon, 24 Kil. ₰ doz	72 00@74 00
Robert Calf, 7 and 9 Kil	35 00@40 00
French Kips, ₰ lb	1 00@1 35
California Kip, ₰ doz	40 00@ 8 00
French Sheep, all colors, ₰ doz	8 00@15 00
Eastern Calf for Backs, ₰ lb	1 00@ 1 25
Sheep Roans for Topping, all colors, ₰ doz	9 00@13 00
Sheep Roans for Linings, ₰ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 4 50
Best Jodot Calf Boot Legs, ₰ pair	5 00@ 5 25
Good French Calf Boot Legs, ₰ pair	4 00@ 4 75
French Calf Boot Legs, ₰ pair	4 00@ —
Harness Leather, ₰ lb	24@ 32½
Fair Bridle Leather, ₰ doz	48 00@ 72 —
Skirting Leather, ₰ lb	33@ 37½
Welt Leather, ₰ doz	30 00@ 50 00
Calf Leather, ₰ foot	17@ ⅓
Wax Side Leather, ₰ foot	17@

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Chaalks Sutro & Co.]

San Francisco, January 26, 3 P. M.

Legal Tenders in S. F., 11 A. M., 88¾ to 89¼.

Gold in N. Y. 112⅞.

Gold Bars, 880@890. Silver Bars, 7½ and 8 per cent. discount.

Exchange on N. Y., 60-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, three to five per cent. discount.

London — Consols, 93 to 93¾; Bonds, 102¼

Quicksilver in S. F., by the flask, per lb, 72½@75c.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., January 26, 1876.

BEANS.			
Bayo, ₰ ctl	2 50	@	3 25
Butter	1 75	@	2 00
Pea	—	@	1 90
Pink	1 90	@	2 00
Sm'l wh	1 70	@	1 75
BROOM CORN.			
Common, ₰ lb	2	@	3
Choice, do	4	@	5
COTTON.			
Cotton, ₰ lb	15	@	18
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Fresh Roll			
per lb	27½	@	30
Point Reyes	30	@	32½
Firkin	27½	@	30
W'st'n Reserve	17	@	22½
New York	2	@	30
CHEESE.			
Cheese, Cal., new	14	@	16
do Old	14	@	17
Eastern	16	@	20
EGGS.			
Cal. fresh ₰ doz	40	@	42½
Ducks'	—	@	35
Oregon	30	@	35
Eastern	35	@	37½
FEED.			
Bran, per ton	—	@	22 50
Corn Meal	29 00	@	30 00
Hay	15 00	@	19 00
Middlings	32 50	@	—
Oil cake meal	—	@	37 50
Straw, ₰ bale	— 65	@	70
FLOUR.			
Extra ₰ bbl	5 75	@	6 12½
Superfine	4 75	@	5 00
FRESH MEAT			
Beef 1st quality lb	8	@	9
Second do	6	@	7
Third do	5½	@	6
Spring Lamb	—	@	15
Mutton	5	@	6
Pork, undressed	6¾	@	7
do, dressed	—	@	9¼
Veal	5	@	7
Milk Calves	8	@	8½
GRAIN, ETC.			
Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Chevalier	1 30	@	1 50
Corn, White	1 05	@	1 10
do Yellow	1 12½	@	1 30
Oats	2 00	@	2 25
Rye	1 50	@	1 55
Wheat shipping	1 85	@	1 90
do milling	1 90	@	1 95
HIDES.			
Hides, dry	15	@	16½
do wet salted	7	@	7½
HONEY, ETC.			
Beeswax, per lb	25	@	27½
Honey in comb	18	@	22½
do Strained	6	@	12½
HOPS.			
New crop	10	@	12
NUTS—Jobbing.			
Alm'ds h'd sh'l lb	8	@	10
do, soft sh'l	16	@	20
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18
ONIONS.			
Union City ctl	1 00	@	1 12½
Stockton	50	@	1 00
POTATOES.			
Petaluma	1 30	@	1 60
Salt Lake	1 65	@	1 70
Sac River	1 10	@	1 30
Humboldt	1 25	@	1 50
Early Rose	—	@	2 25
Sweet	—	@	3 00
POULTRY & GAME			
Hens, per dz	7 50	@	8 00
Roosters	8 00	@	9 00
Broilers	6 00	@	7 00
Ducks, tame, do	10 00	@	11 00
do Mallard	3 00	@	4 00
do Canvass	4 00	@	4 50
Geese, per pair	2 50	@	4 00
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	15	@	16
do Dressed	17	@	18
Quail, per doz	1 50	@	1 75
Snipe, Eng., doz	1 50	@	2 00
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	3 00
PROVISIONS.			
Cal. Bacon, L'ght	15	@	15½
do Medium	14	@	14¾
do Heavy	14	@	—
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'rn Sbould's	—	@	10
Hams, Cal	13½	@	14
do Armour	17	@	17½
do Worster's	18	@	18½
SEEDS.			
Alfalfa, Chile lb	8½	@	11½
do California	11	@	14
Canary	—	@	20
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennia do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Browu	3	@	3½
Rape	9	@	11
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	75	@	1 00
Orchard do	30	@	35
Red Top do	25	@	30
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy	11	@	13
TALLOW.			
Crude	6½	@	7½
Refined	9	@	9½
WOOL, ETC.			
FALL—			
Seedy	11	@	12½
Choice free	12	@	18
Burry	9	@	11
Oregon	—	@	—

S. F. RETAIL MARKET RATES.

Wednesday, M., January 26, 1876.

POULTRY, GAME.			
Chickens	75	@	1 00
Hens	75	@	1 00
Eggs, Hens	55	@	60
do Ducks'	—	@	60
do Farallones	—	@	—
Turkeys, ₰ lb	20	@	25
Ducks, each	1 00	@	1 25
Geese, wild, pair	50	@	1 00
Tame, ₰ pair	3 00	@	4 00
Snipe, ₰ doz	1 25	@	1 50
do English	—	@	3 00
Quail, per dozen	75	@	2 00
Prairie Ch'k s, pr	—	@	—
Hares, each	25	@	50
Rabbits, each	15	@	20
Squirrels do	—	@	15
Beef, tend, ₰ lb	15	@	18
Corned, ₰ lb	8	@	10
Smoked, ₰ lb	—	@	15
Porter House St'k	—	@	20
Sirloin do	12	@	15
Round do	8	@	10
Pork, rib, etc., lb	12	@	12½
Chops, do, ₰ lb	15	@	—
Veal, ₰ lb	10	@	15
Cutlet, do	15	@	25
Mutton-chops, lb	10	@	12
Leg Mutton, ₰ lb	8	@	10
Lamb, ₰ lb	20	@	25
Antelope	15	@	20
Tongues, beef	60	@	75
do, do, smoked	75	@	1 00
Tongues, pig, lb	12½	@	—
Bacon, Cal., ₰ lb	16	@	20
Hams, Cal. ₰ lb	16	@	20
FISH, MEATS, ETC			
Flounder, ₰ lb	15	@	35
Salmon, ₰ lb	25	@	35
Smoked	—	@	8
Rock Cod, ₰ lb	15	@	—
Cod Fish, lb	12	@	15
Perch, lb	15	@	—
Lake Big. Trout	—	@	30
Smelts, ₰ lb	10	@	12½
Herring, Sm'kd.	75	@	—
do fresh	—	@	5
Tomcod, ₰ lb	—	@	20
Terrapin, ₰ doz	—	@	—
Mackerel, p'k, ea	12½	@	—
Fresh, do lb	—	@	—
Sea Bass, ₰ lb	—	@	—
Halibut	—	@	75
Sturgeon, ₰ lb	5	@	6
Oysters, ₰ 100	75	@	—
Ohesp. ₰ doz	50	@	75
Clams ₰ 100	—	@	50
Mussels do	—	@	25
Turbot	65	@	75
Crabs ₰ doz	1 00	@	1 25
do Soft Shell	40	@	50
Shrimps	8	@	10
Sardines	—	@	15
Anchovies	—	@	8
Soles	—	@	40
Young Trout, bay	—	@	—
Skate, each	15	@	25
Whitebait, ₰ lb	—	@	15
Crawfish ₰ lb	8	@	10
Green Turtle	—	@	—

FRUITS, VEGETABLES.

Apples, pr lb	5	@	8
Pears, per lb	5	@	12½
Apricots, lb	—	@	—
Peaches, lb	—	@	25
Plums	—	@	—
Pine Apples, each	50	@	1 00
Lady Apples	—	@	25
Grapes	—	@	25
Bananas, ₰ doz	75	@	1 00
Muskmelons	—	@	—
Watermelons	—	@	—
Blackberries	—	@	—
Cal. Walnuts, lb	—	@	25
Cranber'es, Org.	—	@	—
do Eastern qt	—	@	25
Huckleberries	—	@	—
Strawberries, lb	—	@	—
Raspberries, lb	—	@	—
Gooseberries	—	@	—
Currants	—	@	—
Cherries, ₰ lb	—	@	—
Nectarines	—	@	—
Pomegranates	6	@	10
Oranges, ₰ doz	50	@	1 00
Lemons	75	@	—
Limes, per doz	20	@	25
Figs, dried Cal.	12½	@	25
Figs, Smyrna, lb	25	@	35
Asparagus, lb	50	@	75
Artichokes, doz	75	@	1 25
do Jerusalem	—	@	8
Beets, ₰ doz	20	@	2
Potatoes, ₰ lb	2	@	3
Potatoes, sweet	3	@	5
Broccoli, each	10	@	15
Cauliflower	10	@	15
Green Peas ₰ lb	—	@	—
Cabbage, per hd	10	@	12½
Oyster Plant, bn	—	@	12½
Carrots, ₰ doz	—	@	25
Celery, ₰ dz	75	@	1 00
Cress, ₰ doz bun	20	@	25
Onions	3	@	4
Turnips, ₰ doz bunches	—	@	25
Brussels Sprouts	6	@	8
Eschalots	—	@	25
Dried Herbs, doz	30	@	50
Garlic ₰ lb	12½	@	—
Green Corn, doz	—	@	—
Lettuce, ₰ doz	25	@	—
Mint, ₰ bunch	—	@	12½
Mushrooms, ₰ lb	—	@	25
Horse radish, ₰ lb	15	@	25
Okra, dried, ₰ lb	—	@	—
Pumpkins, ₰ lb	5	@	6
Parsnips, doz	—	@	25
Parsley	12½	@	—
Pickles, frsh, ₰ lb	—	@	—
Radishes, doz	20	@	25
Sage	—	@	25
Marrowfat, do	2	@	3
Hubbard do	—	@	—
Mangoes, ₰ doz	—	@	—
Spinage ₰ bskt	—	@	12½
Rhubarb	10	@	12
Green Chilies	—	@	25

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₰ M	$18 00
Rough refuse, ₰ M	14 00
Rough clear, ₰ M	30 00
Rough clear refuse, M	20 00
Rustic, ₰ M	32 50
Rustic, refuse, ₰ M	24 00
Surfaced, ₰ M	30 00
Surfaced refuse, ₰ M	20 00
Flooring, ₰ M	28 00
Flooring, refuse, ₰ M	20 00
Beaded flooring, ₰ M	30 00
Beaded floor, refuse, M	25 00
Half-inch Siding, M	22 50
Half-inch siding, ref. M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	18 00
Half inch Battens, M	22 50
Pickets, rough, ₰ M	13 00
Pickets, rough, p'ntd	16 00
Pickets, fancy, p'ntd	25 00
Shingles, ₰ M	3 00

PUGET SOUND PINE —Retail Price.

Rough, ₰ M	22 50
Fencing, ₰ M	22 50
Flooring and Step, ₰ M	32 50
Flooring, narrow, ₰ M	35 00
Flooring, 2d quality, M	25 00
Laths, ₰ M	3 50
Furring, ₰ lineal ft	— —
REDWOOD—Retail.	
Rough, ₰ M	22 50
Rough refuse, ₰ M	18 00
Rough Pickets, ₰ M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, ₰ M	30 00
Siding, ₰ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refusc, ₰ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₰ M	40 00
Battens, ₰ lineal foot	½
Shingles ₰ M	3 2

GENERAL MERCHANDISE.

WHOLESALE.

Wednesday M., January 26, 1876.

BAGS.			
Eng. Stand Wht	10½	@	11
Nevillo & Co's			
Hand Sewed	16½	@	11
24x36	11	@	11½
24x40	12	@	12½
Machine do 24x40	12	@	12½
" " 23x40	11¼	@	11½
" " 22x40	11	@	11¼
" " 22x36	9½	@	10
Flour Sacks ½s	9½	@	11
" " ¼s	6¼	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	8½	@	9
do 40-in	7½	@	8
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	15
single seam do	—	@	—
Bean Bags	7¼	@	8
Barley Bags 24x36	11¾	@	12
do 23x40	11½	@	12
do 24x40	12	@	12½
Oat Bags, 24x40	12	@	12½
do 28x36	—	@	13½
Derrick's "E W."	9½	@	10
do "E"	—	@	9½
CANNED GOODS.			
Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 60
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do ½ boxes	3 00	@	—
COAL—Jobbing.			
Australian, ₰ ton	—	@	9 00
Coos Bay	—	@	8 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	— 16	@	— 18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	13 00
Charcoal, ₰ sk	75	@	—
Coke, ₰ bbl	—	@	60
COFFEE.			
Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	31
Manilla	—	@	21½
Ground in oz	25	@	—
Chicory	27	@	—
FISH.			
Sac. Dry Cod, new	4	@	4½
cases	6	@	6½
do boneless	8½	@	10
Eastern Cod	7½	@	8
Salmon in bbls	8 50	@	9 00
do ½ bbls	4 50	@	5 00
do 2lb cans	2 25	@	2 30
do 1lb cans	1 25	@	1 30
do Col. R. ½lb	5 00	@	5 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½bbls	9 00	@	11 00
" Extra	—	@	12 00
" in kits	1 90	@	2 00
" Ex mess	3 00	@	3 50
" Ex mess, ½bs	—	@	12 00
Pic'd Herr'g, hf	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50
HARDWARE.			
Amoskeag handled Axes			
$16@17; do unhandled do $13 @14—less 50c in 5 case lots.			
Amoskeag Hatchets, Shingling, No 1, $7.25; No. 2, $8; No. 3, $8.25. Do do, Claw No. 1, $7.75; No. 2, 8.50; No. 3, $9.25—less 10 per cent.			
Locks, Yale Lock Mf'g Co., discount 33⅓ per cent. from list.			
Planes, Ohio Tool Co., discount 30 per cent. from list.			
Am. Tack Co's Cut Tacks 72½ per cent. discount and 5 per cent. extra. Finishing and Clout Nails, 50 per cent. off list; 3d fine Nails $7.00 per keg. Ohio Butt Co's Loose Joint Butts 50 per cent. do Fast, 35 per cent off list.			
Machine Bolts, 20@35 off.			
Square Nuts, 2@3c off list.			
Hexagon Nuts 2@3c off list.			
Wrought Iron Washers, 2@3c off list.			
Lag Screws, 15 per cent off list.			
LIME, ETC.			
Lime, Sta Cruz, ₰ bbl	2 00	@	2 25
Cement, Rosendale do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₰ ton	10 00	@	12 50
MISCELLANEOUS.			
Pulu	— 7	@	9
NAILS.			
Assorted size, lb	3 75	@	4 00
OILS.			
Pacific Gluc Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	1 25
Baker's A A	—	@	1 40
Cocoanut	55	@	60
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	80	@	—
do boiled	—	@	75
China nut in cs.	70	@	75
Sperm, crude	—	@	1 40
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	—
Lard	—	@	—
Oleophine	—	@	28
Devoe's Bril't	—	@	—
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel kerosene	23	@	25
Olive	—	@	3 50
Downer Kerose'e	40	@	—
Elaine	40	@	—
Gas Light Oil	23	@	25
PAINTS.			
Pure White Lead	9¾	@	10¼
Whiting	—	@	2
Putty	4	@	5¾
Chalk	—	@	2½
Parie White	2¾	@	—
Ochre	3	@	5
Venetian Red	3½	@	5
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal.			
White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50

(Continued from Page 67.)

flesh or bone. Contrast the number of colts gotten by Occident's sire with old Hambletonian's get. Not one of the large number has equaled Occident's time, while they have had all the advantages of science in breeding and education—Occident having instead of gentle halter breaking, the lasso. Occident's education contrasts strangely with the sons of science, in the breeding and handling of horses. He learned the alphabet of work in a dirt wagon, his jogging exercise in an excavation cart and his scrapes and speeding exercise in a poultry wagon. Mrs. —— told me that many a struggle she witnessed in company with the owner and his wife, with fast nags and light vehicles—Occident always being victorious. Goldsmith Maid, Occident, Smuggler and Red Cloud grew up as rustics, until five years old, and I might add Flora Temple, Lady Thorn and Dexter, who, from their turbulent spirits, refused to do little more than contend until after that age. This few, compared with the many failures through the fallacy of early training, and through injury to the feet and burning process of the muscles, prevent the flesh, tendons and cartileges from ever again having the youthful, vigorous condition of an untrained colt. Not one of all the colts trained by Dr. Herr of Kentucky are to be found in competition with other families as matured horses, not a word have we heard this season from Lady Stout, either in a private or public capacity. Hence horse science is defeated by ignorance, for on an average the favored and favorites are defeated, proving most positively that no amount of erroneous experience is of any avail, and that there remains yet a large margin to the credit of the horse waiting for judicious development.

Qualities.

The fibrous material of the muscle of the California horse is of a finer and better quality than that of the horses of any other country I ever saw, because of the peculiar dry feed, an analogy may be sought in the best cured tea; there is not that amount of water drawn into the system. Hence the fine elastic fiber of the flesh is a prominent feature in their miraculous endurance. Superior to either their symmetrical framework, their fine, elastic fibrous muscle, or their rapid motion, is their large breathing apparatus. The result of pure air, well cured hay and straw without dust, mold or rust. The machinery of a horse may be as perfect as that of a well arranged locomotive, with powerful lungs and larnyx well developed, but without a large, well developed nasal channel and open, leaky-like nostril, all the other perfect qualities will avail him nothing, no more than a large furnace and boiler in the locomotive without draft. If there is not sufficient draft to create steam, all the other good qualities of the locomotive will avail nothing, so that without sufficient ingress and egress to the lungs their strength without will avail no more to the horse than a large furnace and boiler to the locomotive without a good smoke-stack or chimney.

The California horse comes nearer filling this want than any other horse I ever saw. Both classes of the progeny of horses imported (if the term will apply to those brought from the sister States as it does from foreign countries) are similarly affected by climate, food and education, their motion becomes more rapid, in fact this happens to both man and beast. This rapid motion, whether native or acquired, is destined to place them in a much more noticeable position when better understood than even the great feat of Occident has done. Defiance and Gold Note, with many of the younger ones are, through that rapid, clean motion, following in the footsteps of Occident. Had old Hambletonian been bred to as many choice mustang mares as he has been to others, however select and well bred, he would have produced more and faster trotters in the aggregate than he has done. No single family has shown equal merit with Bruno and Brunette, and their dam, the little Canadian mare, would not compare favorably with select mustangs, so that we think that California breeders have a nucleus in their native horse that, were they in Kentucky, increased speed would be the result. The infusion of Pilot blood would be superseded by the more rapid motion of the mustang. The owner of old Hambletonian received for his services $183,000, while we are not aware that the sire of Occident has made for his owner as many hundred, and had Occident's sire as many opportunities, no doubt the product would have been a superior family to the Bruno's.

I am, therefore, convinced that a mixture with the Eastern pacers or the Kentucky saddle-horse would produce better trotters and of greater endurance than those that have been bred with so much care. In the thoroughbred running horse his front legs are not attached to his body in the best shape for trotting, hence so many failures in mixing the runner with the trotter.

Through the pure air, the peculiar feed, the rapid motion of every person and everything, from the tenacious flea, house fly and mosquito to the gamboling lizard, everything is on the alert, and I am of the opinion that a large mixture of native blood would prove a benefit, as similar blood has done in Lucelle and Gold Dust. The Pacific coast will yet be furnishing the East with the fastest horses, as Kentucky is now doing.

A FACTORY for making a newly invented explosive material, compared to which giant powder is supposed to be a weakling, is soon to be started at Nevada City.

Nurserymen.

[Established 1853.]

SEEDLING STOCKS and PLANTS

FOR NURSERYMEN.

Apple Seedlings, fine.....$10.00 per 1000
Pear Seedlings, fine.....$15.00 per 1000
Plum Seedlings, Mirobolan, Best French stock does not Sucker.....$40.00 per 1000
Cherry Mazzard Seedlings.....$12. 0 per 1000
Cherry Mahaleb Seedlings.....$15.00 per 1000
Blue Gums in Variety.....$5.00 to $10.00 per 100

Magnolia Grandiflora—all sizes—large stock.

Golden Arborvitæ.....
Heath-leaved Arborvitæ....
Cratagus Arboria.....
Lauristinus.....
Sweedish and Irish Juniper
Medeterranian Heath.....
Loquat or Japan Plum.....
} Fine Plants—Large Stock.

Oranges and Lemons, large stock, best European, Australian, and Chinese varieties, all grafted, from $12.00 to $18.00 per dozen. **Large Palms, Large Tree Ferns, Large Auricarias,** at special prices, with the usual large stock of Fruit and Ornamental Trees.

BERNARD S. FOX,
San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery St., S. F.

1865. 1875.

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	28	250
Prune "	22	200	Pruno "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	10	—	Fertille de Palican	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

ROCK'S NURSERIES,

SAN JOSE, CAL.

The attention of Nurserymen and Planters is invited to my large stock of

FRUIT TREES

Of the very best varieties for Market, Shipping and Drying. Also

GRAPEVINES, CURRANTS, GOOSEBERRIES, BLACK BERRIES AND RASPBERRIES. SHADE TREES, EVERGREENS, BLUE GUMS AND SHRUBS. GREEN HOUSE PLANTS, BEDDING PLANTS, ETC.

Send for a Catalogue.

JOHN ROCK, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

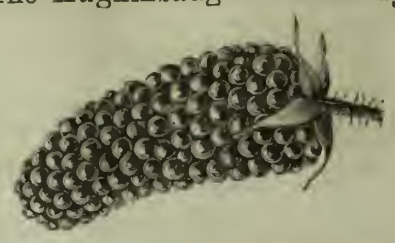
Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,
19v8-tf Petaluma, Sonoma Co., Cal

1,000 000 Blue Gum Trees

At $10 per 1000 in lots of 10,000, or $15 per 1000 in smaller quantities. Address W. A. T. STRATTON, Pacific Forest Tree Nursery, Petaluma, Cal.

The Aughinbaugh Blackberry



This new blackberry is a California production, of large size, firm, and excellent flavor. It ripens from May until August. The last of the crop of berries sold readily at 40 cents per pound when the "Early Wilson" brought 20 cents at the same time. Plants are now ready for transplanting and for sale at my residence on Central avenue, west of Webster street, Alameda, and Geo. F. Silvester's, 317 Washington St., San Francisco.

PRICES:

For one doz., by mail, postpaid	$3 00
Less than one doz., by mail, postpaid, each	50
For 100, forwarding expenses paid by purchaser	15 00
For 1000, forwarding expenses paid by purchaser	100 00

Send your address and receive circular containing particulars FREE.

G. AUGHINBAUGH.

RIVER BANK NURSERY,

San Jose, Cal.

Established - - - - 1855.

FRUIT AND ORNAMENTAL TREES in great variety. Choice and Rare Variety of EVERGREENS, SHRUBS, ROSES, BEDDING PLANTS, PALMS, MAGNOLIAS, FERNS, TUBEROSES, GLADIOLAS, Etc., with general collection of Greenhouse Plants, Hanging Baskets, Etc.

Nursery and Greenhouses, corner Berryessa road and 12th street, two blocks from terminus of North Side horse railroad. Address

L. F. SANDERSON,
Nurseryman and Florist, San Jose.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,
325 Washington street. S. F.

Formerly at 315 Washington street.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Luisante.

Chestnut: Marron de Lyon and Combale.

Walnut: Preparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

FOR SALE—BLUE GUM TREES.

The undersigned has the pleasure of announcing to those contemplating planting largely this season, the nursery stock of the well known Gum Tree Farm, at $15 per thousand, nursery price. The young stock is extensive, ranging in hight from 8 inches to 1½ feet, specially grown for Forest Culture. Address, ISAAC COLLINS, Haywood, Alameda Co., Cal. Nursery situated on Redwood road, 1½ miles from Haywood.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,
P. O. Box, 722. 516 Battery Street.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.

November, 1875.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

CAMELLIAS.

We offer a large stock of very fine plants at from $33 to $100 per 100. For catalogues of these, as well as of Azaleas, Rhododendrons and Evergreen Trees in great variety, address

R. B. PARSONS & CO.,
Box 99, Flushing, N. Y.

BLUE GUM TREES.

400,000 For Sale. Price from $10 to $45 per 1,000. Also a fine stock of Ornamental Trees, Etc.

Main Depot, 118 East 12th street, Oakland. Branch Depot, Market street, opposite new City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

BAILEY & CO.,
Box 80, Oakland, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

VICK'S FLORAL GUIDE

This is a beautiful Quarterly Journal, finely illustrated, and containing an elegant colored frontispiece with the first number. Price only twenty-five cents for the year. The first number for 1876 just issued. 🏷 Vick's Flower and Vegetable Garden, 35 cents; with cloth covers, 65 cents. Address

JAS. VICK, Rochester, N. Y.

MICROSCOPES AGAIN.

Just arrived, another lot of Microscopes, only more kinds and more of them, as follows:

No. 1. A handy little brass mounted Microscope, very powerful for the size; just the thing for everybody to have in their waistcoat pocket, to increase their field of vision from twenty-five to fifty times, whether a tiny flower or blasted grain; it is good for either. Sent for one dollar postage stamps or currency.

No. 2. A two story Microscope, not in size but simply having an under story, put in to raise up the upper story, which is enclosed in glass. The top can be taken off and a small object, like a flea or fly, can be dropped in. About as powerful as No. 1. Sent free to any address for one dollar, postage stamps or currency.

No. 3. Much larger, and is also enclosed in glass. Too large for the pocket. These last have from ten to one hundred, more or less, mounted objects, consisting of bugs, shells, grain, moss, etc. The top of this also comes off and a flea can be dropped in, which will make it very large, showing its rings, looking somewhat like an armadillo loose in a fairy palace. Sent free to any address for two dollars, postage stamps or currency. Address

CHAS. P. KIMBALL,
513 Hayes Street, San Francisco.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER.
521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

W. R. STRONG, Seedsman. Established 1857. 1876. ROBT. WILLIAMSON, Nurseryman, Established 1865.

W. R. STRONG & CO.

SEEDS. TREES.

San Francisco Office, 418 & 420 Clay Street. Sacramento Office, 8 & 10 J Street.
Nursery Grounds, Sacramento County.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, - - - W. R. Strong & Co.
House in San Francisco, - - - Strong & Williamson.

P. S. Alfalfa, Chile grown, 7 to 11c; California, 11 to 15c, as per quantity and grade Guaranteed fresh and genuine.

Seedsmen.

T. O'CONNOR & CO.,

SEED AND PRODUCE

Commission House,

IMPORTERS OF

Seeds and Semi-Tropical Trees, Plants and Fruits, Etc.

American Sweet Chestnut, 10,000, 3 to 4 feet high.
American Black Walnut, 1,000.
Kilmarnock Willow, 500.
Weeping Ash, 300.
Twenty varieties of Tree Roses from Trained Wigelia Rose. Althea or Rose of Sharon, three colors.
Acacia or Moss Locust. Golden Dwarf Peach, Great Novelty, 1,000. Magnolia Trees, 1,000 from 2 to 3 feet.
Orange Quince, 200.
Rhododendrons.
Six varieties Currants.
Six varieties Raspberry.
Twelve varieties Strawberry.
Downing's Improved Gooseberry.
Forty varieties of Fruit and Ornamental Trees.
All Imported and All Budded Stock.

T. O'CONNOR & CO.,
426 Sansome street, near Clay, S. F.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,
607 Sansome St., San Francisco.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,
(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

FLOWER SEEDS. VEGETABLE SEEDS.

Spooner's Prize Flower Seeds

Spooner's Boston Market Vegetable Seeds.

The cheapest and best seeds in the market. Send two 3 cent stamps for our illustrated catalogue and see the prices.

W. H. SPOONER, Boston, Mass

ALL ABOUT GARDENING

For Home Use and for Market, in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

GUADALUPE ISLAND COMPANY.

Notice is hereby given that the Annual Meeting of the Stockholders of the Guadalupe Island Company will be held at its office, 207 Sansome street, San Francisco, Cal., on Monday, January 31st, 1876, at 3 P. M.

ARTHUR ROGERS, Secretary. BENJAMIN FLINT, President.

1845. CHARTER PERPETUAL. 1875.

Economy, Security.

Mutual Benefit Life Insurance Company

NEWARK, N. J.

Assets, January 1st, 1875, - - - $30,533,429 94

LEWIS C. GROVER, Pres't. L. SPENCER GOBLE, Vice Pres't.

Edward A Strong, Sec'y. Benj. C. Miller, Treas. B. J. Miller, Actuary.

The following is a summary of the business of this Company from May 1, 1845:

Total Receipts,	$74,397,520 70
Paid Losses and Endowments,	17,187,583 26
" Dividends or Return Premiums,	16,362,010 85
" Surrendered Policies,	3 714,825 66
" Expenses—Management, Commissions, Taxes, etc.,	7,471,171 52
The Ratios are:—	
Retained for Insurance Fund and Surplus	$39.07
Returned Members and Families	50.09
Expenses,	10.04

These results are more favorable to the Insured than those presented by any Company in the World.

ALL KINDS OF APPROVED POLICIES ISSUED.

☞Dividends paid annually, or they can be applied on the Accelerative Endowment Plan, as ORIGINATED BY THIS COMPANY, to which particular attention is called.

ACCELERATIVE ENDOWMENT PLAN.

The plan is intended to meet the wants of those who wish protection for their dependents in case of premature death, and at the same time to make a wise provision for themselves in the event of surviving the productive period of life.

The plan proposes that instead of using dividends in reduction of the annual premium, the insured may at his discretion, pay his premiums in full in cash, and surrender his dividends to the company. In consideration of this surrender, the company will agree to pay the sum assured when the policy holder shall have attained a certain age, or at his previous death, instead of at death only, thus enabling him to procure an Endowment Policy at the usual rates charged for policies payable at death only.

If the policy is already an endowment, payable at a given age or previous death, the surrender of the dividend will enable the company to agree to pay the policy at a still younger age.

Advantages of the Accelerative Endowment Plan

Over any other yet offered to the public, will be apparent when the following features are considered:

It can be applied to any policy, whether "Life" or "Endowment," to old business as well as new, where there is no premium-loan, or where the existing premium-loan shall be paid off.

It enables one to obtain an "Endowment" policy at the usual "Life" rates.

The expenses incident to this form of "Endowment" insurance, being no greater than in case of "Life" policies, its superiority to the old style endowment will be readily perceived.

It not only has the effect of constantly reducing the age at which the company will agree to pay the policy, but also, every dividend so applied becomes itself the source of future surplus, thus causing the dividends to increase much more rapidly from year to year than would be the case if they were used in payment of the annual premiums.

The assured can, in any year, apply his dividend in payment of premium, and allow the time at which the policy matures to remain as at the previous year's settlement.

As each dividend is surrendered, the company will make a positive agreement as to the time at which the policy will be paid, and the amount payable at such time.

If at any time the assured becomes disappointed or dissatisfied with the plan, he is at liberty to use his future dividends in payment of premium, and to retain all the advantages accruing from the surrender of past dividends.

If at any time the party should be unable or unwilling to continue payment of premiums, the company will, within three months from the date of lapse, allow the equitable value of the policy in paid-up insurance.

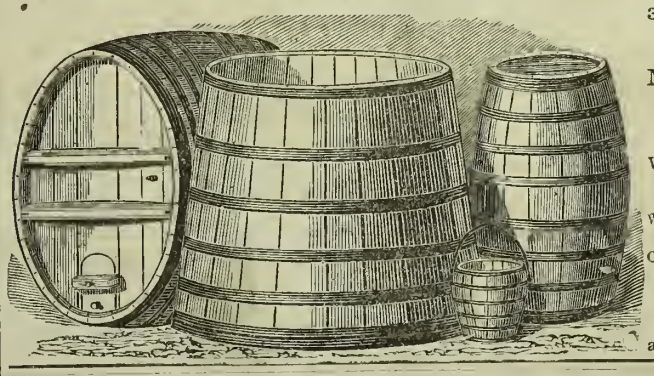
☞The Mutual Benefit Life Insurance Company issues Policies insuring the lives of healthy persons residing in any part of the United States.

JAMES MUNSELL, Jr., Agent of Insured,

And Acting Agent for persons desiring Life Insurance.

224 Sansome Street, - - - - - - - - - - - - - - - San Francisco.

CALIFORNIA WINE COOPERAGE AND MILL CO



30, 32, 34, 36, 38 & 40 Spear Street,

M. FULDA & SONS

Proprietors.

Manufacturers of

WATER TANKS, SHIP TANKS, MINING WORK,

WINE, BEER AND LIQUOR CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed and Dried Before or After Manufacture at Reasonable Rates.

Sawing, Planing, etc. at Short Notice. eowbp

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO, CAL.,

MANUFACTURERS OF

LINSEED, CASTOR AND COCOA NUT OILS,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our Works.

Office—3 and 5 Front Street.

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

FARMERS write for your paper.

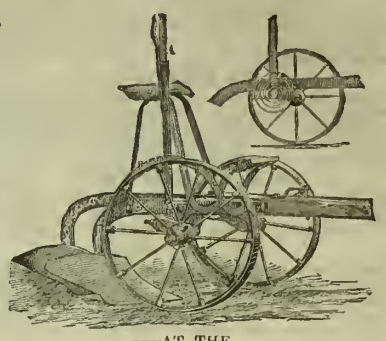
FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of J. M. DUDLEY, Dixon, Solano County, Cal.

Agricultural Articles.

OAKLAND GANG PLOW

Manufactured by HENRY N. DALTON.



—AT THE—

PACHECO

Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or be raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,
Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

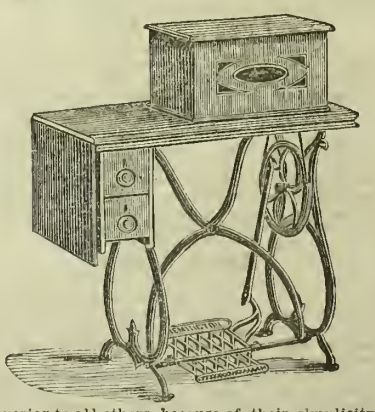
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

THE PACIFIC RURAL PRESS

For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the PRESS MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the RURAL and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the RURAL PRESS may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the RURAL PRESS for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our HOME CIRCLE department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the RURAL will be cared for in our GOOD HEALTH, USEFUL INFORMATION and DOMESTIC ECONOMY columns. Our GENERAL NEWS ITEMS, NEW INVENTIONS, SCIENTIFIC and MECHANICAL MISCELLANY articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the RURAL PRESS will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the RURAL PRESS of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the PACIFIC RURAL PRESS will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

We Prepay the Postage

On all papers sent to subscribers in the United States.

SUBSCRIPTION RATES, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers,
No. 224 Sansome street, S. F.

THE ONLY RELIABLE

STRAW BURNING ENGINES.

RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874, re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength and power will surpass anything ever before invented. They are unquestionably the best engine in the world. They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the State, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co., as my sole agents for the manufacture and sale of my straw burning engines on the Pacific coast, and all orders should be addressed to them.

San Francisco, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials and all other information, to our office, 108 and 110 Front street, San Francisco, and corner Second and J streets, Sacramento.

MARCUS C. HAWLEY & CO.

DEWEY & CO'S
Scientific Press
Patent Agency.

SCIENTIFIC PRESS—Mining and Mechanical.

PACIFIC RURAL PRESS—Agricultural.

Publishers, Patent Agents and Engravers.
No. 224 Sansome Street San Francisco Cal

TRAVELING AGENTS WANTED

For this paper. Experienced canvassers can make excellent wages. None but intelligent persons of good recommendation need apply.

THOUGHTLESSNESS.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

E. S. LEE & CO'S

Illustrated and Descriptive Circular of

WATERS'

Improved Tree Pruner

For 1876,

Will be mailed free to applicants. We offer large discounts to Jobbers and Hardware Dealers. Receives first premium at all fairs where shown.

Price of 4 ft. pole.....$2 50
" 6 ft. pole..... 2.75
" 8 ft. pole..... 3.00
" 10 ft. pole..... 3.25

Manufactured only in Rochester, N. Y.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY.

BRONZE TURKEYS.

PRICE-LIST For 1876 Now Ready.

EMDEN GEESE, Pekin Ducks.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

FREE to all who wish their Seed *directly from the grower*, my large, elegantly illustrated Vegetable and Flower Seed Catalogue. Address, JAS. J. H. GREGORY, Marblehead, Mass.

CAMELLIAS. A large stock of very fine plants at rates from $ 3 to $100 per 100 according size and kinds. Also

Rhododendrons, Azaleas and Roses.

PURPLE BEECH and other RARE and ORNAMENTAL TREES.

ROSES and the Best FLOWERING SHRUBS.

CLEMATIS OF MANY NEW AND FINE SORTS.

Catalogues Free. Address

R. B. PARSONS & CO.,
[Box 99,] Flushing, New York.

NEW CROP OF
BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,
v8-tf SAN FRANCISCO.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞ Trade Price List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

THE Twentieth Edition of our celebrated Seed Catalogue and Amateur's Guide to the Flower and Kitchen Garden, containing upwards of 200 pages, including several hundred finely executed engravings of favorite flowers and vegetables, and a beautiful colored chromo, with a Supplement for 1876, will be mailed to all applicants upon receipt of 35 cents. An edition elegantly bound in cloth, $1

BLISS' ILLUSTRATED GARDENERS' ALMANAC

For 1876, and Abridged Catalogue of Garden and Flower Seeds, contains upwards of 100 pages, and embraces a monthly Calendar of Operations and a price list of all the leading Garden, Field and Flower Seeds, with directions for their culture. A copy will be mailed to all applicants inclosing ten cents. Address

B. K. BLISS & SONS, 34 Barclay St.,
P. O. Box 5712, New York

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, FEBRUARY 5, 1876. [Number 6

Wheat in California and Minnesota.

We have received from the able statistician of the Department of Agriculture, Hon. J. R. Dodge, the following interesting communication on the wheat yield of California and Minnesota. The controversey which led us to request these figures was, we believe, concerning the amount of small grains produced, but the following is of general value :

MESSRS. EDITORS :—In answer to your inquiry as to the comparitive wheat production in your State and in Minnesota, I give you the original estimates of wheat in both States in the past eight years, premising that they were made in advance of the State returns of either. The average of California for the past seven years is made about 2,000,000 bushels greater than Minnesota. As to California, these estimates are evidently not too high, the assessors, returns averaging 1,000,000 bushels higher. The Minnesota returns, on the coutrary, are no higher than our estimates, and on a comparison of the assessors' returns of both States, the difference is fully 3,000,000 per annum in favor of California.

The census is an uncertain guide to the relative production of States, on account of the annual fluctuation occasioned by differences in rainfall, frosts, etc., as shown by the variation in the aggregates for the several years in the following table of wheat estimates :

Years.	California.	Minnesota.
1874	28,380,000	21,338 000
1873	21,504,000	28,056,000
1872	25,600,000	23,200,000
1871	16,757,000	12,016,000
1870	14,175,000	16,022,000
1869	20,000,000	19,000,000
1868	21,000,000	14,500,000
Total	147,416,000	134,132,000

I propose to exhibit at the Centennial similar averages for periods of years, for the principal products of all the States, which will show the relative actual production of the States far better than a comparison of the census crops of 1859 and 1869.

Respectfully yours, J. R. DODGE.
Washington, Jan. 24th, 1876.

Is This Agriculture ?

Do the farmers of the State know the true character of the men who have represented them in the annual councils of the State agricultural society ? Look at the names and record of those who do the principal speaking and managing. It may be proper to ask why such persons are required to manage what ought to be a farmer's State society. No wonder well meaning farmers who have attended the show on the stock grounds of the State agricultural (?) society for the past few years and have witnessed the gambling, fighting and drunkenness, to say nothing of minor evils, which have daily manifested themselves under the roof of the grand stand, cry out: "For God's sake, must all this be done in the name of agriculture ?" Is this the California farmer's festive day ? It may have been necessary under the past managers. Perhaps they did the best they knew how. But is it not the fault of the farmers that they allow this to go on, by permitting others than true farmers to do the *real* managing ? It is time the farmers waked up on this subject. We would say that the citizens of Sacramento are as much interested as others to have the State agricultural society made what it should be. Many of her citizens, although not directly interested in farming, have had a genuine interest in the society, and unselfishly and nobly supported its best features and will do so in the future, when the society is made what it ought to be.

JOHN FORSTER, formerly one of the editors of the *Daily News* and latterly celebrated for his "Life of Charles Dickens," is dead.

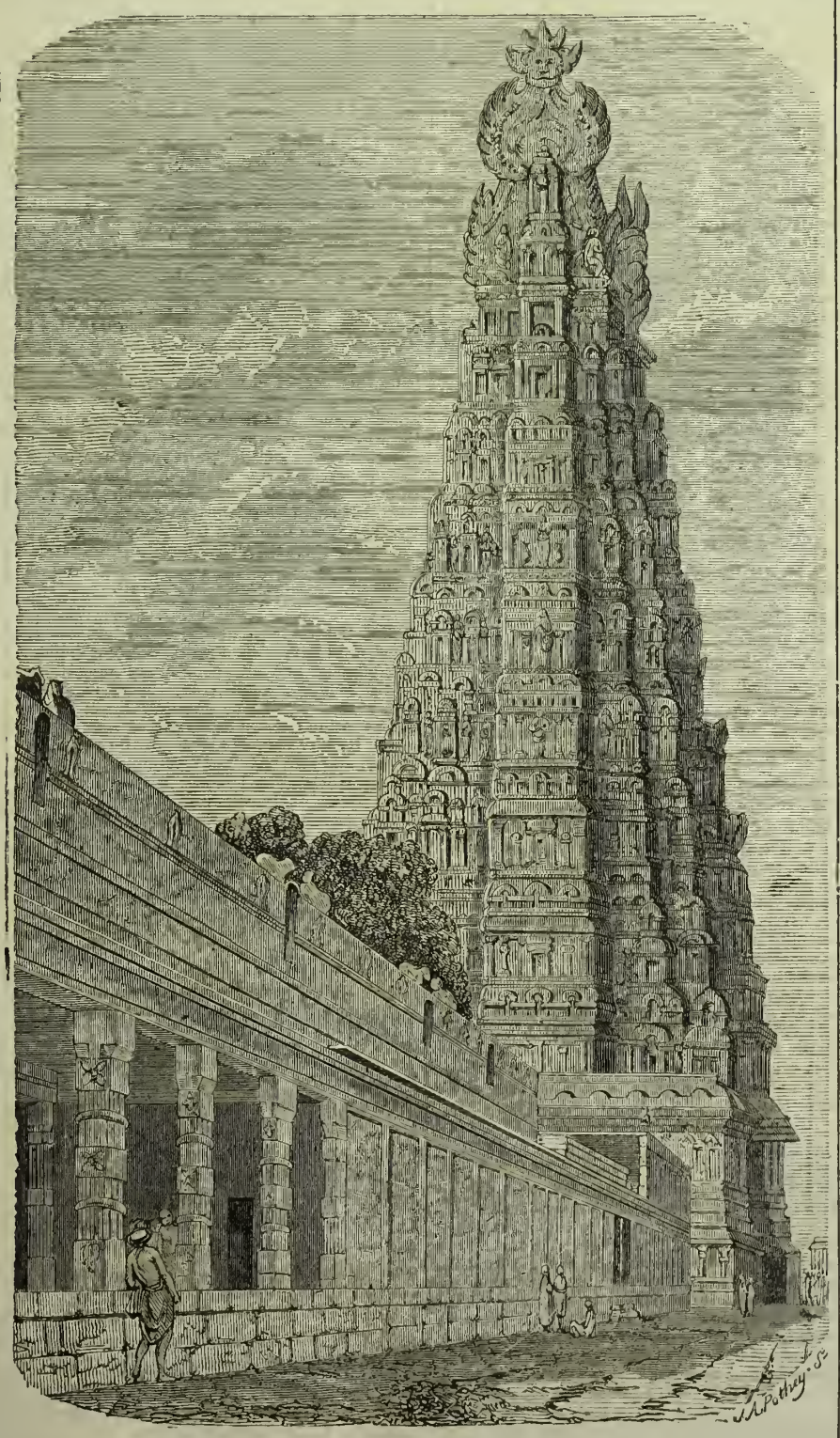
THE Direct cable company offer a reward of $5,000 in gold for the discovery of the people engaged in breaking their line.

PROFESSOR TYNDALL is shortly to be married.

Pagan Temples.

We give our readers on this page a picture of a pagan temple. It is a structure of wondrous massiveness and ornamentation. It lifts its head upon storied architecture toward the sky. As a building it is lofty and commanding, but what does it symbolize ? If we think of the darkness which clouds the lives of those who reared it, the superstition and cruelty which is characteristic of their worship and of the base qualities which they attribute to their gods, in whose honor it was reared, does not our admiration of the building mourn that its greatness was for such a cause ?

There are other pagan temples than those which are builded in pagan lands. There are lives of men which are founded and pursued for objects lower than pagan superstition. There are men who reach high station and disport themselves before the gaze of the whole world, whose lives are as base as their fortunes are lofty. They endure for a time and then pass away, as pagan temples are passing away before the advance of a christian civilization. Let us build something that will endure. Let us form our lives upon right principles and for noble ends, Let us look upon this pagan temple and take warning that greatness must be true greatness or it will not endure.



A PAGAN TEMPLE.

THE Indianapolis whisky ring conspirators got two years in any penitentiary they might choose and $1,000 fine.

MCKEE, of the St. Louis *Globe-Democrat*, has been convicted of complicity in the whisky frauds.

California Fruits for the Army.

The future of our fruit industry will be measured by the market which we can secure. As this is so, it is of general interest to know every step which seems progressive in this direction. We are informed that the Commissary General of the United States army has recently ordered a full line of samples of the California fruit, dried by the Alden process, to be sent to Washington for the purpose of testing them. Now this is a matter of advantage to the Alden company certainly, but it is not less so to California fruit, if the new investigation prove satisfactory. Several years ago the Alden fruit was adopted for the army and navy use, and since that time the government has been the largest purchaser of their goods. The new test is therefore of peculiar importance to California fruit growers, for it is now California fruit which is to be examined. We cannot doubt but that the report which will follow this test will be favorable, for our California fruit will win by its superior richness in sugar, and by its unsurpassed appearance. We await such a verdict from the present test and expect it to have great weight in calling attention to our product and both directly and indirectly operating to our advantage.

We notice that the Alden company are preparing to introduce a system of packing their dried fruit in a neat paper package of uniform style and weight, which will not only be of advantage to purchasers, because of convenience, but will be also a surety of the genuineness of the article.

Agriculture at the Capital.

Irrigation.

We are informed by correspondence from Sacramento that there are now four irrigation bills before the Senate Committee on Agriculture, and that it is doubtful whether anything toward a general system will be decided upon, except making an appropriation for a general survey. In the Assembly the bill for the creation of the West Side irrigation district, on the west side of the San Joaquin river, is still under consideration.

Protecting Timber.

The following bill for the protection of timber from injuries which may be inflicted by a person with malice, has passed both Houses:

SECTION 1. Any person who maliciously drives into, or places within any tree, saw log, shingle bolt, or other wood intended by the owner thereof to be manufactured into any kind of lumber, any iron, steel, or other substances sufficiently hard to injure saws, is guilty of a felony, and shall be punished by imprisonment in the State Prison, not less than one, nor more than ten years.

SEC. 2. Every person who maliciously cuts, or breaks, or otherwise destroys any boom used for the preservation or protection of any kind of logs, wood, or timber, is guilty of a felony, and shall be punished by imprisonment in the State Prison, not less than one, nor more than ten years.

SEC. 3. This act shall take effect and be in force from and after its passage.

A Big Flume Bill.

The Assembly Committee on Agriculture have under consideration a bill looking to the construction of a flume and canal in Sacramento and El Dorado counties. The object is to construct a flume or canal not only for mining and irrigating purposes, but for the transportation of lumber and wood. The initial point of the flume is to be at Slippery Ford in El Dorado county, and extend from thence along the south and middle forks of the American river to the junction of the forks with the main river, and from thence along the south bank of the American river to Folsom, in Sacramento county.

SPAIN, Turkey, Central Asia and British India are just now having plenty of rebellions, uprisings, etc.

THE regular annual university boat race between Cambridge and Oxford has been fixed for Saturday, April 8th.

BISMARCK continues ill.

CORRESPONDENCE.

A Question in Summer Fallowing.

MESSRS. EDITORS:—I frequently hear and read of a (so to speak,) wonderful crop raised on worn out lands that have heen "summer fallowed," and have invariably understood this great improvement to he brought about hy the extraordinary recuperation that takes place during this one years' rest. A question arises in my mind whether there are not other causes to which the great increase in yield may be more justly attribnted, other than that above mentioned. In the first place, land that has been cropped ten or even a less number of consecutive years, is not likely to regain much of its pristine vigor by one year's rest, and, in the second, I have occasionally noticed that land that had been summer tallowed, but which was not early sown, *i. e.*, in November or the earliest part of Decemher, has raised no hetter crops than it not summer fallowed at all. That "rest," even it for only one year, will improve the land, I will not attempt nor do I intend to dispute; but where that rest has been so short and the previous drain so heavy, I would give the credit of the increase of yield first to the temperaturo, and second to the condition of the soil at the time of sowing. If grain be "dry sown," so as to take advantage of the early rains in November, we notice that it sprouts and shows itself above ground in a conple of days, and will in one week's time have obtained a stronger and healthier growth than it would in two to three weeks' tiute if sown during the latter part of December or in January, when the ground, although far moro moist, is also very cold. I argue, therefore, that to take tull advantage of the benefits arising from "snmmer tallow" it is necessary either to "dry sow," or to sow immediately after the first rains, otherwise the land loses, first, the great desideratum, warm temperature, and second, a great portion of its condition or friability, and that theretore, the expense of summer fallowing and the interest on said nonproducing land will prove an almost total loss, nnless the seed is sown in time for the first rains. Csrrying my interences a little further, I should say, also, that rather than plow in December and January, and take the first opportunity thereatter of sowing the grain, (as the ground dried off sufficiently to admit of thorough harrowing), it would be preferable and eventually more profitable to the farmer to let it lie uutonched after plowing, until the middle or latter part ot February, or even the oarly days of March. By this time most of the snrtace water which keeps the ground cold will have penetrated the soil, and the temperature of the upper crust will have been raised, and theretore be in a better condition to induce rapid germination and growth. RANCHER.

Santa Cruz.

MESSRS. EDITORS:—Perhaps iu writing you it is necessary to state that I am not a subscriber to the PRESS this year, but have heen for three years previous. My son now takes your excellent paper, and I have tho pleasure of reading it.

We have had twenty-one inches of rain this wintor; you might supposo that we have had a gloomy, stormy time, but such is not the case. On the contrary, we havo had a most delightful wiuter; tne rain for the most part has fallen in such quiet, gentle showers, aud has been so frequently interspersed with bright, sunshiny days, that it is a misnomer to call it wiuter. I have traveled over many counties in California, and have made inquiries of travelers from various parts of the State respecting climate, health and other advantages, my object being to find if possible the *best* place in this favored State. I have spent over fonr years in making this search, and have finally wound up my researches with the conclusion that Santa Cruz is the

Gem of California.

I feel that I am located for life, but am not *quite* contented yet, for I should like to have all the good folks in Christendom come and live here, too. One member ot my family, who was considered a confirmed consumptive at the time we lett Illinois, is restored to perfect health and robustness by his residence ot two or three years in this place.

The climate here is somethiug wonderful. I wish that every invalid in America could enjoy its salubrious atmosphere and enchanting scenery.

Only think, to-day, January 14th, I gathored some tomatoes in my garden to seasen the soup, and in the ssme garden are lilies, roscs, tuchsias, geraniums, heliotropes, abutilons, pinks, nsrcissus, penstemons, veronicas, and a score of other choice flowers and shrubs in tull bloom. We never have a cold rain in Santa Cruz; also, we never have a frost to injure fruit or flowers the year round, except it be in some low or shady place. We can raise here all the fruits and vegetables belonging to a temperate olimate in the greatest profusion, and many of the tropical fruits. Irrigation is not deemed necessary for crops or fruits, excepting strawberries or something of that kind. The orange tree grows finely here and makes a choice evergreen for the lawn, but it is not hot enongh in the summer to ripen the oranges. We are completely sheltered by the mountains from the fearful northers and northwesters. The summers are perfection, just warm enough to be comfortable. We have the finest bathing beach on the Pacific coast. Thousands of people come here every summer to regain their lost health by splashing in the surf, gathoring shells and sea mosses on the warm, sunshiny beach, trout fishing, camping, taking rides up the sea coast and into the mountains. The climate is so perfect here that you feel as if you want to live out of doors all snmmer. This place, especially, abounds in rich and varied scenery. We have the mountains, distant a tew miles, clothed to their tops with evergreen forests. One of the peaks is 4,000 feet in hight. Then come the foothills, dressed in a suit of velvety green, spangled with flowers of various hne, and studded here and there with grand old live oaks. At the foot of the hills lies a beautiful plain, sloping gently to the bay. On the plain stands the town of Santa Cruz. This plain contains many thousand acres, and is tramed in by the hills iu the form of a half circle, with the mountains for a hackground. In front lies our glorious bay, some twenty miles across. About one mile from the towu the waters of the bay mingle with those of the mighty ocean, hut a spur of the mountains shelters us from the coast winds.

Persons coming here iu summer from the hot valleys of this State and other tropical climes are apt to think it a little too cool and suffer from chilliness. This difficulty can he obviated by wearing a complete suit of flannel undergarments, something which every ono living ou the coast should practice, to insure health and comfort.

Progress.

This county is the second in the State for manntactures, as it abounds in choice timber and water power, which is to be found at almost every mile. An Eastern man is about to erect a twenty-five thousand dollar flouring mill, and we have two railroads that are nearly completed and another one talked about. We have excellent schools. The street cars run trom the town to the beach, every halt hour. The winter rains have not prevented the erection of buildings; several substantial stores have been built this winter, and frame houses are going up every day.

And now, Messrs. Editors, if you wish to issue your paper for one hnndred years to come and attend the Centennial of 1976, you must take up your abode in Santa Cruz. This county is noted for its centenarians.

MARTHA WILSON.

Santa Cruz, Cal., Jan. 14th.

The Uses of Alfalfa.

MESSRS. EDITORS:—Having read an article in the *Record-Union*, taken from the Los Angeles *Herald*, entitled "Alfalfa as a Source of Wealth," I wish to make a few remarks, and also a correction. There is no question in the mind of any one who has had experience as to the wondrous productiveness of alfalfa. I also agree that it is the best forage in its green or dry state for sheep and cattle ot any known product of the earth in the form of grass or hay, and some believe that it is equally good for store hogs, either as grass or in its dried state, claiming that they will thrive on it dry nearly as well as green. I am inclined to the same belief—although I have not used it in that state for hogs. A small allowance of it daily to horses may be beneficial, hut as a principal feed for horses it is not good, except for horses that are used for slow work. For driving horses it is decidedly bad, and for horsos used for slow business it is greatly inferior to oats, barley, or wheat hay. When alfalfa is twelve dollars per ton, barley is fifteen dollars, oats seventeen dollars, and wheat nineteen dollars. These prices are for first-class articles, exclusively, a very poor article of any variety selling perhaps for less than the best ot the variety next lower in price.

For Horses.

The effect of alfalfa hay on horses is to cause a great flow of urine in all cases, and in brisk driving or very hard pulling, a copious perspiration, and a weakening looseness of the bowels. Also, I have noticed most horses have more or less cough and short wind. I have used alfalta for horses of low and high mettle, and I find the effect on the high mettled worse than on the former. Used as a grass tor the horse it is better than used as hay. I speak both trom experience and observation. But if horses are put into alfalta pasture very early in the season of its growth, they should have access to hay or straw of some kind. After it has become loss rank as the season advances, it is good to turn colts and horses which need a rest from work and the stronger kinds of feed tor a tew months at a time. But I do not believe that horses ot great endurance for driving, riding or draft can be reared on alfalta, and be kept on it during the performance; much less that they could be successful as trotters or runners when kept on altalfa hay against others kept on oat hay.

Wide Growth of Alfalfa.

And now, a word as to its range ot culture in this State. It is from San Diego to Del Norte. I speak advisedly. It grows and does not frost-kill where the ground freezes one foot in depth, and where the snow lies for three months.

There are very extensive fields ot alfalfa in Sacramento county, Sutter county, Yuba county, Butte county, Yolo county and Solano county, that are trom five to fifteen years old. The country about Woodland is one of the best for that grass in California. The extensive fields on the Norris bottoms of the American river, on what is known as the Haggin and Tevis ranch, have been noted for years, and I believe have produced six, eight or ten thousand tons of hay this year.

Nor are the alluvial hottoms alone used for the culture of this grass. The foothills ot the sierras are being brought into use by utilizing old mining ditches tor irrigation, where, on comparatively poor soil, they raise fifteen tons of alfalfa per acre. The plain lands have also been planted and irrigated by pumping with wind pumps, and I have seen twenty head of sheep kept on three-fourths of an acre of land thus irrigated, and well kept, too. In conclusiou, I would rather a nice horse of mine had never smelled alfalfa hay. W.

Sacramento, Jan. 22d.

[Our correspondent also notes that oranges can be grown as well in some of the northern counties as in Los Angeles, which we believe has been proved.—EDS. PRESS.]

Palace of Winter.

MESSRS. EDITORS:—Truly the face of nature has suddenly changed amongst the staid foothills. The landscape this morning is regally grand. Not a shrub, tree or sprig but has its dressing of snow—white, pure and still as a bride's garment. From four to six inches on the level lies the snow, with not a breath of air to stir its quiet repose. Never has such a sight been seen since the days of '49. The shades of evening brought the stranger in quiet flakes, until the trees, bushes and flowers were dressed in drapery of nature's purest white. The very sparrows sought the empty barns for security. The roaming cattle found the shed, wondering—in their silent way—if the Centennial celebration had really commenced. 'Tis a sight rarely seen in these parts, and reminds one of "winter's frozen palace" in Arctic regions. The pine trees are laden as never before and bend their leaves in humility. The poor sheep look sheepish with a load of snow on half grown wool. As the sun makes its appearance the whole landscape presents a scene resembling glittering gems of purest crystal. To-morrow is our Grange meeting. The distance from Sonora of many of the members interferes with the usual attendance, especially with such weather as we have had this wiuter. But the sun again will shine, the snow melt and enrich the ground, the days will lengthen and the barns of the industrious will be full.

Railroad.

The Central Pacific railroad engineers are engaged in surveying a railroad from Oakdale to Sonora. The citizens are very sanguine of future benefit arising from the advent of the iron horse. It will be a doubtful experiment except to the few. The farmer ot the foothills would have to compete with the farmer of the plains, and also have his taxation increased hy the issue of county bonds. But the inevitable must come. The slow coaches of the past must sooner or later give place to the progressive spirit of the present.

If it is not too late, we will bid you all a happy and financially prosperous New Year. 'Tis the year of great things in these United States, and so says the snow as it quietly presents itself as the "Palace of Winter."

JOHN TAYLOR.

Oakdale, Jan. 21st, 1876.

California and Colorado Loco Poisons.

The following paper was read before the California Academy of Sciences by Dr. A. Kellogg:

During the last generation, or about fifteen years ago, the poisoning of horses, cattle and sheep, by the cattle-weed, Pompous pea, or Pop pea, Menzie's milk vetch, (*Astragalus Menziesii*—Gray.) of the vicinity of San Francisco, came to our knowledge, and innumerable instances since, reported from all parts of the coast where it abounds, have only served to confirm these observations. How long it has been known to the native Californian, we are unable to say; but reiterated experience has taught sad lessons to independent observers everywhere. To some, however, the cause of their misfortunes is still a mystery. We have reason to know that there are also other similar causes of which we shall treat hereafter. This subject has been frequently brought before the Academy, but no record hitherto appears in the proceedings. This and some allied forms have been figured and published here, so that the public may be supposed to be somewhat familiar with it. The plant has much the appearance of bladder senna. As no chemical analysis has been made, nor any carefully noted experiments tried on animals, all we know is the serious results, often obscurely and imperfectly reported by the farmer, ranchero, herder and the shepherd.

Horses and cattle in this vicinity, we notice, shun it so long as the pasturage is good, but as it becomes bare and hunger impels, they bite it and become narcotized, or as we may say, intoxicated; they stagger and are unsteady in all their movements, act strangely and stupidly, and seem to lose their good horse sense or common brute sagacity, acting like a fool; hence the Mexican name "*loco*" given to it. At length they become thinner and cannot he restored to "condition"—they get to like the weed more and more, apparently infatuated, as the Sandwich Islander tor his ava (*Macropiper methysticum* in water), or the drunkard for his bottle; if only slightly "*locoed*" they are scarcely fit for general use, because so unreliable in perilous paths, or emergencies, acting so like tools, to the shame of all sensible animals. What is most remarkable with both this and the Colorado "*loco*" is the permanence of the impression, often lingering for many months or even years, half demented, until at length they die.

Death often supervenes suddenly; the effect is similar with horned cattle and sheep. This rattle weed is by no means confined to damp ground, but thrives equally on dry hills, in all soils. It has a tall and leafy stem or stems in bunches from a common perennial root, leaflets many paired (twenty or more), stipules at the base of the leaves trianguloid membranous—flowers, dirty pale yellowish or whitish tinged with red, mostly bent forcibly back. Pods inflated, about two inches long and thinly membranous, indeed so bladder-like that boys amuse themselves hy popping them—hence the name "Pop pea."

Herders are in the habit of "prospecting" their proposed pastures, especially for sheep, before moving their flock. A few, rather than shun or abandon their fields, have very sensibly made war on it with the grubbing hoe; others less cautious, or totally ignorant, have lost as high as 800 in one instance. I have been told that miners eat the beans with impunity, and some have contended that the poisoning is from worms on the weed—fungi also have been credited with it. Had we not an allied Colorado "loco" and the *Tephrosia*, or devil's shoestring of the South, which stupefy and intoxicate, besides others corroborating, some doubt might possibly be entertained.

Lambert's milk vetch of Colorado, *Oxytropis Lamberli*, Pursh. (*Astragalus Lamberli*, Spreng), consists of about six to eight varieties, for which, for all popular purposes, one description might suffice. Roots perennial; they are all stemless, or nearly so—not considering the flower or fruit scape as such; they grow in tufts or stool-like suckers, spring out by very short branches from the root crown; are more or less silvery, satiny, silky in every part; the common leaf stem is about three inches long, the upper oddly pinnate portion nearly equal, or the whole length of leaf about six inches, but much shorter than the flower scape stem; the pea blossom flowers purplish, or blue and white, violet or ochroleucous; leaflets, three to fourteen pairs, usually about eight or nine; stipular appendages at the base of the leaves, at or under the soil. Sheathing pods white, satiny, silky, with short, close-pressed hairs, erect, somewhat cylindric, one-half to one inch long, sharpening out at the point and partly two-celled.

Found from Saskatchawan to Texas, New Mexico, West to Rocky mountains, and Colorado to Washington Territory, and, according to Hooker, to Arctic America and Labrador.

Of this species ot *loco* we have no personal observation. Assistant Surgeon P. Moffatt, U. S. A., writing from Fort Garland, Col., says cattle men inform him that the weed abounds in damp grounds among grass, and poisons many horned cattle and horses; he is assured that atter eating it the animal may linger for many months or a year or two, but they invariably die from its effects. The animal does not lose flesh, apparently, but totters on its limbs and becomes crazy. While in this condition a cow will lose her calf and never find it again, and will not recognize it when presented to her. The eyesight becomes affected, so that the animal has no knowledge of distances, but will make an effort to step or jump over a stream or obstacle while at a distance off, but will plunge into it or walk up against it on arriving at it. The plant pointed out to him seemed to be related to the lupin.

OIL PAINT FOR FLOORS.—None but earth colors should be used in painting floors, and the rapid wearing off ot a coating ot oil paint on a floor is a sure indication that white lead has been mixed with the paint. This is generally the case, since it causes the paint to cover better and spread easier. Even the employment of a varnish that has been boiled with litharge should be avoided, and one boiled with borate of manganese preferred. It is also very important that the first coating should be perfectly dry before a second is laid on.

WATER-PROOF DRESSING FOR LEATHER.—A dressing tor rendering leather water-proof, made as follows, as proposed by Hager, has been found to answer the purpose: dissolve one part of india rubber in five parts of illuminating petroleum, by digestion for a day, and add twenty parts ot paraffine to the pasty mass and digest again for half a day, with repeated stirring, and then mix it with five parts of oil and five of tallow, and finally add ten of petroleum, or enough to give the mass the consistency of butter.

ARBORICULTURE.

Timber Growth.

Now that the praiseworthy work of tree planting is being pushed forward so vigorously, it is well to look forward to the wood and timber crop which will some day be cut in this State. Of course our experience in amonnt of growth will be something different from that in other regions; but until we have established better data of our own, it is interesting to know what has been done elsewhere. The *Western Farm Journal* furnishes the following figures:

Mr. H. H. McAffee, of the Iowa agricultural college, and also now Secretary of the American forestry association, gives the following as resnlts obtained in twenty years with the trees named below:

	Diam. of trunk. In.	Hight in ft.	Cord ft. in fuel.
Cottonwood (*monilifera*)	24	50	5¼
Cottonwood (*quadrangulata*)	28	50	6
Lombardy Poplar	23	60	4¼
Elm (*Americana*)	17	44	3¼
Elm (*Fulvia*)	18	39	3
Maple (*dasycarpum*)	18	39	3¼
Maple (*niger*)	11	37	1
Walnut (*cinerea*)	20	38	3¾
Walnut (*niger*)	14	37	2¾
Honey Locust	14	40	3
German Pine	14	33	2

Thus, actual tests show that cottonwood will make three-fourths of a cord; that even the slow growing blaok maple will make one-eighth of a cord; while the ash leaved maple (*negundo*) will make five-eighths of a cord to the tree in twenty years' growth.

The same trees if grown in groves thickly, would probably not make more than half the quantities named, which would in time come nearer to the figures as given above.

The following will, we think, be a safe estimate for groves or broad belts, in twenty years, planted, say four by four feet, and thinned out as their good deserves, to a maximum distance of sixteen by sixteen feet for the fast growing varieties, and eight by sixteen feet for the slower ones:

Cottonwood	70 cords.
Ash-leaved Maple	60 "
White Walnut (Butternut)	50 "
White Maple	44 "
Elm	43 "
Honey Locust (*gladitschia*)	35 "
White Pine	32 "
Black Walnut	30 "
Black Sugar Maple (*niger*)	20 "

We believe that we shall gain both time and material by introducing the Australian trees, which are now showing such rapid growth in this State; but both the beauty of our forests and the timber needs of our people domand a variety of growths. Just now, there is a movement toward the introduotion of the Eastern nut and shade trees, some ef which are enumerated in the tables above, and the reoords of their growth will be of immediate value to the tree cultor.

THE OSAGE ORANGE IN WAGON MANUFACTURE.—We have been shown at the carriage manufactory of William P. Miller a set of buggy wheels, the spokes of which were made of Osage orange wood. The timber was cut from Captain Weber's premises, on the peninsula, and the place formerly owned by Smith Whiting, corner of American and Lindsay streets, and has been seasoning for about three years. A specimen of the wood shown us was a trunk six inches in diameter and showing sixteen concentrio circles. The wood is susceptible of a high polish; and while it is not probably as tough as hickory, it is not so liable to shrink in dry weather or swell in wet weather. This latter quality makes it peculiarly adapted to our climate, although there is not enough grown here to manufacture extensively. In Arkansas and Texas, where this wood grows plentifully, it is commonly used in the manufacture of wagons.—*Stockton Independent.*

HORTICULTURE.

Manuring the Orchard.

A reader of the RURAL PRESS recently asked us to give some information concerning maintaining the productiveness of orchards. We are pleased to comply with the request by printing the following article on the subject, written by Alexander Hyde, a practioal orchardist, for the New York *Times*. His writing treats of the general principles involved, whieh are applicable wherever trees grow. He writes:

Too many seem to suppose that fruit trees need no manuring. Their corn and potatoes are well fed, but the orchard is left to shift for itself, and then they wonder that their apples are small and knotty, while another orchard half a mile distant, and on similar soil, uniformly bears large and fair fruit. The curse of barren orchards does not oome causless. Here and there an orchard is favorably located on a saline soil, where the decomposing rock furnishes inorganic manure in such quantities as to supply the wants of the trees for an indefinite time without artificial manuring. Happy is the orchardist who has such a site for his trees. Again, there are other orchards, looated at the base or on the foothills of mountains, that are constantly receiving the wash of these greater elevations, and are thus supplied naturally with all the elements of tree and fruit growth. We knew some orchards located like this, and they seem to thrive by neglect, and make their owners rich returns with little outlay. The soil does not look rich with organic food, but the spring freshets and all the great rains bring down to these trees the saline elements, potash, lime, soda, etc., for which they are so hungry, and in return for which they produce large and luscious fruit. The mountains form a shelter of a great rock to these orchards, and the great rocks by disintegration from the action of air, rain and frosts, furnish just the food to mako trees and fruit grow. The farmer who has land situated like this, where saline fertility is yearly washed upon it, had better make a specialty of fruit raising. Apples, pears, peaches, cherries, grapes, everything in the fruit line, will grow in such a locality without much artificial culture. Harvesting is the principal labor of the culturist so located.

Treatment Necessary.

There are comparatively few fruit cultivators who are so favorably located. Most orchardists must supply pabulum to their trees artificially, or the orchards will be short-lived and very unsatisfactory in their products while they do live. Treos cannot wander around like cows and sheep in search of food. They are confined to one spot, and though their roots forage more deenly and widely than is generally supposed, still if they are taxed in producing large orops of fruit yearly, they soon exhaust the inorganic food of the soil in which they grow. The organic food of plants—that which goes into the air when plants are burned—may be derived from the air again. The organic elements of plant life are few, mainly four, carbon, oxygen, hydrogen and nitrogen. The importance of these gaseous elements in the vegetable economy we aro not disposod to deny. Every cultivator of the soil from Cain's day to the present must have noticed how animal fertilizers give growth to every part of a tree or plant. There is no danger that the dung-hill will not be measurably appreciated. The actiou of saline manures is not so obvious, and it is only within the last half century that their natures have been esteemed at anything like their true value. Liebig did a great service to the orchardist by his analysis of the wood and fruit of the apple and other trees, and Prof. Emmons, of Williams College, followed up these investigations, showing conclusively that saline (iuorganic) substances form the skeleton or bonos of all vegetables as they more manifestly do in animals, and that these substances abound especially in fruit trees. It has long been known by observing farmers that the ashes of apple trees furnished a lye rich in potash, and were eagerly sought for by soap makers; still it did not occur to them that potash would be just the food on which apple troes would thrive, and the proper mode of manuring an orchard is not now so generally understood as it should be. We have little doubt that the trouble with our correspondent's orchard, and thousands of other old orchards, is that the soil has become exhausted of potash, carbonate and phosphate of lime, and other saline manures. He speaks of barn yard manures as producing little effect after a series of years. We recommend him to try a heavy dressing of wood ashes, say 100 bushels to the acre, and more will do no harm. In most parts of our country such a dressing can be given for $25 to $30—an expense no greater than that of a heavy dressing of barn yard manure.

We mention wood ashes because these contain all the inorganic elements which enter so largely into the composition of apples, and especially of apple-tree wood. Dr. Emmons' analysis shows that in the ash of apple wood three elements greatly preponderate, viz., potash, phosphate of lime, and carbonate of lime —in round numbers, sixteen parts potash, seventeen parts phosphate of lime, and eighteen parts lime. The bark of the apple furnishes an ash which is more than half lime. There is also a difference in the ash of the sap and heart wood, the latter giving more sulphuric and carbonic aid, but less phosphate of lime. The leaves of the apple tree also furnish an ash exoeedingly rich in saline matters.

What Trees Need.

To make it perfectly clear what inorganic substances the apple-tree needs for it growth, we give Prof. Emmons' exact analysis of the ash from the sap-wood of a sweet apple tree nineteen years old:

Potash	16.19	Phos. of magnesia	.20
Soda	3.11	Carbonic acid	29.10
Chloride of sodium	.42	Lime	18.63
Sulphate of lime	.05	Magnesia	8.40
Phosphate of iron	.80	Silica	1.60
Phosphate of lime	17.50	Organic matter	4.00
Total			100.00

To make the analysis complete we add Prof. Salisbury's report of the inorganio constituents of the fruit of the Rhode Island Greening:

Silica	1.412	Potash	38.440
Phosphate of iron	1.277	Soda	22.781
Phosphoric acid	11.664	Chlorine	2.272
Lime	4.421	Sulphuric acid	8.019
Magnesia	2.211	Organic matter	7.503

Every intelligent orchardist can see by a glance at the above analysis what his orchard wants to make his trees healthy and his fruit of first quality. Barn yard manure will not furnish these elements in sufficient quantity, unless the soil is aided by some disintegrating rock, rich in saline substances, or these are washed on by overflowing rivulets. When first planted the trees may grow finely and fruit well for a series of years, possibly twenty or thirty, the time depending on the amount of inorganic matter in the soil; but the leaves and fruit will finally exhaust the land of its saline elements, and the trees will begin to decay and the fruit to deteriorate.

As we have already intimated, wood ashes furnish all these inorganic constitutents of apples and apple-trees, and this too at a cheaper rate than they can be bought in any other form, or at least this has been the case. Wood ashes are, however, more appreciated than formerly, and may not be comeatable in some places at any price. In this case, we should recommend the application of shell-lime, ground bones, German potash salts, gypsum, and the compost made of leaf-mold as the basis. It will greatly aid the orchard if the leaves which fall annually can be kept from blowing away. In their decay they furnish just the food the trees and fruit require, and we have no doubt that if the apples and leaves could both be left to perish under the trees the orchard would continue to thrive indefinitely.

A Sweet Scented Product.

The editor of the San Luis Opisbo *Tribune* evidently believes in shedding fragrance over the paths of his readers. We quote the following interesting paragraph:

Our readers are all acqnainted with the delicate perfume known as "Patchouly," but few know from what it is made and where it comes from. It is the essential oil from the seeds of a plant, native of India, known as *Pogostemon Patchouly*. Owing to the scarcity of seeds in the Parisian markets, samples were sent to Mr. Kastan, in Acapulco, Mexico, for the purpose of introduciug its culture there, as it was believed so nearly resembled that of India, it would thrive as well as on its native soil, and thus increase the supply. Mr. L. Kastan, who was at that time a resident of Acapulco, in the employ of his father's house, put some seeds into his trunk to perfume its contents. Last year after a lapse of two years he came across these seeds and gave them to Mr. Pepperman to plant, as an experiment. Mr. Pepperman divided the seeds with us and we succeeded in raising three plauts, which, though planted late, have made a good growth, and ripened about an ounce of seed, which have the same rich odor as the old stock. From this experiment we are satisfied that *Patchouly* may be cultivated profitably in almost any part of California. Our experiment is not a fair test, as the soil upon which the plants were grown is a stiff, cold adobe, when it onght to have been a warm, sandy loam, like the rich bottoms of the Arroyo de Sau Luis and the Arroyo Grande. We have given Mr. Haines, superintendent of the Western Uuion telegraph, who lives in Los Angeles, some of the seed to experiment with in that semi-tropical locality. We will distribute among our subscribers who have soil adapted to its culture, seeds of this rare and most valuable plant, upon the consideration that they give it culture commeusurate with its importance. It is said to be perennial, but we shall be able to determine better of its habits in another year. We believe that this will open a new and valuable industry to the citizens of our State, and it should be fostered in its infancy. These three plants, growing in the grounds of G. W. Mauk, Esq., are probably the first and ouly ones ever grown in the United States.

THE DAIRY.

Butter Making.

There is great need of the improvement of the butter produot of this State. Just now the market is well supplied, and there is marked discrimination as to quality. The dairyman who suffers least from an abundant supply is the one who produces the best article. He holds his customers and suffers but a slight decline, while common and poor stuff is slaughtered, and the producer is at a loss. He who is oontent to make butter thonghtlessly, and with no study as to its quality and its marketable excellence, sacrifices his own prosperity. We find in a recent issue of the San Benito *Advance* an article on butter making, by a practical dairyman, whioh is so full of the teachings of correct practioe on the different points advanced, that we reproduce it for onr readers. There are ether points involved, which we shall comment upon from time to time, but the following is correct and valuable so far as it goes:

It costs no more to make a good article than it does a poor one. For butter making, it is important to have plenty of good, puro water for the cows to drink, and for use in the dairy. The milk room should be so constructed that the temperature can easily be regnlated, so that the milk can be kept in good condition without thickening until it has stood about thirty-six hours. It is very important that the milk-room should be kept at an even temperature of sixty-two degrees. The cream should be taken off at least as soon as the milk begins to thicken on the bottom of the pans. Be very careful about this part of the work, since if the cream is allowed to remain longer, the butter will lose, not only in quality but in quantity. The very poorest condition of butter arises from a

Neglect of Removing the Cream

Before the milk begins to form whey, and keeping the cream too long in cans before churning. Cream should never be allowed to remain in cans more than one day, and the sooner it is churned the better. If the cream is allowed to remain on the milk until there is a separation of curd and whey, then little partioles of curd will rise up and mingle with the cream and also with the butter. This curd gives the butter a cheesy flavor, and it will soon beoome rancid and unfit for table use. In tempering the cream before churning, you should be governed by the temperature of the atmosphere surrounding the place of ohurning. If the air is very warm some allowance should be made and the cream should be tempered down to about fifty-six or fifty-seven deg., but ordinarily in this climate cream put into the churn at a temperature of sixty-one or sixty-two deg. will bring good solid butter. Water, either hot or oold, should never be turned into the cream to temper it; the one melts the cream and the other chills it. If water is used for that purpose the can containing the cream should be placed in a larger vessel, or tub, containing water, warm or oold, as the case may require, and the cream should be stirred gently to keep the outer edges from being either chilled or melted. The stirring should be continued until an even temperatnre is obtained through the entire mass. When the butter is well formed in the churn, draw the buttermilk; then turn in pure cold water, sufficient to riuse the butter thoroughly. Take up the butter and spread it upon the butter-worker, work it gently and turn on cold water until all the buttermilk is washed out, then salt with pure salt; if for immediate use, one pound to twenty of butter; if for packing, one pound to sixteen of butter. Work it slowly until the salt is thoroughly and evenly absorbed. If the salt is not evenly absorbed the butter will not be of uniform color.

Do Not Work too Much Nor too Fast,

For in doing so you destroy the grain and the butter becomes salvy and lard-like in its texture. Let it stand or put it away in the tray for twenty-four hours, then work it enough to remove whatever buttermilk there may be or surplus brine. Mould it into rolls, set the rolls away for twenty-four hours, or until they become firm, then clothe it with new white butter cloth, cut wide enough to lap over the ends of the roll. Butter ought not to be taken to market rolled up in brown house lining or or old cloth. Cloth should be cut in pieces of the right size and dipped or saturated in brine and applied to the roll when dripping wet.

Butter Should Never Come

In contact with the bare hand. When in bulk it can be handled with a ladle and a flat paddle very oonveniently, and the rolls handled nicely with two of these flat paddles. The farmer who milks from three to five cows may say that the above rules are very good for a large dairyman to follow, but excuses himself by saying that he cannot afford to go to all this trouble. But I will say that he is the very man I am talking to and it is for his benefit that I write the above suggestions. There is no other article of

Produce that Speaks for itself,

And reveals the neatness or exposes the slovenliness of its prodncer to the public gaze so readily as butter. Mrs. A brings her ten rolls of butter to the store; her butter is fresh, sweet, hard, and neatly clothed, her merohant allows her the highest market price for it, say forty cents per pound. The town customers see this bntter, and want to know who made it, the clerks tell them that it is Mrs. A's butter; they buy a roll. Now comes in Mrs. B. with ten rolls likewise. She declares her butter is good, and the clerk dare not tell her differently, when in fact chunks of lard alloyed with a little tallow, neither uniform in size or shape, with a strip of brown house lining rouud the middle, would be just as inviting as what she declares to be good butter. She demands as much for it as Mrs. A; finally, rather than offend her, the merchant is generous enough to allow thirty cents per pound, or sixty cents a roll, and then offers it to his customers at fifty cents. But it don't take at that, when Mrs. A's butter sells readily at eighty cents. Figures may indnce Mrs. B to try and do better hereafter. Now suppose there is a differenoe of ten oents a pound in the price, as shown above, when there is in fact more than that difference in quality. Allowing each oow to make 125 pounds during the season, (and a cow that will not do this is uot a good one for buttor-making,) this gives a margin of $12.50 every year for each cow. Just take five or ten cows as a basis and mako the calculation at your leisure and see what it will amount to in ten years. Is not this a handsomo profit and worth saving?

THE ear of a fish, almost always entiroly within the craninm, on the sides of tho brain, consists essentially of a vestibule and three semi-circular canals, which receive the vibrations of the integuments and cranial walls; there is rarely anything that can be called an external ear, drum, or tympanic cavity; loud, sudden, and strange sounds frighten fish; in ancient, and even in modern times, they have been taught to come and rooeive food at the tinkle of a bell, or the pronunciation of pet names.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is at No. 351 Market St.

Grangers' Business Association of California.

Notice of Annual Meeting of Stockholders.

The Annual Meeting of the Stockholders of the Grangers' Business Association of California, for the election of Directors, will be held at the office of the corporation, in the building at the north-east corner of California and Davis streets, in the city and county of San Francisco, on Wednesday, the sixteenth day of February, 1876, at the hour of ten o'clock in the forenoon of that day.

T. J. BROOKE, Vice-President. WILLIAM VANDERBILT, Secretary.

New Constitution and By-Laws.

We have the amended form of the Constitution and By-Laws and Rules of Order of the State Grange: the Declaration of Purposes, Constitution and By-Laws of the National Grange, and blank form of Subordinate Grange Constitution and By-Laws, now printed in one pamphlet. Granges supplied at five cents per copy, post paid. The special code of Subordinate Granges printed and bound in the above form for $9 per 100 or upwards, according to amount of changes required. For all over 100 copies, 4 cents per copy.

Grange Directory.

[Secretaries of Grangee will please notify if incorrect —EDS. PRESS.]

California State Grange.

OFFICERS FOR 1875-7.

Master—J. V. WEBSTER, Brooklyn, Alameda Co.
Overseer—T. A. GAREY, Los Angeles, Los Angeles Co.
Lecturer—J. W. A. WRIGHT, Borden, Fresno Co.
Steward—NELSON OARR, Bennett Valley, Sonoma Co.
Assistant Steward—M. WOODHAMS, La Honda, S. Mateo Co
Chaplain—J. M. HAMILTON, Gnenoc, Lake Co.
Treasurer—J. B. OARRINGTON, Denverton, Solano Co.*
Secretary—AMOS ADAMS, Franklin, Sacramento Co.*
Gate Keeper—J. B. SAUL, Napa, Napa Co.
Ceres—MRS. MARY E. IVENS, Cambria, S. Luis Obispo Co.
Pomona—MRS. S. C. BAXTER, S F., San Francisco Co.
Flora—MRS. VITAL E. BANGS, Modesto, Stanislaus Co.
Lady Assistant Steward—MRS. NELSON CARR, Bennett Valley, Sonoma Co.
*P. O. Address, for official business, San Francisco.

Executive Committee:

J. V. WEBSTER, Chairman, Brooklyn, Alameda Co.
A. D. LOGAN, Princeton, Colusa Co.
H. M. LEONARD, Santa Clara, Santa Clara Co.
J. M. THOMPSON, Suscoi, Napa Co.
W. S. MANLOVE, Sacramento, Sacramento Co
WM. SIMS, Buckeye, Yolo Co.
O. H. COOLEY, Cloverdale, Sonoma Co.

RECENTLY APPOINTED DEPUTIES.—The following deputies have lately been appointed by Worthy Master Webster:

COUNTY.	DEPUTY.	POST OFFICE.
Alameda.	Thos. Keller.	Haywards.
Butte.	W. M. Thorp.	Chico.
Colusa.	Jacob Meyers.	Graud Island.
Contra Costa.	Nathaniel Jonee.	Lafayette.
Lake.	H. A. Oliver.	Gnenoo.
Marin.	H. F. Taft.	Nicasio.
Mendocino.	Thos. Mewhinny.	Pomo.
Mendocino.	W. D. White.	Ukiah.
Merced.	J. L. Crittenden.	Special Deputy
Merced.	H. B. Jolly.	Merced.
Nevada.	H. S. Hatch.	Indian Springs.
San Joaqnin.	W. L. Overhiscr.	Stockton.
San Joaquin.	J. W. Kerney.	
San Mateo.	M. Woodhame.	La Honda.
San Mateo.	J. C. Steel.	Pescadero.
Santa Barbara.	O. L. Abbott.	Santa Barbara.
Santa Clara.	J. A. Wilcox.	Santa Clara.
Siskiyou.	J. S. Mathews.	Fort Jones.
Solano.	R. C. Hele.	Suisun.
Solano.	J. C. Merryfield.	Dixon.
Sonoma.	B. B. Capell.	Healdsburg.
Sonoma.	G. W. Davie.	Santa Rosa.
Sonoma.	W. W. Chapman.	Petaluma.
Ventnra.	Milton Waesen.	San Buenaventura

Thos. H. Merry, General Deputy for State.

General Deputies.

Alameda.	Ezra S. Carr.	Oakland.
Fresno.	J. W. A. Wright, (W. L.) Borden.	
San Francisco.	Amoe Adams, (W. S.)	40 California St.
Solano.	John B. Carrington,	Denverton.

NEVADA.

State of Nevada.	A. J. Hetch,	Reno.
Douglas.	J. R. Livingeton.	Genoa.'
Esmeralda.	Kimber Cleaver.	Mason Valley.
Humboldt.	B. F. Riley.	Paradise Valley.
Elko.	J. A. Tinker.	Elko.

Farmers desiring to organize Grangee can apply to J. V. Webster, (W. Master,) Brooklyn, Alameda Co., Amos Adame, (W. Sec'y,) 40 California street, S. F., or to the nearest Deputy to their locality.

Pomona Granges.

No. 1.—Anaheim, Los Angeles.
No. 2.—Fresno, Fresno.
No. 3.—Snisun, Soleno.
No. 4.—Santa Rosa, Sonoma.
No. 5.—Napa, Napa, J. M. MAYFIELD, M.; J. W. WARD, S.

Surrenders and Consolidations.

CHARTERS SURRENDERED.—No. 58, Union; No. 154, Point Reyes; No. 181, Newville; No. 186, Vineland; No. 191, Walnut Grove; No. 229, San Jacinto.

CONSOLIDATIONS.—Mayfield, No. 186 with Santa Clara, No. 71; Sheridan, No. 200 with Lincoln No. 187; Fort Jones, No. 220 with Etna, No. 219.

Idaho Subordinate Granges.

Grange and P. O.	Master.	Sec.
ADA COUNTY.		
BOISE, Boise City.	L. F. CARTEE.	GEO. D. ELLIS
DIXIE, Middleton.	T. B. GESS.	B. F. YOUNG
DRY CREEK, Boise City.	H. L. OWBINOE.	J. W. HERRALD
EMMETTSVILLE, Em'tsville.	J. BENNETT.	W. CAVANAH
EUREKA, Boise City	— SMITH.	— —
HORSE-SHOE BEND, Em'tsville.	— ROEB.	— —
LOWER BOISE, Lower Boiso.	— CHAPMAN.	— —
MIDDLETON, Middleton.	J. WRIGHT.	C. CHAPMAN
MANN'S CREEK.		
PAYETTE, Falk's Store.	SAMSON REED.	J. E. FOUTS
SAI-UBRIA, Indian Val	J. G. CURTIS.	ALEX. ALLISON
SHELTON, Boise City.	JOS. WILLSON.	DAVID HERON
STARR, Boise City.	D. W. TOUCH.	C. I. SIMPSON
WEISER, Weiser.	N. HAVEN.	A. F. HILT
NEZ PERCE COUNTY.		
CHARITY, Mt. Idaho	W. C. PEARSON.	J. H. ROBINSON
NEZ PERCE, Pine Cr'k.	W. C. BRATTAIN.	D. J. HAYFIELD
PARADISE, Paradise.	J. A. EMERY.	WM. HOWARD

California Subordinate Granges.

[This list contains the names of Masters and Secretaries so far as reported to us, elected to serve during the year 1876. In Granges not reported we continue the names of last year's officers. Secretaries and others will greatly oblige us by making needful corrections.]

EXPLANATIONS.—The P. O. address is given only where it is different from the name of the Grange.

Grange and P. O.	Master.	Sec'y.
AMADOR COUNTY.		
PLYMOUTH.	J. SALLEE.	S. C. WHEELER
JACKSON VALLEY.	W. H. PROUTY.	J. C. HAMRICK
SOUTH SUTTER.	THOS. BOYCE.	G. B. RICHARDS
ALAMEDA COUNTY.		
CENTERVILLE.	J. M. HORNER.	M. R. STURGES
EDEN, Hayward's.	J. RUSSELL.	WM PEARCE
LIVERMORE.	D. INMAN.	O. R. OWENS
TEMESCAL, Oakland.	O. BAGGS.	JOHN COLLINS
BUTTE COUNTY.		
OHICO.	A. HENRY.	H. W. HASKELL
EVENING STAR, Nelson.	A D NELSON	A M WOODRUFF
HAMILTON, Biggs St'n.	T. A. ROGERS.	ANSON BROWN
NORD.	J. B. CLARK.	MRS. C. A. COLBY
CALAVERAS COUNTY.		
CALAVERAS, J'ny Liud.	M. GREGORY.	MRS. K. RODGERS
COLUSA COUNTY.		
ANTELOPE VALLEY.	H. A. LOGAN.	P. PETERSON
CENTER, Colusa.	D. BEBEE. MRS.	CARRIE WEBLEY
COLUSA, Colusa.	J. R. TOTMAN.	R. JONES
FRESHWATER, Colusa.	P. S. PERDUE.	R. A. WILSEY
FUNK SLOUGH, Colusa.	G. H. AREL.	IDA FULTON
GRAND ISLAND.	J. MEYERS.	H. D. STRAWTHER
PLAZA, Jacinto.	M. KENDRICK.	J. W. SOWERS
PRINCETON.	R. R. RUSH.	P. H. SCOTT
SPRING VALLEY.	B. LUCAS.	T. SINGLETON
WILLOWS, Princeton.	J. R. THOXELL.	L. D. BROWN
CONTRA COSTA COUNTY.		
ALHAMBRA, Martinez.	J. STRENTZEL.	MRS. M. B. LANDER
ANTIOCH.	I. WILLS.	A. SELLERS
DANVILLE.	D. N. SHERBURNE	MARY LYNCH
POINT OF TIMBER.	H. C. MCOABE.	E. W. CAREY
WALNUT CREEK.	M. S. GRAY.	R. M. JONES
DEL NORTE COUNTY.		
ELK VALLEY, Cres'nt Cy.	W. R. REXFORD.	W. B. SMITH
NORTH STAR, Smith's Riv.	J. B. BAILEY.	W. C. BAILEY
EL DORADO COUNTY.		
CLARKSVILLE.	P. R. WILLOT.	I. MALTBY
EL DORADO.	J. M. B. WEATHERWAX	MISS C. J. SHELTON
PILOT HILL.	JOHN BISHOP.	A. J. BAYLEY
PLACERVILLE	WM. WILTZE.	F. M. DICKERHOFF
SUTTER MILL, Coloma.	J. G. O'BRIEN.	H. MAHLER
FRESNO COUNTY.		
ADAMS, Big Dry Creek.	T. P. NELSON.	T. H. WYATT
BORDEN.	E. S. RUSSELL.	CHAS. T. BADGER
FRESNO, Fresno City.		
GARRETSON, King's R.	JOS. BUBNS.	H. C. HIGBY
KINGSBURG, W'tville	J. W. TRABER.	W. LEVERMORE
RISING STAR, Panochi.	I. N. CANFIELD.	G. E. HINKLEY
RIVERDALE, Fresno City.	C. H. WELLING.	H. PRICE
SYCAMORE.	A. O. BRADFORD.	J. A. ALLEN
HUMBOLDT COUNTY.		
ELK RIVER, Eureka.	T. MEYER.	MISS E. M. WILLIAMS
FERNDALE.	J. O. DUNGAN.	E. C. DAMON
KIWELATTAH. Arcata.	G. B. KNEELAND.	C. H. DANIELS
MATTOLE, Petrolia.	S. GOFF.	DAVID SIMMONS
ROHNERVILLE.	JOEL BURNELL.	S. STRONG
TABLE BLUFF.	B. W. POLLARD	M. FERRIER
INYO COUNTY.		
BISHOP'S CREEK.	G. W. MCCROSKY.	G. COLLINS
INDEPENDENCE.	J. W. STMMES.	W. A. CAESIDY
LONE PINE.	J. J. MCCALL.	A. H. JOHNSON
KERN COUNTY.		
BAKERSFIELD.	O. B. ORM-BY.	J. T. leh
CUMMINGS' VAL'Y, Tehaichipa.	G. THOMPSON.	T. YATES
LINN'S VAL'Y, Glenville.	C. LINDSAY	E. SMITHWICK
NEW RIVER, Bakersfield.	W. NEWTON.	S. G. BAKER
PANAMA, Bakerefield.	F. P. MAY.	
TEHAICHIPA.	M. A. TYLER.	EMMA PREWETT
WELDON.	J. B BATZ.	JAMES SWAN
LAKE COUNTY.		
GUENOO.	J. M. HAMILTON.	T. W. WHITINGTON
KELSEYVILLE.	J. H. RENFRO.	T. ORMISTON
LAKEPORT.	CYRUS CUTLER.	J. W. EVERETT
LOWER LAKE.	C. L. WILSON.	LUCY S. WILSON
UPPER LAKE.	D. V. THOMPSON.	D. Q. MCCARTY
LASSEN COUNTY.		
LAKESIDE.	G. H. BANGHAM.	E. T. SLUCKFORD
LASSEN, Susanville.	J. JENSEN.	J. N. LONG
LOS ANGELES COUNTY.		
ALLIANCE, El Monte.	J. D. DURFEE	E. M. HASKALL
AZUSA, El Monte.	IRA S. THOMPSON.	J. C. PRESTON
COMPTON.	C. W. COLLINS.	F. V. KIMBLE
EL MONTE, El Monte.	J. T. GORDON.	A. H. HOYT
ENTERPRISE, L. An'gl's.	B. F. CLARK.	E. S. BUTTERW'RTH
EUREKA, Spadra.	C. BURDICK.	A. O. GREEN
FAIRVIEW, Anaheim.	DAVID EVEY	J. M. GUINN
FLORENCE, Los Ang'l's.	J. R. TANSEY.	R. RANNEY
FRUITLAND, S'ta. Ana.	N. O. STAFFORD.	E. L. RUSSELL
LOS ANGELES.	S. A. WALDRON.	J. Q. A. STANLEY
LOS NIETOS.	F. B. GRANDIN.	W. S. REAVIS
NEW RIVER, L. Nietoe.	W. NEWTON.	S. G. BAKER
ORANGE.	L. J. LOCKUART.	J. W. ANDERSON
SILVER, L. Nietoe.	W. P. MCDONALD.	DORA SKIDMORE
SPADRA.	A. T. CURRIER.	JOS. WRIGHT
VINKLAND, Tustin O.	G. W. FREEMAN.	EUGENE STINE
WESTMINSTER.	G. C. MACK.	W. F. POOR
MARIN COUNTY.		
NICASIO.	P. K. AUSTIN.	J. W. NOBLE
TOMALES.	O HUBBELL.	R. H. PRINCE
MENDOCINO COUNTY.		
CAHTO.	J. J. TROMAS.	J. H. CLARKE
LAUREL, Boonville.	W. PRATHER.	M. O KING
LITTLE LAKE.	B. MAST.	J. G. SNELL
MANCHESTER.	W. H. OURETON.	J. LANE
POMO.	J. MEWHINNEY.	E. V. JONES
POTTER VAL'Y.	H. W. BAKER. MRS. A. H.	SLINGERLAND
ROUND VALLEY, Covelo.	P HANDY.	WILL TODD
SANEL.	A. MARSHAL.	JOSEPH A. KNOX
UKIAH.	A. O. CARPENTER.	W. D. WHITE
MERCED COUNTY.		
BADGER FLAT, Los Banos.	J. STOCKTON.	W. F. CLARKE
COTTONWOOD.	J. L. ORITTENDEN.	J. M DALEY
HOPETON	JOHN RUDDLE.	T. EGLESON
LOS BANOS.	S. A. SMITH.	JOHN H. BEAVER
MERCED	R. S. CLAY.	M. HEBRIN
PLAINSBURG.	P. Y. WELCH.	T. J. E. WILCOX
SNELLING.	G. C. BAKER.	E. KELSEY
MODOC COUNTY.		
MODOC, Willow Ranch.	E. V. COFFER.	M. WAID
MONTEREY COUNTY.		
MORNING STAR.	Castroville. J. MCDONALO.	F. BROWN
SALINAS.	P. MATTHEWS.	CLARA WESTLAKE
NAPA COUNTY.		
BERRYESSA, Monticello.	J. W. SMITH.	MRS. STAFFORD
NAPA, Napa City.	D. GRIDLEY	HARRY HASKELL
POPE VALLEY.	C. A. BOOTH.	SALLIE BAYNE
RUTHERFORD, Y'ntville.	G. S. BURREGE.	H. W. CRABB
ST. HELENA.	J. LEWELLYN.	CHAS. A. STORY
YOUNTVILLE.	T. L. GRIGSBY.	F. GRIFFIN
NEVADA COUNTY		
GRASS VALLEY.	CHAS. BAKER.	T. W. STEPHENS
INDIAN SPRING.	H. S. HATCH.	MRS. E. M. HORTON
MAGNOLIA, Grass Val.	E. M. DENTON.	P. A. WOMACK
PLACER COUNTY.		
LINCOLN.	A. J. SOULE.	J. S. PHILBRICK
NEWCASTLE.	J. H. MITCHELL.	W. A. DONALDSON
ROSEVILLE	W. H. MURRY.	N. MERTES
PLUMAS COUNTY.		
INDIAN VALLEY, Taylorv'le.	E. HOSELKUS.	G. BOYDEN
BECKWORTH, Plumas	A. J. SPOON.	T. BLACK
SACRAMENTO COUNTY.		
AMERICAN R., Patterson.	J. A. EVANS.	E. G. MORTON
COSUMNES, Sheldon	J. A. ELDER.	J. H. ATKINS
ELK GROVE.	JULIUS EVERSON.	DELOS GAGE
ENTERPRISE, Brighton.	J. M. BELL.	A. ROOT
FLORIN.	L. H. FASSETT.	W. SCHOLEFIELD
FRANKLIN.	W. JOHNSON.	S. G. BRADFORD
GALT.	A. B. BRYANT.	J. L. FIFIELD
GEORGIANA, Rio Vista.	J. POOL	J. WORSHAM
SACRAMENTO.	G. W. HANCOCK.	G. T. RICH
SHERMAN I. Emmaton.	A. J. BIGELOW.	E. H. BOGGS
SAN BENITO COUNTY.		
MOUNTAIN, San Benito.	G. BROWN.	W. K. GOFF
HOLLISTER.	M. POMEROY.	J. D. FOWLER
SAN BERNARDINO COUNTY.		
RINCON, Chino.	T. W. STANFIELD.	JOHN TAYLOR
RIVERSIDE.	W. B. RUSSELL	G. W. GARCELON
SAN BERNARDINO.	GEO. LORD.	T. D. HENRY
SAN DIEGO COUNTY.		
BALENA.	C. O. TUCKER.	MRS. C. O. TUCKER
BEAR VALLEY.	H. D. DINWIDDIE.	C. H MOSELEY
BERNARDO.	Z. SIKES.	T. DUNCAN
NATIONAL RANCH.	F. A. KIMBALL.	F. M. KIMBALL
POWAY.	J. F. CHAPIN.	E. D. FRENCH
SAN LUIS REY.	M. E. ORMSBY.	L. J. CROMBIE
SAN JACINTO.	T. D. HENRY.	MRS. M. COLLINS
SAN JOAQUIN COUNTY.		
ATLANTA, Ripon.	P. VISHER.	W. J. CAMBELL
CASTORIA, Stockton.	F. J. WOODWARD.	JESSIE AVERILL
COLLEGEVILLE.	A. M. MCINTOSH	L. R. CRALMERS
ELLIOTT.	H. H. WEST.	N. S. MISNER
FARMINGTON.	I. R. HENRY.	E. O. LONG
LIBERTY, Acampo.	T. M. TRACY.	J. SCHOMP
LINDEN.	D. LEWIS.	JAMES WARLEY
LOCKEFORD.	E. P. MCGERLE.	F. C. MCGERLE
LODI.	J. M. FOWLER.	MRS. A. W. GOVE
RUSTIC, Lathrop.	H. MOORE.	H. B. DUNN
STOCKTON.	W. G. PHELPS	JULIA ALLEN
WASHINGTON.	A. A. VAN SAAT.	C. BAMERT
WEST S. JOA'N, Ellis.	O. D. NEEDHAM.	J. QUACKENBUSH
WILDWOOD.	E. D. MORRISON.	W. M. MUNCEY
WOODBRIDGE.	EZRA FISKE.	J. D. HUFFMAN
SAN LUIS OBISPO COUNTY.		
ARROYO GRANDE.	W. H. NELSON.	B. J. WOOD
CAMBRIA.	O. H. IVINS.	H. OLMSTEAD
MORRO CITY.	A. J. MOTHERSEAD	H. Y. STANLEY
OLD CREEK.	J. FLOOD.	A. L. TOLLE
PASO ROBLES.	H. W. RHYNE.	JOHN THOMSON
SAN LUIS OBISPO.	GEO. STEELE.	A. T. MASON
SUMMIT, Paso Robles.	A. SMITH.	A. T. FOSTER
SAN MATEO COUNTY.		
CRESCENT, H M Bay.	J. B. GILCHRIST.	A. G. WOODS
LA HONDA.	M. WOODHAMS. MRS.	J. E. WOODHAMS
OCEAN VIEW.	I. G. KNOWLES.	H. E. GRAVES
PESCADERO.	J. C STEELE.	E. LEIGHTON
SAN MATEO.	A. F. GREEN.	C. E. ROWE
SANTA BARBARA COUNTY.		
CARPINTERIA.	O. N. CADWELL.	M. WHITFORD
CONFIDENCE, Guadelupe.	J. MORSE, JR.	F. N. COCKE
LOMPOC.	WM. JACKSON.	W. W. BROUGHTON
SANTA BARBARA.	O. L. ABBOTT.	V. F. RUSSELL
SANTA MARIA.	S. G LOCKWOOD.	S. J. NICHOLSON
SANTA CLARA COUNTY.		
GILROY.	C. WENTZ.	J. H. ADAMS
SAN JOSE.	C. T. SETTLE.	H KEESLING
SANTA CLARA.	J. A. WILCOX.	A. B. HUNTER
SARATOGA.	WILLIS MORRISON	MISS JENNIE FARWELL
SANTA CRUZ COUNTY.		
BEN LOMOND, S'ta Cruz.	JOHN BURNS.	JAS. BURNS
PAJARO, Watsonville	D. CRAWFORD.	L. B JOHNSON
SANTA CRUZ.	G. C. WARDWELL.	T. PILKINGTON
WATSONVILLE.	J. M. RIPLEY.	O. S. TUTTLE
SHASTA COUNTY.		
COTTONWOOD	C. P. DUNHAM.	JOHN BARRY
MILLVILLE.	E. WAGNER.	F. R. BROWN
READING.	J. F. DINSMORE.	F. MICHAELSON
SIERRA COUNTY.		
SIERRA VALLEY.	B. F. LEMMON.	J. G. LEMMON
LOYALTON.	F. M WEST.	W. C. COLLINS
SISKIYOU COUNTY.		
ÆTNA.	H. S. MATTHEWS.	L. S. WILSON
MT. BOLIVAR, Callahan's R.	R. M HAYDEN.	C. F. BOYCE
SOLANO COUNTY.		
BINGHAMPTON.	A. BENNETT.	G. A. BROWN
DENVERTON.	R. H. BARKWAY.	G. C. ARNOLD
DIXON.	G. M. DUDLEY.	MARTHA MCBRIDE
ELMIRA.	J. MCCROERY.	J. A. CLARK
POMONA.	R. O. HAIL.	J. R. MORRIS
MONTEZUMA, Col'nsville.	O. M. ISH.	C. K. MARSHALL
RIO VISTA.	J. W. CAMERON.	A. DOSIER
ROCKVILLE.	J. R. MORRIS	A. T. HATCH.
SUISUN VALLEY.	R. O. HAILE.	F. MCMULLEN
VACAVILLE.	R. C. MARSHALL.	A. P. COBURN
VALLEJO.	J. F. DEMING	G. C. PEARSON
SONOMA COUNTY.		
BENNETT V. S'ta Rosa.	A. BURNHAM	G. N. WHITAKER
BLOOMFIELD.	WM. H. WHITE.	A. B. GLOVER
BODEGA.	E. S. PERINE.	E H. CHONEY
CLOVERDALE.	CHAS. H. COOLEY.	F. W. DAVENPORT
GEYSERVILLE.	A. STITES.	W. H. ADAMSON
HEALDSBURG.	B. B. CAPELL.	W. N. GLADDEN
PETALUMA.	W. W. CHAPMAN.	FREMAN PARKER
SANTA ROSA.	A. W. DAVIS.	JULIUS ORT
SEBASTOPOL.	L ROSS.	W. J HUNT
SONOMA.	WM. MCP. HILL.	J. A. POPPE
TWO ROCK.	JOHN R. DOSS.	J. O. PURVINE
WINDSOR.	E. H. BARNS.	EDGAR LINOSEY
STANISLAUS COUNTY.		
BONITA Crow's L'd'g.	J. W. TBEADWELL.	A. B. CROOK
CERES.	H. W. BROUSE.	R. R. WHITMORE
COTTONWOOD.	W. E. RIDDLE.	O. BABCOCK
GRAYSON.	WM. LOVE.	A. O. LANDER
OAK DALE.	C. R. CALLENDAR	C. B. INGALLS
ORISTIMBA, Hill's F'ry.	E. H. ROBISON.	B. D. NOXON
SALIDA, Modesto.	J. D. REYBURN.	J. P. VINCENT.
STANISLAUS, Modesto.	V. E. BANGS.	B. B. ROBINSON
TURLOCK.	C. T. CAMPBELL	W. S. ROBINSON
WATERFORD.	R. R WARDER.	W. U. OOLLINS
SUTTER COUNTY.		
NORTH BUTTE.	B. R. STILLMAN.	J. G. DOW
SOUTH SUTTER.	THOS. BOYD.	GEO. B. RICHARDSON
SUTTER, Meridian.	W. C. SMITH.	S. H. MOORE
YUBA CITY.	B. F. WALTON.	MOLLY HARDY
TEHAMA COUNTY		
FARMINGTON.	C. F. FOSTER.	C. O. CRITTENDEN
NEW SALEM, Paskento.	O. HARRIS.	W. T. HARRIS
RED BLUFF.	R. H. BLOSSOM	C. E. FONDA
TULARE COUNTY.		
CHRISTMAS, Visalia.	S. H. BLOOD.	J. PERRIN
DEEP CREEK.	A. W. MATHEWSON.	W. G. PENNEBAKER
FRANKLIN, Grangeville.	T. S. HARRINGTON.	G. W. CAMP
LAKE, Grangeville.	M. S. BABCOCK.	M. E. SIMMONS
KEYSTONE.	EBASTUS AXTELL.	N. R. GOLDEN
MANZANITA.	J. K. CRAMER.	MRS. M. C. BECKER
MOUNT WHITNEY.	A. F THOMPSON	G. W. DUNCAN
MUSSEL SLOUGH.	W. UNDERWOOD.	W. H. BATTENFELD
TULARE.	P. S. TRACY.	J. A. GOODWIN
TULE RIVER, Port'ville.	E. H. BAKER.	JENNIE GILMER
VISALIA.	J. M. GRAVES.	W. CURTIS
WOODVILLE.	J. A. SLOVER.	J. H. GRIMSLEY
TUOLUMNE COUNTY.		
SONORA.	G. C. SOULSBY.	J. W. PURDY
VENTURA COUNTY.		
OJAI, Nordhoff.	C. E. SOULE.	J. HOBART
PLEASANT VALLEY.	W. P RAMNER.	W. O. WOOD
SAN PEDRO, Huchcme.	J. Y. SAVIERS.	D D. DENURE
SATICOY.	E. B. HIGGINS.	MISS A. BAKER
SESPE, San B'ventura.	F. A. SPRAGUE.	H. WARRING
VENTURA, Sao B'ventura.	C. S. PRESLE.	J. M. BROOES
YOLO COUNTY.		
ANTELOPE.	W. J. CLARK.	T. F. HUGHES
BUCKEYE.	WM. SIMS.	MRS. E. A. MOODY
CACHE CREEK.	S. B. HOLTON.	E. R. HOLTON
CAPAY VALLEY.	J. N. RHODES.	HOWLAND BOWER
DAVISVILLE.	J. O. CAMPBELL.	H. BOWERS
FAIR VIEW VAL., Yolo.	A. H. NIXON.	T. A. GALLUP
WEST GRAFTON, Yolo.	A. W. MORRIS.	G. W. PARKS
YOLO, Woodland.	R. B. BLOWERS.	G. N. FREEMAN
YUBA COUNTY.		
KELLEY, Smartsville.	J. E. RICKEY.	WM. SCHMIDT
MARYSVILLE.	MORTON SEWELL.	
WHEATLAND.	J. H. KEEPS.	C. K. DAM

Nevada Subordinate Granges.

ALFALFA, Reno: A. J. HATCH, M.; E. C. MCKINNEY, S.
CARSON VAL'Y, Genoa: T. IRVIN, M.; R. J. LIVINGTON, S.
CLOVER VALLEY, Elko: F. THOMSON, M.; W. B. REYNOLDS, S.
DOUGLASS: A. B. BALES, M.; S. A. KINSEY, S
EAGLE VALLEY: G. W. CHEDIC, O.; A. F. GILBERT, S.
ELKO: J. A. PINKER, M.; J. L. KEYSER, S.
HALLECK: J. S. FENN, M.; M. GEARY, S.
MERITT, Mason Valley, Esmeralda Co.: KIMBEN CLEAVER, M.; CLARK CLEAVER, S.
PARADISE: J. BRADSHAW, M.; J. P. MULLINIX, S.
LAMOILLE: R. A. YOUNG, M.; H. M. TRUMAN, S.
STAR VALLEY: D. V. JOHNSTON, M.; C. J. WHITNEY, S.
WELLINGTON, No. 6, Esmeralda Co.: A. H. HAWLEY, M.; J. N. MANN, S.
WINNEMUCCA: W. B. HASKELL, M.; H. BARNES, S.

Loans, Not Losses.

When our article on the Graugers' Bank, in the last issne of the PRESS, said, "The amount of *losses* for the year was $1,100,474.40," the careful reader knew that we mesnt to ssy: "The amount of LOANS for the year was $1,100,474.40."

There has been a good deal of talk about bsnk losses, etc., of late; bnt the Grangers' Bank does not deserve to be placed in that category. It is the sure, strong tower of the Order in this State, and when we wished to give our readers an exact record of one branch of its business the types belied us. So long as the present vigilant and forceeing vice-president is at the helm of the institution there is no danger that the Grangers' Bank of California will make any such smount of losses; bnt on the other hand, its good work will go on prospering and to prosper.

PANAMA GRANGE, No. 138, of Kern county, had an interesting ceremony at their installation of officers, January 8th. The Secretary of this Grange has changed his residence to San Diego, which involves a new election, of the result of which due notice will be given.

Important to Patrons.

The Grangers' Business Association holds its aunusl meeting for the olection of officers, at headqnarters on Wednesday, the 16th day of Februsry, at 10 o'clock A. M. It is important that every share of stock be represented, snd rightly represented, too. Its vote should be cast for the best men. In all Grange elections let farmers enforce the fact that only those who can and will best serve their interests are entitled to their votes snd confidence. An officeholder's being clover and agreeable personally and fraternally, will not do the work that is set before the Patrons of Husbandry in these times. Sonnd yonr men thoroughly whom yon would promote. It is the duty of every stockholder to know positively how their association stands, snd demand a clesr exposition of its affairs, prospects snd bnsiness trsnssctions. We believe the Grangers' Bnsiness Associstion is ready to furnish this at *all* times.

This nssociation is of more importance to the farmers of California than most people are aware of, not 'altogether for the volume of business it transacts, bnt for reason of the competition it creates in the market, the reform it contemplates snd endeavors to bring sbout in the method of doing business for fsrmers in San Francisco. Its establishment and proper maintenance, as a relisble house, on which the producers throughout the State can concentrate a large amount of patronage at correspondingly low tariffs for exchange, is a matter of great moment. Let every shareholder and farmer bear this in mind and act accordingly.

Helping Other Granges.

MESSRS. EDITORS:—I notice a communication in your issue of Jsnuary 22d, from Walnut Creek Grange in regsrd to a Grange in San Diego county applying for sssistance to build a hall. The same reqnest was sent to Oristimbs Grange, but has not as yet been lsid before it for action. You do not know the nsme of the Grange. Enclosed find list of officers as published by you on Jannary 1st, from which you will see that the application was from Ballena Grange, No. 237, of Ballena, Ssn Diego county. In your comments on the request you think no Grange should take any notice of such appeals for sssistance until referred to headqnsrters. I think you are wrong in that. If we know there is snch a Grange, (and we must know it by yonr published list of officers), I think we have full authority for assisting at any and all times, all appeals so far as we are able without injnry to ourselves or those dependent on us. But so far as the benefit to be derived from assisting to build a hall for a Grange as weak as the one in question seems to be, it is doubtful. No company of men and women shonld attempt to organize and run a Grange if they are obliged to depend on the Order to furnish them a place to meet in. Owing to their weak condition as it exists would be better (in my opinion), for them to surrender their charter than ask assistance to build a hall. Fraternally yours,

E. H. ROBISON, Sec'y,
Oristimba Grange.

Our informant will please note the fsct that onr remarks mentioned *such* appesls.[EDS. PRESS.

Grange Directory.

We print this week our "Grange Directory." It has been compiled with great care and at the cost of much lsbor. We trnst our efforts to furnish such a condensed showing of the officers of the Subordinate Granges will be received with favor.

In making up this directory we have made use of all the election lists which we have received. The work is, however, not complete. A number of the Granges stand with lsst year's officers because the secretaries have neglected to send us the results of their elections. We trust lists will be furnished at once from all Granges not correctly represented in this month's directory.

We hsve in mind a number of interesting figures concerning the number of re-elections snd substitntions, bnt the crowd upon our spsce this week compels us to defer them until another time.

THOMPSON & SHANKLAND.—A. W. Thompson, Esq., recently of No. 6 Leidesdorff street, has formed a co-partnership in the legal profession with J. H. Shankland, Esq., formerly of Tennessee. They have established their new office in the Grangers' building, where Patrons and others will find them handy when they need able and diligent counselors.

POMONA GRANGE IN STANISLAUS COUNTY.—Bro. T. H. Merry, State Deputy, will organize the Stanislaus County Pomona Grange, at Modesto, on Monday, Febrnary 7th, at 10 A. M., when he hopes to meet all the Masters, Past Masters and their wives who are Matrons, and also the delegates from the several Granges of that county.

REPORTS.—The reports of the National Grange proceedings for this State are detained, (slightly we hope), by the snow blockade. The State Grange reports will probably be circulated by Secretary Adsms next week.

From the Granges.

Ben Lomond Grange.

We have just completed a new Grange hall for Ben Lomond Grange, sixteen by twenty-six feet in ares. Though small we find it quite roomy for onr membership. Onr Grange has hsd many difficulties to surmount since its organizstion, chiefly by reason of the mistake of admitting to membership a few who were not in full sympathy with ns; but we still continue to flourish and are expecting large reinforcements in the spring.

We had a very pleasant time last Christmas and sat down to an excellent harvest feast prepared by the ladies. The tables wero loaded with a choice vsriety of eatables, to which the most ample justice was done. After the physical man was satisfied there were some pleasant addresses by Mr. Wm. Roantree, Mr. John Burns, Sr., Mr. John Burns, Jr., and Mr. Thompson, late of San Francisco, who responded for the ladies in a very happy and eloquent manner. Songs and toasts were also in order. Eurly in the evening several musicians were introduced and the company and invited guests marched in procession to the new hall, where a lively and interesting dance closed the day's entertainment.

JAMES BURNS, Sec'y,

Antelope Grange.

MESSRS. EDITORS:—According to previous nnderstanding, we had, at the regular meeting of Antelope Grange, No. 100, on January 1st, a public installation of officers for the ensuing year. Our time for meeting is 10 A. M., but the roads were very bad and weather quite damp, so it was twelve o'clock ere the meeting was called to order; but notwithstanding the bad roads there was quite a number of visitors, perhaps more than members; among them were Brother Estell, Past Master of Colusa Grange, and Sisters Mrs. and Miss Estell. Brother Estell was invited by Worthy Master Sites to preside; by the way, he is a good presiding officer. After a few appropriate remarks, he proceeded with the ceremonies of installation. The officers were all installed except Mrs. Peterson, Worthy Treasurer elect. She is one of the Committee of Relief, and considered it her duty to be at home and see to the cares of a very young Granger. And as I have not heard of any member thinking her out of order, I do not think Brother Webster, Worthy Master of the State Grange, will be called on to decide as to the first duty of a lady member of the Relief Committee, either to attend and be installed or attend to the care of little Grangers. After the installation was over, Shepherds' gobblers made their appearance; they did indeed give credit to the thrifty sisters of our little Grange. Every one present seemed happy in thus beginning the new year. The inclosed list of a small club of subscribers to the RURAL PRESS speaks for itself, and I hope is correct. I hope by the time we have another installation our Grange will number more members, and that we will be able to add several names to the subscribers of the RURAL.

P. PETERSON, Sec'y.

Colusa, Jan. 23d, 1876.

P. S.—On account of very bad roads, as usual this season, we have just, since writing the above, received all the numbers of the RURAL issued since New Year's. The improvement in stitching and cutting is a very agreeable surprise, and I expect will be generally appreciated. P. P.

Yountville Grange.

MESSRS. EDITORS:—Yountville Grange is still alive and prospering. It is true there is not the same amount of zeal exhibited among its members that there was in the early days of its existence, but nevertheless there are a goodly number of its members who I think thoroughly understand the objects for which they organized and the inestimable blessings that must follow as a consequence of their accomplishment. We install our officers the first Saturday in Februsry. A general invitation is extended to the PRESS and the members of the Order.

We have been having quite a succession of rain and snow storms for the last few days, and, as a consequence, the earth is completely satnrated with water, the streams are full to overflowing, and all farm work is suspended for the present. The summer fallowed grain, together with the early winter sown, looks very promising, indeed, but the seeding of the low lands will necessarily have to be deferred until some time in February.

Yours, Fraternally, J. M. MAYFIELD.

[We acknowledge a special invitation to be present at the instsllation of the officers of this Grange, and regret that pressing duties here prevent our acceptance of the same. The occasion will no doubt be one of much interest, and we trust many neighboring members of the Order willbe there.

Idaho Granges.

MESSRS. EDITORS:—Winter is at last upon us; plowing has stopped; the thermometer is down to 3° above zero and snow half an inch deep; stock is doing well on the range.

I herewith send you a list of the Granges of this Territory, kindly furnished by Gen. L. F. Carter, from which you will see that the Grange movement is progressing in this Territory.

A. B. R.

Yolo Grange.

MESSRS. EDITORS:—On Saturday, January 8th, 1876, the Yolo Grange (No. 13,) met to install the officers elect for the ensuing year. The Grange hall was well filled by 10 o'clock by members of this and neighboring Granges. Brother S. A. Howard, of Cottonwood Grange, was invited and assisted Brother Wyckoff in installing the officers, as follows: [The officer list appears in proper column.—EDS.] As we had agreed to have a harvest feast at this time, when the exercises of the installment were concluded, the tables were spread and richly laden with the good things of this life.

Although the attendance was large we had enough and to spare. Many of our friends outside the Grange partook with us of the nice delicacies prepared by Matrons of our Order. The exercises were enlivened with good vocal and instrumental music. At a late hour in the afternoon we retired from the hall, feeling that it is a good thing to be a Granger, physically, socially, intellectually and morally.

G. N. FREMAN, Sec'y.

Change of Name.

MESSRS. EDITORS:—The name of our Grange is changed from Hungry Hollow to Fairview Valley Grange. Oat Valley P. O. is discontinued; send all commnnications to Yolo, Yolo county, Cal. T. A. GALLUP, Sec'y.

Yolo, Cal., Jan. 28th.

The Granges of El Dorado County.

MESSRS. EDITORS:—The Granges in this county are in a prosperous condition, increasing in membership and general usefulness. A determination apparently prevails among Patrons here to avail themselves of the many opportunities offered by the organization of P. of H. to better their financial condition, and to make themselves more useful generally.

Sutter Mill Grange, on Saturday, January 15th, with the assistance of our Worthy District Deputy, A. J. Christie, as installing officer, and Bro. W. Wiltse, Master of Placerville Grange, as assistant installing officer, proceeded to the installation of officers elect for the year 1876. The installation ceremonies were properly and effectively conducted. A large number were present and much good feeling prevailed. After the regular bnsiness of the day was completed, all were invited to partake of a harvest feast which had been prepared by the good sisters, and which was only waiting to be tasted, (I mean the lunch, not the sisters,) to be enjoyed. During the feast wit and humor were prevalent. Such feasts, Messrs. Editors, are only met with in the Grange, and none but sister Grangers know how to get them up. Many good tbings are said by the brotherhood here of the RURAL PRESS. We most certainly appreciate your efforts in behalf of the interests of the farmers of this coast, and wish you many long years of usefulness and prosperity.

J. G. O.

[Some general remarks by our correspon dent in reference to the agricultural resources of his section of the State will be given in the nex$_t$ issue of the PRESS.—EDS. PRESS.]

WORTHY MASTER'S DECISIONS—COMMUNICATING THE WORD.—Whenever a member has obtained a dimit from his or her Grange, he or she, (as the case may be), is no longer a member of that Grange, consequently is not entitled to receive the "annual word" from the Master of the Grange from which he or she dimited, for the Master of a Grange has no right or authority to give the "annual word" to any one who is not a member of his Grange in good standing. Neither has a Deputy any right or authority to give the "annual word" to any one but the Masters of Granges in his district, in good standing on the books of the Secretary of the State Grange.

J. V. WEBSTER, W. M., S. G. C.

Election of Officers.

ANTELOPE GRANGE, No. 98, ANTELOPE, YOLO CO.—W. J. Clarke, M.; James Rollins, O.; Mrs. R. P. Glass, L.; H. C. Hoffman, S.; D. W. Kanode, A. S.; J. W. Anderson, C.; Mrs. T. F. Hughes, T.; T. F. Hnghes, Sec'y; H. Yarrick, G. K.; Mrs. A. W. Dunnigan, Ceres; Miss S. F. Glass, Pomona; Mrs. J. W. Anderson, Flora; Miss Lizzie Rice, L. A. S.

ATLANTA GRANGE, No. 111, RIPON, SAN JOAQUIN CO., CAL.—Putnam Visher, M.; J. W. Maxwell, O.; Samuel Meyers, L.; U. J. Munson, S.; John Liesy, Jr., A. S.; W. J. Miller, C.; W. J. Campbell, Sec'y; B. L. Ellsmore, G. K.; Mrs. Jennie M. Lombard, Ceres; Zorado Hunsucker, Pomona; Marian Miller, Flora; Louise Liesy, L. A. S.

BEN LOMOND GRANGE, No. 170, SANTA CRUZ, CAL.—Election, Dec., 27th: John Burns, Jr., M,; Fritz Quistorff, O.; John Burns, Sr., L.; Thomas Burns, S.; Robert Reed. A. S.; D. D. Thompkins, C.; Charles Craghill, T.; James Burns, Sec'y.; William Barnett, G. K.; Mrs. Robert Reed, Ceres; Mrs. Charles Craghill, Pomona; Mrs. D. D. Thompkins, Flora; Miss Maggie Burns, L. A. S.

BINGHAMPTON GRANGE, SOLANO CO., CAL.—Albert Bennett, M.; Chas. E. Plummer, O.; Mrs. B. V. L. Bennett, L.; S. M. Carlton, S.; J. B. Jameson, A. S.; J. F. Brown, T.; G. A. Brown, Sec'y; J. M. Bell, G. K.; J. Tuck, C.; Mrs. E. Brown, Cercs; Mrs. Lucy Plummer, Pomona; Mrs. M. E. Gay, Flora; Mrs. Helen Bell, L. A. S.; H. H. McKinstry, Trustee.

CAHTO GRANGE, No. 202, LONG VALLEY, MENDOCINO CO.—Election, December 18th, 1875: James J. Thomas, M.; O. R. Bennott, O.; J. H. Braden, L.: G. N. Grubbs, S.; W. B. Burns, A. S.; J. G. Burns, C.; J. G. Wilson, T.; J. H. Clarke, Sec'y; J. D. Wayman, G. K.; Mrs. Paulina Wilson, Ceres; Mrs. Martha Burns, Pomona; Mrs. Mary E. Burns, Flora; Miss A. Wilson, L. A. S.

DENVERTON GRANGE, No. 123, DENVERTON, SOLANO CO.—Election, December 31st, 1875: R. H. Barkway, M.; O. D. Arnold, O.; Wm. Spencer, S.; J. B. Carrington, L.; G. H. Bullard, A. S.; Carlos Tonnisen, T.; G. C. Arnold, Sec'y; G. Y. Stewart, C.; Christian Nelson, G. K.; Mrs. O. D. Arnold, Ceres; Mrs. Wm. Spencer, Pomona; Mrs. Samnel Stewart, Flora; Miss H. Nelson, L. A. S.

ENTERPRISE GRANGE, No. 38, LA DOW DISTRICT, LOS ANGELES CO.—B. F. Clark, M.; S. W. La Dow, O.; Z. Eldredge, S.; J. B. Middleton, A. S.; F. R. Slaughter, L.; J. H. Snyder, C.; H. Vogt, T.; E. S. Butterworth, Sec'y; R. K. MoGue, G. K; Mrs. H. La Dow, Ceres; Mrs. M. M. Grun, Pomona; Mrs. M. A. Alexander, Flora; Mrs. E. Eldredge, L. A. S.

FAIRVIEW GRANGE, No. 39, ANAHEIM. LOS ANGELES CO., CAL.—Election, Dec. 4th: David Evey, M.; D. W. C. Cowan, O.; Edward Evey, L.; Byron Clark, S.; Lewis N. Evans, A. S.; Amos Wright, C.; J. W. Clark, T.; J. M. Guinn, S.; Wm. J. Hill, G. K.; Miss M. E. Anstin, Ceres; Miss Frances Evey, Pomona; Miss M. E. Kellogg, Flora; Miss Laura Evey, L. A. S.

FAIRVIEW VALLEY GRANGE. No. 97, YOLO COUNTY.—Election, December 11: A. H. NIXON, M., Post office, Yolo; N. E. Speight, O.; T. J. Parker, L.; Y. A. Gallup, S.; R. J. Pierce, A.; T. A. Gallup, Sec'y; B. Csmpbell, T.; Jos. Robinson, G. K.; Mrs. L. J. Gallup, Ceres; Mrs. C. Parker, Pomona; Mrs. C. M. Pierce, Flora; Mrs. Mina Gordon, L. A. S.; B. Campbell, Trustee.

FERNDALE GRANGE, No. 102, FERNDALE, CAL.—Election, Dec. 25th: J. C. Dungan, M.; James Smith, O.; Sister J. C. Dungan, L.; James Dawson, S.; Charles Gibbs, A. S.; Uri Williams, C.; I. Baldwin, T.; Eli Damor, Sec'y; K. Geer, G. K.; Mattie Vervalin, Ceres; Mrs. O. Mills, Pomona; Ethe Minar, Flora; Belle Criss, L. A. S.; F. Z. Boynton, Trustee.

GUENOC GRANGE, No. 20, GUENOC, LAKE CO., CAL.—Election, Dec. 23d, 1875: J. M. Hamilton, M.; J. W. Connelly, O.; J. H. Loper, L.; A. H. Cheeney, S.; J. C. Murphy, A. S.; J. Muir, C.; J. S. Capps, T.; W. Whittington, Sec'y; M. S. Rockwell, G. K.; Mrs. A. H. Cheeney, Ceres; Mrs. Whittington, Pomona; Mrs. Wood, Flora; Miss Hamilton, L. A. S. Trustees: J. M. Hamilton, J. H. Loper, J. M. Connelly.

KINGSBURG GRANGE, No. 250, KINGSBURG, FRESNO CO., CAL.—Election, Dec. 18th: J. W. Traber, M.; J. A. Say, O.; W. J. Berry, L.; S. H. Loomis, S.; Mrs. J. H. Say, C.; Mrs. W. Livermore, P.; Mrs. J. W. Traber, F.; Miss Retta Traber, L. A. S.; J. Gilbert, A. S.; W. Livermore, Sec'y; H. Potter, T.; L. D. Fowler, G. K.; W. A. Sanders, C.

LOS ANGELES GRANGE, No. 36, LOS ANGELES, CAL.—S. A. Waldron, M.; N. S. Montague, O.; H. C. Graham, L.; Chauncey Lewis, S.; Willey Garey, A. S.; J. T. Gower, C.; N. N. Williams, T.; J. Q. A. Stanley, Sec'y; T. A. Garey, G. K.; Emma Montague, Ceres; S. G. Smith, Pomona; Laura Hancock, Flora; Belle Lewis, L. A. S.

OCEAN VIEW GRANGE, No. 157, SCHOOL HOUSE STATION, SAN MATEO CO., CAL.—Election, Dec. 30th: I. G. Knowles, M.; Ai Willard, O.; J. Smith, L.; E. Charleton. S.; J. Charleton, A. S.; F. E. Pierce, T.; H. E. Graves, Sec'y; Mrs. I. G. Knowles, C.; Wm. White, G. K.; Mrs. Fanny Pierce, L. A. S.; Mrs. J. Smith, Ceres; Mrs. M. J. Charleton, Pomona; Mrs. W. H. Kinne, Flora.

ORISTIMBA GRANGE, No. 110, HILL'S FERRY, STANISLAUS COUNTY, CAL.—E. H. Robison, M.; E. P. Bennett, O.; J. H. Parker, L.; Joseph Barnes, S.; John Yates, A. S.; James Eachus, C.; Guy Kilburn, T.; B. D. Noxon, Sec'y; John Bennett, G. K.; Elizabeth Eachus, Ceres; Alice Reeves, Pomona; Emma Eachus, Flora; Sister Newell, L. A. S.; Trustees, C. C. Eastin, Guy Kilburn, Samuel Bennett.

POPE VALLEY GRANGE, No. 197, POPE VALLEY, CAL.—Election, Dec. 25th: C. A. Booth, M.; P. H. Wallace, O.; R. S. Hardin, L.; J. A. Honell, S.; T. S. Hardin, A. S.; R. J. Davenport, C.; Jesse Barnett, T.; Miss Sallie Bayne, Sec'y; G. W. Cole, G. K.; Mrs. S. E. Howe, Ceres; Miss M. Vann, Pomona; Miss E. Wallace, Flora; Miss F. Walters, L. A. S; G. P. Wallace, Trustee.

SNELLING GRANGE, No. 105, SNELLING, MERCED CO., CAL.—Election, Dec. 18th, 1875: G. C. Baker, M.; L. G. Burns, O.; D Yeiser, L.; P. Fee, S.; J. P. Trusdell, A. S.; S. E. Smyer, C.; A. D. Baker, T.; E. Kelsey, Sec'y; C. Kelsey, G. K; Mrs. M. E. Yeiser, Ceres; Mrs. L. E. Fuller, Pomona; Miss M. E. Pratt, Flora; Mrs. M. Kelsey, L. A. S.

STAR GRANGE, No. 188, CASTROVILLE, MONTEREY CO.—J. McDonald, M.; H. B. Scott, O.; J. Northop, L.; Chas. McIntire, S.; J. B. Kirtly, A. S.; J. B. Castro, C.; F. Brown, Sec'y; J. C. Wilhoit, S; M. Manning, G. K.; Miss Patton, Ceres; Mrs. H. B. Scott, Pomona; Miss Tilly Brown, L. A. S.; Mrs. M. Manning, Flora.

YOLO GRANGE, No. 13, YOLO, CAL.—R. B. Blowers, M.; E. J. Clanton. O.; D. A. Jackson, L.; J. J. Bowman, S.; Jas. Wyckoff, A. S.; S. P. Pond, C.; D. P. Diggs, T.; G. N. Freeman, Sec'y; F. Stewart, G. K.; Ella Jackson, L. A. S.; Hattie Wyckoff, Ceres; Vic. Harlan, Pomona; Josephine Diggs, Flora.

AGRICULTURAL NOTES.

California.

ALAMEDA.

DECIDED FUTURE.—*Enterprise*, Jan. 29: During the past few days we have advised with many of our leading farmers, and from the general conclusions we are of the opinion that the present or late rains will not be a detriment to our grain interests. Those who have not already got their grain in will not be a loser, as a late crop is better than none at all. If the ground does not dry ont enough to allow plowing and sowing until the middle of next month, no harm will be done.

BUTTE.

THE CROPS.—*Mercury*, Jan. 28: Day after day farmers are in town speaking in the highest terms of the prospects for an excellent crop. We have inquired of a number as to the result of the late cold spell of weather, and find in no instance that it has injured the crop in the least. In fact, many think it is of considerable benefit. The grain during the cloudy weather was growing very rapidly and not getting much root, but the cold weathor will stop its rapid growth and cause it to take root. Those living on the red hills claim that their fields present as favorable an appearance as their neighbors on the black land. Last year Butte was the banner wheat conuty in the State by 20,000 bushels, and we have every prospect now of increasing those figures. The grass grows very fast, and furnishes a good bite of feed for the cattle and sheep.

CONTRA COSTA.

WEATHER.—*Gazette*, Jan. 29: The sky cleared off with a brisk northwesterly wind on Thursday, and we seem to have entered upon a period of settled pleasant weather, though the snow still whitens the north face of Diablo, and tradition teaches that it will remain until washed off by rain. However, we may indulge a hope that the rain will he withheld until the farmers can have an opportunity to finish their planting and grain seeding. Our rain measure for the season is 11 92, or within 1.46 of last season's total measure, including the June rains, and nearly 5½ inches more than we had up to the first of Febuary last year.

EL DORADO.

RAIN.—*Republican*, Jan. 27: Since the first rain in September, up to yesterday morning, 31.02 inches of rain has fallen here. We have had but little heavy rain, an nnusual number of rainy days, and the roads throughout the country were never in a worse condition.

KERN.

A RABBIT TRAP.—*Courier*, Jan. 29: A novel and interesting method of extirpating rabbits has been suggested and employed by some of the citizens living in the Panama precinct, a few miles south of Bakersfield. It is simply to drive them just as fish are driven in some places. A brush corral or inclosure, tight enongh to prevent him from jumping over it, is constructed. At a given point a small aperture is left for the rabbits, ingress; and from this point, diverging in triangular form, two wings of brush are built, each a half a mile or a mile long. Mounted men then scatter over the surrounding country for miles and "beat" up toward the inclosure. The startled rabbit, driven from his cover, scurries on before, while the beater steadily closes up behind, and with the lines of brush fence on either side and his pursuers in the rear, dashes through the only opening that he can find at the convergence of the wings and finds himself snugly entrapped. The experiment has already been tried to an extent to warrant its success. Csptain Noble, Mr. Hnbbard, Mr. Herrold, and a number of others, constructed a drive after the manner described, and the other day they made their first trial. There were but few drivers, and the circuit made was small, but we are informed that they corralled more than five hundred rabbits. The mistake, however, had been made of building the corral too low—supposing that the rabbits finding themselves inclosed would naturally seek to secrete themselves in the brush of the corral. But the rabbits demonstrated the fact to those who had any doubt on the subject that they can jump as well as rnn, and when they took in the situation they went over the brush barrier as if it were not there. Those who witnessed the scene, however, are confident that all that is necessary is to build the corral eight or ten feet high.

LOS ANGELES.

ASSURANCE.—*Express*, Jan. 29: If the crops fail this year, it will not be from drouth, that is certain. We have had a great abundance of rain this winter, and it has come at the most opportune times. The present dispensation will carry us over into the usual early spring rains, and secure our crops against all casnalty from drouth. Every acre of land in this county, from the foothills to the ocean, could this year have been made to yield a good orop. Indeed onr harvest will only be limited in extent by the amount of farm labor in the country. As the good winter weather we have had in Los Angeles has been common to the whole State, California ought to come ont agriculturally strong this year.

MONTEREY.

GOPHERS.—*Democrat*, Jan. 29: Future generations of gophers in the county will probably refer to the present winter as the season of a deluge which overwbelmed numberless of their tribes. In fact, their two-legged persecutors are now rejoicing that such a calamity has over-

(Continued on Page 92.)

My Neighbor's Baby.

Across in my neighbor's window,
With its drapings of satin and lace,
I see 'neath the flowing ringlets,
A baby's innocent face.
His feet in crimson slippers,
Are tapping the polished glass,
And the crowd in the streets look upward,
And nod and smile as they pass.

Just here in my cottage window,
Catching the flies in the sun,
With a patched and faded apron,
Stands my own little one.
His face is as pure and handsome
As the baby's over the way,
And he keeps my heart from breaking
At my toiling, every day.

Sometimes when the day is ended,
And I sit in the dusk to rest,
With the face of my sleeping darling
Hugged close to my lonely breast,
I pray that my neighbor's baby
May not catch heaven's roses all,
But that some may crown the forehead
Of my loved one, as they fall.

And when I draw the stockings
From his little weary feet,
And kiss the rosy dimples
In his limbs, so round and sweet,
I think of the dainty garments
Some little children wear,
And that my God withholds them
From mine so pure and fair.

* * * * * *

May God forgive my envy,—
I knew not what I said:
My heart is crushed and trembled,
My neighbor's boy is dead!
I saw the little coffin
As they carried it out to-day;—
A mother's heart is breaking
In the mansion over the way.

The light is fair in my window;
The flowers bloom at my door;
My boy is chasing the sunbeams
That dance on the cottage floor.
The roses of health are blooming
On my darling's cheek to-day,
But the baby is gone from the window
Of the mansion over the way.

Concerning Hogs.

[Written for the PRESS.]

"Are you interested in hogs, ma'am?" said an old farmer to me one day, "because if you are I have some fine ones in the pen youder you may like to look at."

No, I am not interested in hogs, but have something to say about them, and not being much of a talker will put it on paper, so people can read it if they wish, and if they do not care to read it they can let it alone.

Zoology teaches us that certain vegetable eating animals were intended as food for man, and some other animals were designed as scavengers, to dispose of that which would poison the air and render it unfit for human life. The hog evidently belongs to this latter class, for his natural propensities lead him to devour whatever falls in his way, whether it be dead or alive, reptiles, grubs and decayed animal and vegetable matter. In certain places hogs have been fattened on the refuse of slaughter houses. The farmer himself uses his swine as scavengers, for in his back yard may be found a receptacle called the swill barrel, containing their food, which consists usually of a most extraordinary mixture. Besides the sour milk, which is good, there may be found rotten apples, rotten potatoes, moldy bread, spoiled meat, cooked vegetables which have soured, the cleanings and scrapings of all sorts of game and fowls, dirty dishwater, drowned flies, bugs and even dead rats and mice.

It is dreadful to mention such things, I feel quite horrified myself at the idea; but that is not one-tenth or one-hundredth part as bad as it is to eat them after they are turned into *pig meat*, and that is just what people do whenever they eat pork or lard or bacon.

The hog is in every respect a filthy animal, and it is high time his flesh was banished from the tables of civilized people. Science has revealed the fact that pork is liable to be infected with a certain animalculae destructive to human life, and that it always has a tendency to produce scrofula and other impure conditions of the blood.

These statements may astonish some steady-going farmer who has always had hog meat in his house, and always expects to, simply because his father and grandfather did before him; and we cannot blame the farmer so much, because possibly he is a man who reads little and thinks less; there are a few such farmers everywhere, and neither he nor his wife have ever considered what they should do without pork. If there was no pork to be had they could fill its place very well with salt beef and dried beef, salt and smoked fish and eggs. Several other articles could also take the place of lard, and the family be ten times better off with regard to health.

The principal argument used by lovers of pork in its defense is that it usually commands a high price, showing that a great many people buy it.

A parallel case is that of the lowest class of newspapers, whose columns are filled with police reports, and the scum gathered from drinking and gambling saloons. These papers also command a high price, because there is unfortunately a large class of people whose taste calls for that sort of stimulus; but it does not therefore follow that this is good and desirable literature.

And it can be only a depraved appetite which leads people to persist in the use of pork after being enlightened as to its nature and effects.

L.

Pests.

[Written for the RURAL PRESS by ELISA E. ANTHONY.]

Not flies nor mosquitoes, although they cause one to feel rather uncomfortable at times—but men and women pests are referred to. The inquisitive woman is one specimen. The first time she enters your house she asks you where you were born, how old you are, how many lovers you have had, what business your husband is in, what his income is a year, how much you paid a yard for your carpet, and caps the climax by asking in a patronizing tone if you compose your articles yourself or copy them out of some book (fact).

Pest number two is the growler. The writer has one in her mind'e eye, and, if she were not afraid that you would imagine it was her husband, would describe him (the pest, not the husband). If it is a cold night he growls until she brings him a bottle of hot water and places it at his feet, and soon he is snoring, while she gets warm the best way she can. If the baby cries during the night, instead of soothing it and letting his tired wife sleep, he nudges her until she awakes and tells her to tend to the baby so he can sleep, and she meekly obeys, soothes the crying babe and then creeps softly into bed for fear of disturbing him. If she wants a new dress he growls that he isn't made of money, can't spare more than a dollar or two, and so on, until she feels as if she had committed a dreadful sin in asking for what was only her due.

When there is company to dinner, he growls that the bread is heavy, the meat half done, the potatoes watery, the coffee muddy, and wishes she could cook like his mother used to, and winds up by telling the visitors never to get married; while his wife tries to turn it all off as a joke, but her tearful eyes and quivering lips belie her words.

When, on rare occasions, she accompanies him to town, he will tell her to hurry; tell her she don't need any ribbons or laces, and so on, until she is so flurried, that she doesn't know whether she is purchasing ten yards of muslin or one, and on reaching home discovers that she has forgotten half that she intended to get. If a chair is out of its place, or a speck of dust is on the table, he growls that he never saw such an untidy house; 'everything is going to rack and ruin; no wonder he is poor, with such a slack, careless wife; and after relieving his mind, he composedly leans back in his comfortable easy chair, throws a handkerchief over his face, and in less than five minutes is fast asleep, while his harsh words rankle in the heart of his wife for many days.

Santa Cruz, Dec., 1875.

MEN AS LOVERS.—In the first place, it is an imposition on any well bred girl to keep her up later than half-past ten o'clock, when you have the opportunity of seeing her often. If you always leave her with the wish in her heart that you had stayed longer, you gain so much. Never run the risk of wearying her with your presence. Be just as earnest and straightforward as in your honorable dealing with men. Impress your friends with the worthiness and seriousness of your love, so that vulgar and senseless bantering will appear to them as such. Love is religion—the supremest happiness, wear it manfully and proudly, but holily. Woo a woman bravely. If there is anything humiliating to a woman, it is to have a lover, whom she wishes to honor, weak and vapid, ever yielding and half afraid of her. She longs to tell him to "act like a man." The man who conceals or denies his love for fear of being laughed at, is a coward. A love that has no element of divinity in it is not love, but passion, which, of itself, has nothing ennobling. That was a beautiful inscription on an engagement, ring "Each for the other, and both for God."—*Scroll Work.*

STREET DRESSES are growing longer, and our side-walks will be cleaner. Pull-backs are not so taut, and our maidens don't look so distressed. Bonnets flare more than they used to, and there is room for a center-table over the forehead. French heels are revived, and our doctors are studying up treatment of spinal diseases.

THE DUCKS.—Samuel G. Park, of Mark West valley, near Santa Rosa, wonders what ails his ducks, as they are all building their nests in trees this season, instead of on the ground, as they ought by all precedent to do.

A NEW PEACH.—A new variety of peach, called the Chinese cling, has been introduced in Napa from Tennessee, and several small lots of cranberry plants have been set out in reclaimed swamp lands.

More Moral Courage Wanted.

"I cannot help thinking that if there was a little more individual work, a little more moral courage in the world to save men, the world would not be so much of a wreck as it is today. If you saw that a friend, a brother, was taking the wrong course, what would you do? Would you merely say: 'Dear, dear, dear! how painful it is that so many men are going wrong. Just as sure as he continues that course, he is a lost man; but he will go; dear, dear, dear!" And when you hear the despairing cry coming up from the depths, add, 'I told you so!' Now what should you do? Should you not lay your hand on him and say: 'My friend, you are going wrong!' What if he swears at you? Never mind, save him if you can. Many a man has not got so far, gone from your sympathy but that one word kindly said in his ear, 'My friend, you are going wrong,' will check him. The difficulty is that we let men go so far from our sympathy that we cannot reach them. Now it is this individual work that I believe is to reform the world and bring it back to God."—*Gough.*

HOW TO TREAT UNEXPECTED GUESTS.—When one of "father's" business friends drives into the yard at about half past eleven, the good wife knows that he will surely stay to dinner. Father is a great story-teller, and he likes to get hold of a new auditor. How aptly comes a frown of dismay and displeasure on the smooth, fair face of his helpmeet. What can be done? Work is going on according to the day's plan in the kitchen; the dinner was arranged for none but the family; the children are coming home from school and making a clatter;—all is bustle and confusion. She feels that the best dishes must be used, and something extra cooked for the inopportune guest. Now, good woman, don't do it! Your fine dinner, with its attendant irritation and "upsetting," will taste no better than what you had prepared. Make no difference in your plans, but seat your visitor with a smile and easy greeting at your hospitable board; and he will feel more comfortable and happy than though you gave him a banquet. You save temper and trouble, and gain the enjoyment of giving your friend a real cosy time. A sensible person knows that farmers do not have six courses upon their table daily, and the wholesome, hearty fare, with good nature and hospitable cordiality, will be tinctured with a sweet, domestic sense that is inevitably lost in grand dinners. Smiles and neatness are sauce for homely meals.—*Golden Rule.*

"HOME, SWEET HOME."—A gentleman named Wall, residing at Phœnixville, Pa., has several very fine canary birds, which he has given much attention. One of the birds he has taught to sing "Home, Sweet Home," clearly and distinctly. His mode of instruction is as follows: He placed the canary in the room where it could not hear the singing of the other birds, suspended its cage from the ceiling, so that the bird would see its reflection in a mirror. Beneath the glass he placed a musical box that was regulated to play no other tune but "Home, Sweet Home." Hearing no other sound but this, and believing the music proceeded from the bird it saw in the mirror, the young canary soon began to catch the notes and finally accomplished what its owner had been laboring to attain, that of singing the song perfectly. Mr. Wall has been offered and refused $20 for his yellow throated soprano.

ARE WE DEGENERATING.—Bayard Taylor says that the assertion that woman always held an inferior position to man, is glaringly false, for in ancient Egypt it is well known that women were honored and respected equally with men. Women often sat upon the throne and administered the affairs of government. There was also in Egypt a lofty appreciation of the marriage tie, and the wife's name was often placed before that of her husband, and the sons frequently bore the names of the mothers instead of those of the fathers. It is impossible, he says, to look upon the statutes of this period, and not feel what a high degree of culture was fairly claimed by the race. The surgical instruments are identical with those of the present day, and various household utensils the same. So it follows that the more woman is equalized with man in the affairs of life, the greater the degree of civilization.

CHILDREN STUDYING AT HOME.—The Philadelphia *Press* complains that children are sent to school when too young, and deprecates the blunder of allowing them to bring the school home with them. It says: "When the doors of the schoolhouse close in the afternoon upon the children they should literally close out from them all that pertains to school until the opening next morning. A teacher should be a teacher, not simply a mere hearer of recitations. Lessons should be learned and taught at school—never at home. The teacher has no right to impose upon parents the most annoying part of the work. She has no right to take from the child a single moment of the few hours it has out of school."

FADING AWAY.—An exchange says that, what with stocking darners, knitting and sewing machines, apple-parers, washers and wringers, woman as a necessity seems to be fading from the earth.

WHEN will there be only twenty-five letters in the alphabet? When you and I are made one.

Early Rising a Delusion.

For farmers and those living in localities where people can retire at eight or nine o'clock in the evening, the old notion about early rising is still appropriate. But he who is kept up till ten or eleven or twelve o'clock, and then rises at five or six, because of the teachings of some old ditty about "early to rise," is committing a sin against God and his own soul. There is not one man in ten thousand who can do without seven or eight hours' sleep. All the stuff written about great men who sleep only three or four hours a night is apocryphal and a lie. They have been put on such small allowance occasionally and prospered; but no man ever yet kept healthy in body and mind for a number of years, with less than seven hours' sleep. Americans need more sleep than they are getting. This lack makes them so nervous and the insane asylums so populous. If you can get to bed early, then rise early. If you cannot get to bed till late, then rise late. It may be as christian for one man to rise at eight as it is for another to rise at five. We council our readers to get up when they are rested. But let the rousing bell be rung at least thirty minutes before your public appearance. Physicians say that a sudden jump out of bed gives irregular motion to the pulses. It is barbarous to expect children instantly to land on the center of the floor at the call of the nurse, the thermometer below zero. Give us time after you call us to roll over, gaze at the world full in the face, and look before we leap. —*Exchange.*

A Cargo of Music.

The *Tintern Abbey*, the other day, left England for New Zealand with one hundred starlings, goldfinches and thrushes; one hundred hedge-sparrows, one hundred and seventy yellow-hammers, and a great multitude of bright plumes and sweet voices. The farmers of New Zealand propose to let them loose, and thus clear the ground of noxious insects. Heavy penalties have been enacted for the protection of these foreign birds. What a grand thing it would be if we could all have an importation of birds, not only in our land but also in our dispositions. We want more music and plumes. We have too large an importation of crows and owls. Give us a tonch of goldfinches. We have enough who know how to croak; let us have more of those who know to sing. Let it be against the law for any one to hunt down the innocent merriments of life. Let the song birds loose in our homes and schools and churches. Be not frightened if some great eagle of a hallelujah flies through the religious assemblies. If the earth is ever to be a type of heaven, it must be a cheerful place. Blessed the man or woman or child who kindles a smile or plants a flower or lets loose a robin. The winged joys of life will eat up the cold creeping sorrows, as partridges devour grasshoppers and linnets kill caterpillars. From the four winds of heaven let there be brigantines of good cheer, bearing down upon us with a rich cargo of starlings and sparrows.—*Evangel.*

LOOK OUT FOR MOTHER EARTH.—And now there is more trouble ahead for our planet. Mr. Andrew Wilson, who has been writing pleasantly about the "Abode of the Snow" in Asia, revives an old theory of some ancient savant that the earth will topple over one of these days and send the oceans sweeping over the continents. It seems that the earth, that is, the portion of it which is not water, somewhat resembles a huge iceberg which, becoming topheavy by the destruction of its submerged parts, thereupon indulges in a summersault. So, Mr. Wilson thinks, that owing to the greater preponderance of water in the southern hemisphere, the greatest accumulation of water is around the South Pole; that when the accumulation has reached a certain point, the balance of the earth must be suddenly destroyed—the center of sphericity abruptly changed from the center of gravity, and the whole earth, almost instantaneously, will turn transversely on its axis, move the great oceans, and so produce one of those grand cataclysms which have before now altered the whole face of the globe.—*Ex.*

PRAISING THE WORK OF FRIENDS.—There is another matter about which we are apt to be unjust in our friendships. We are so sensitive to the charge of over-estimating the value of a friend's work through prejudice, that sometimes we let a stranger get the better of us in the expression of appreciation and praise. This is a small and damnable selfishness. Why should we not praise the sermon, the picture, the story, the poem of our friend? How did he get to be our friend in the first place? Did we not choose him from among ten thousand, because of those very qualities which attract us anew in his art?—*Scribner.*

DIDN'T WANT THAT KIND OF SIGN.—When the new church at Vestal Center, N. Y., was finished on the outside recently, the contractor, to fill the stipulation to put a gilded ball on the steeple, gilded a nearly round gallon jug, and turning it with the bottom up, placed it upon the spire. The jug, thus placed, did not impress the Vestal Center people as a proper symbol to worship under, so some of them rebelled. A William Tell stepped to the front, and from the first crack of his rifle the jug split into fragments and fell off.

Embroidery that is Worth While.

There is no such waste of time, money and patience as the worsted work and embroidery to which our ladies give up so much of their leisure. It isn't beautiful, it isn't useful and it stands much in the way of educating the eye and the general taste. Of conrse girls will always make slippers and smoking-caps for young men—at least I hope so; they enjoy making them, and the young men are not what I take 'em for if they don't enjoy getting them. There is no reason whatever why these things should not be well designed; but they never will be so long as the girls are so wanting in taste as to put up with the patterns they find in the shops. I suppose, however, if the young men and maidens were not so easily pleased, or had a taste of their own, there would be a supply of patterns to meet a more exacting demand. So long as people are in the infantile state of mind that is pleased with little imps and devils careering over slipper toes, or chasing one another along a lambrequin, or with foxes' heads and tails, hunting-caps and whips, or with any out of the whole catalogue we all know so well, not much can be hoped for. But the advice to take up embroidery did not have reference to little love and friendship tokens of the cap and slipper tribe. It was intended to apply to more serious works, such as coverings for furniture, hangings for doors or walls, and the like. Since things took a turn in England, and the arts of furniture and house decoration began to interest artists and arcbitects, and the new doctrine fonnd a sacred poet to father it and save it from sinking into trade and common-place, the arts of embroidery have been inspired with new life, and have enlisted in their service a number of good talents, who have not only given pleasure to the public but have found pleasure and profit in it for themselves. Some of the ladies belonging to the families of the house of Morris, Marshall & Co., have distinguished themselves by the beauty and originality of their designs, and no less for the excellence of their workmanship; and they have become important members of the business, their work and their tastes having not a little to do with the success of the enterprise.—*Scribner.*

A Wife's Love.—About ten o'clock last evening an officer of the first police found, crouching in an alley-way off Endicott street, a woman and three small children, two boys and a girl, aged respectively eight, five and four years. They were lying in one heap, the smallest child beneath all the rest, and the mother endeavoring to shelter them all from the bitter cold. Each was scantily clad, and the party presented a most pitiable spectacle in their half-frozen condition. An investigation by the officer revealed the woman's name to be Elizabeth McIntire, and her age to be twenty-six years. She is the wife of a young man who is very dissolute in his habits, spending all his earnings for rum, and utterly neglecting his family. The woman is also said to be addicted to the use of intoxicating liquors. Seventeen weeks ago this family went to live in a tenement at No. 197 Endicott street, rented by a man named McAlear. They have not paid a single cent of rent, and finally the landlord told the woman that he would give her a room in the house, free of rent, for herself and children, provided she would leave her husband; that he would not have the latter around undor any circumstances. This offer the woman positively refused to accept, and as a consequence found herself turned out of doors. Several of the neighbors also offered to care for her and her children if she would leave her husband, but all in vain.—*Boston Herald.*

Hand vs. Head Labor.—At a recent distribution of prizes at Greenwich, Mr. Gladstone delivered an eloquent address, in the course of which he said that one of the first results of elementary edncation was to produce a desire on the part of young persons or their parents to escape from the necessities of mannal labor, and pass into what is called head work. Here they had before them a very important subject. There was far too mnch eagerness on the part of the working classes to get out of the working class into another which was not a working class. The first thing a man ought to do was to elevate his vocation. A workman ought to strive to raise the character of the work he performed, and in doing that he was doing more to raise himself and his family and class than by hurrying out of his position. Hand labor was progressively and rapidly rising, whereas head labor was falling. The ex-Premier, in conclusion, urged that what the workingman shonld aim at was to raise the character of the labor which he was called npon to perform.

A Practical Test Proposed.—A newspaper controversy has finally arrived at this point: The advocato of spiritualism offers, for $250, to allow his antagonist to shoot a pistol hall through the head or body of whatever or whoever shall appear at the window or door of a cabinet—the party agreeing that a face and body shall appear. This is the first practical use of spirits ever invented.

The Vowels.—There are two words in the English language that contain all the vowels in regular succession, and if a person is willing to live abstemiously, and not regard this statement facetiously, he will see what tho words are.—*Norwich Bulletin.*

What is the difference between the north and south pole? All the difference in the world.

BADLY STUCK.

Young Folks' Column.

Baby-land.

Here's something to tell your little ones, and while you read the lines and Tom and Lizzie's little white heads lean on your breast, think of the many homes where "Baby-land" is an unknown world or a silent plat in Lone Mountain:

"How many miles to Baby-land?"
"Any one can tell;
Up one flight,
To your right;
Please to ring the bell."

"What can you see in Baby-land?"
"Little folks in white—
Downy heads,
Cradle beds,
Faces pure and bright!"

"What do they do in Baby-land?"
"Dream and wake and play;
Laugh and crow,
Shout and grow,
Jolly times have they!"

"What do they say in Baby-land?"
"Why, the oddest things;
Might as well
Try to tell
What a birdie sings!"

"Who is the queen of Baby-land?"
"Mother, kind and sweet;
And her love,
Born above,
Guides the little feet."

For Boys and Girls.

My little boy wakes early, and delights to creep slily into bed and wake me with kisses.

One morning, coaxing him to lie still awhile, I fell asleep again. When I awoke he was looking very sadly at me; perhaps my closed eyelids had made him think of a neighbor's child he had seen sleeping the sleep of death.

Sighing, he said softly, "Mamma, what do little boys do when their mammas go to heaven and leave them behind?"

My own mother left me so when I was nine years old. While now my boy's anxious face lay close to mine on the pillow, there came over me smothering memories of the lonely days that came after, when she was not there to help me off to school, nor to welcome me home at night—those motherless nights, when first a servant put me to bed.

"I wish, Harry, neither you nor any little boy or girl need ever know *how* hard it is to live without a mother?"

So I said to the little fellow; but to you older boys and girls I can't help giving an older wish; that you who have a mother love her *carefully*. Be as good as ever you can be, and you cannot equal her goodness to you.

Girls, be quick to save her steps about the house; she has taken miles of steps for you before you could stand alone.

Boys, you will always be in debt to your mother. Money cannot hire such faithful service as her's has been; it can hardly be paid for in pnre heart-coin, *love!*

A Great Mother to a Great Son.

The mother of John Quincy Adams said. in a letter to him, when he was only twelve: "I would rather see you laid in your grave than grow up a profane and graceless boy."

Not long before his death, a gentleman said to him: "I have fonnd out who made you."

"What do you mean?" asked Mr. Adams.

The gentleman replied: "I have been reading the published letters of your mother."

"If," this gentleman relates, "I had spoken that dear name to some little boy who had been for weeks away from his mother, his eyes could not have flashed more brightly, nor his face glowed more quickly, than did the eyes of that venerable old man when I pronounced the name of his mother. He stood up in his peculiar manner and said,

"'Yes, sir; all that is good in me I owe my mother.'"

A child, when told that God is everywhere, asked—"In this room?" "Yes." "In the closet?" "Yes." "In the drawers of my desk?" "Yes, everywhere. He's in your pocket now." "No, he ain't, though." "And why not?" "Tanth I ain't dot no pottet."

"What did you hang that cat for, Isaac?" asked the schoolmarm. The boy looked up, and with a grave look, answered—"For mowtiny, marm!"

Good Health.

Prevention of Chilblains.

Messrs. Editors:—Appropriate to the season I send you a few lines for the "Good Health" column. As the minor miseries go very far to make up the grand total of human suffering, he who alleviates a single one of them does some good in his day and generation. Any one troubled with chilblains, which is no small grievance, who will pursue the following directions will find it worth a year's subscription to the Press.

Some thirty years ago a matronly old lady directed me, for this complaint, to put my feet into half a bucket of cold water containing a half ounce of borax dissolved therein.

The relief was very satisfactory, and three or four repetitions during the winter kept me completely free from the tormenting affliction. I afterwards omitted the borax and the result was the same. Should the plain water be too simple and cheap, one might put in five grains of morphine or ten drops of tincture of belladonna, or strammonium, or aconite, for their narcotic effect, or five grains each of acetate of lead and sulphate of zinc for their cooling and astringent effect, or a little hydrate of chloral (that's the fashion) for its—well, for some kind of an effect. None of these in small quantities will do any harm—nor any good. The water needs no adjunct; it will do the whole business.

The philosophy is this: Persons so afflicted are those of loose muscular fiber, and the cold water contracts the capillary vessels, and gives them tone to resist their engorgement. Where heart or lung disease exists the temperature of the water should not be below sixty deg. Fah. W. T.

Bingham, Utah.

Poisoning by a Lamp Shade.—At a recent meeting of the medical society in Bonn, Professor Zuntz brought forward a case in which a gentleman who had for several years been subject to migraine observed that for some days he had headache late in the evening, which, without interfering with sleep, continued in the morning, and was accompanied with loss of appetite and *malaise*. In about a fortnight the symptoms became more severe and lasted the whole day. At the same time similar symptoms, but much less severe, appeared in two students who sat at the same table in the evening. The green shade of the petroleum lamp was suspected of being the cause of the mischief, and on chemical examination it was found to contain arsenic. Its use being discontinued all the symptoms ceased in the three individuals. It was evident that the heat of the lamp had set free the arsenic, and the greater severity of the symptoms in the first mentioned individual was due to the fact that he was near sighted, and therefore sat nearer the lamp than the others did. Professor Zuntz said that he himself was some years affected in a similar way, though less severely, while using a green lamp shade, in which arsenic was found.

Death from Tight Lacing.—There has just died at Pimlico, Mrs. Kezia Wheeler, an old lady at the age of 77, on whom an inquest has been held. Mrs. Wheeler was found dead in her bedroom on Sunday morning last, dressed for church, and with her Bible in her hand, having apparently expired suddenly. The surgeon said death had resulted from the bursting of an aneurism, and the post-mortem examination revealed terrible evidences of tight lacing on the part of the deceased, who had been a very beautiful woman. In fact, one end of the old lady's ribs had been pressed against the internal organs, and had kept them constantly at half action, as it were, until apparently an aneurism was produced by the sudden rupture of which she died. Mrs. Wheeler must have been an exceptionally healthy woman to have thus lived in spite of the corset which imprisoned part of her organs and interfered with their natural development; had she not laced she would doubtless have been a centenarian. —*London Daily Telegraph.*

Starved to Death.—The New Haven *Journal* says: "A strange and painful fate was Policeman John Benson's, who died on Thursday in Norwich, at the age of sixty-eight. For three months he had suffered from a cancer on the tongne—possibly a result of too much smoking. For two months past the tongue has been so swollen and sore as to absolutely prevent all eating, and the sufforer was kept alive by semi-liquid food given by means of a tube. During the past ten or twelve days it has been almost impossible even to introduce this tube, so bad was the cancer growing, and for four or five days before his death the poor man was literally starving to death. The immediate cause of death was pronounced to be starvation. His relatives and friends, aware of the fate which was coming to him, stood powerless to avert it. Thousands will remember Mr. Benson as the excellent and efficient manager of the police every summer at the Willimantic camp-meetings."

Chapped Hands.—The easiest and simplest remedy is found in every one's kitchen closet, and is nothing more than common starch. Reduce it to an impalpable powder, put it in a muslin bag, koep it in the table drawer. Whenever you take your hands out of dish water or suds, wipe them dry with a soft towel, and while yet damp shake the starch bag all over them and rub it in.

Domestic Economy.

Choice Treatment of Food.

In the choice of foods we cannot exercise too much care. It is cheaper to procure only the very best articles. All vegetables and fruits should he grown on the best soils, and the fertilizers used should be well decomposed and not fresh and rank. Partially decayed food of whatever kind should be avoided. For breads, the best white wheat is noue too good. If grown in new soil it is likely to be better and to contain abundance of the mineral matter so needful to health. Fruits for eating without cooking should be ripe, tender and not too tart; while those for cooking may be either sweet or sour, but they must possess the peculiar quality of retaining when cooked their best flavors. Potatoes should be fresh and ripe—old ones are less wholesome, especially when they have been exposed to the light and air, and bruised by much handling, or long exposed to cold.

Animal food should be chosen with great caution. Only healthy animals should be used for eating. They should be neither too old nor too young, too fat nor too lean. In butchering, all the blood shonld be removed from the body, as otherwise the flesh putrefies readily. It should be thoroughly cooled before eating. It is also desirable that the animal be not killed for several hours after eating or after fatigue. The long journeys animals are sent on crowded, filthy cars, render their flesh unwholesome.

The treatment of animal food is a matter of importance. Why do we cook it at all? First, to render it more pleasing to the sight; second, to develop its best flavor; and third, to render it digestible and palatable. Flesh cooked too much is rendered innutritious and indigestible; if cooked too little, it is disagreeable eating. Liebig said he would never have flesh snbjected to a higher temperature than 170 degs. Fah., except for a few minutes after it is put into the pot, when it may be submitted to a temperature of boiling water in order to coagulate the albumen into a sort of crust on the outside to hold in the flavors that might otherwise be evaporated. In roasting meat, also, let the heat at first be high, and gradually decrease to the boiling point for the same reason. Stewed meats are more wholesome and nutritious than any other. The process renders flesh tender and succulent and easy of digestion.

The Origin of Pumpkin Pies.

The pumpkin pie is considerod a purely American dainty, and ample justice is done it at each annual return of the holidays. It is to be hoped the institution will lose none of its patriotism and favor, and that the digestion of its lovers will not suffer when they discover that this specialty of the Yankee, in which he, or, more properly speaking, she—for the wife is the concocter—takes pride, is no American specialty after all, but existed in England two hundred years ago, and is to be found in "The Complete Cook," published in 1655.

The English pie is a much more elaborate affair than that of the Yankee, and contains more ingredients. As the season of good things is now at hand, when noveltics of this kind generally prove acceptable, we give the recipe, which is so old, it can, like the dresses worn at the same period, be introduced to this generation and called new:

"*To Make Pumpion Pie.*—Take about half a pound of pumpion and stew it; a handful of thyme, a little rosemary, parsley, and sweet marjoram slipped off the stalk, and chop them small; then take cinuamon, nutmeg, pepper, and six cloves, and beat them; take ton eggs and beat them; then mix them and beat them altogether, and put in as much sugar as you think fit; then fry them like a froize; after it is fried let it stand till it be cold, then fill your pie; take sliced apples thin, round ways, and lay a row of the froize and layer of apples, with cnrrants betwixt them while your pie is filled, and put in a good deal of sweet butter before you close it; when the pie is baked, take six yelks of eggs and some white wine of vergris (ver-juice,) and make a caudle of this, but not too thick; cnt up the lid and put it in; stir them well together until the eggs and pumpions bo not perceived, and serve it up."

Now, any lady adventurous enough to try this pie can call it by a French namo and give a dinner party to introduce it.

Oatmeal and Cocoanut.—Oatmeal mixed with grated cocoanut produces a very attractive cake to both old and young. Take three heaping teaspoonfuls of grated cocoanut, or two of tho prepared dessicatod cocoannt; add to it half a pint of the finest oatmeal and two heaing teaspoonfuls of sugar; stir it into ono gill of boiling water, and mix it thoroughly together; turn out on the rolling board, well floured, and roll it as thin and cut out as for common cracknels; put a bit of citron and a half dozen currants into each cake, sticking them into the dough. Bake in a slow oven and watch carefully lest they brown a shade too deep. To make them crispy let them stand a day in an uncovered dish.

Graham Flour Puffs.—One qnart of sweet milk, two eggs, flour to make in a thin batter, fill the gem cnps two-thirds full, bake in a qnick oven.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—

	1 week.	1 month.	3 months.	1 year
Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

OUR CLUB TERMS are not exclusive. All Grangers and individual farmers are invited to send us the names of any five or more yearly subscribers at $3 a year each, cash in advance. We ask *all* to help to build up the paper and increase its usefulness, and are willing to make this deduction on account of those who are willing to spend their time for the cause of agricultural intelligence.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, February 5, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Wheat in California and Minnesota; Is This Agriculture? Pagan Temples; California Fruits for the Army; Agriculture at the Capital, 81. The Week; The Garden of the Farm; Timely Topics; The State Agricultural Society; Our Improvements, 88. Editorial Notes; Fruits and Fruit Nomenclature; The La Belle Wagon, 89. Patents and Inventions, 92.

ILLUSTRATIONS.—A Pagan Temple, 81. La Belle Wagon, with California Rock Bed, 89.

CORRESPONDENCE.—A Question in Summer Fallowing; Santa Cruz; The Uses of Alfalfa; Palace of Winter, 82.

ARBORICULTURE.—Timber Growth; The Osage Orange in Wagon Manufacture, 83.

HORTICULTURE.—Manuring the Orchard; A Sweet Scented Product, 83.

THE DAIRY.—Butter Making, 83.

PATRONS OF HUSBANDRY.—Grange Directory; Loans, not Losses; Important to Patrons; Helping Other Granges; Thompson & Shankland; Pomona Grange in Stanislaus County; Reports, 84. From the Granges; The Granges of El Dorado Co.; Worthy Master's Decisions—Communicating the Word; Election of Officers, 85.

AGRICULTURAL NOTES from various counties in California and Oregon, 85-92

HOME CIRCLE.—My Neighbor's Baby (Poetry); Concerning Hogs; Pests; Men as Lovers; The Ducks; A New Peach; More Moral Courage Wanted; How to Treat Unexpected Guests; "Home, Sweet Home;" Are we Degenerating? Children Studying at Home; Fading Away; Early Rising a Delusion; A Cargo of Music; Look out for Mother Earth; Praising the Work of Friends; Didn't Want that Kind of Sign, 86. Embroidery that is Worth While; A Wife's Love; Hand ve. Head Labor; A Practical Test Proposed; The Vowels, 87.

YOUNG FOLKS' COLUMN.—Baby-land (Poetry); For Boys and Girls; A Great Mother to a Great Son, 87.

GOOD HEALTH.—Prevention of Chilblains; Poisoning by a Lamp Shade; Death from Tight Lacing; Starved to Death; Chapped Hands, 87.

DOMESTIC ECONOMY.—Choice Treatment of Food; The Origin of Pumpkin Pies; Oatmeal and Cocoanut; Graham Flour Puffs, 87.

QUERIES AND REPLIES.—Growing Evergreens; Paper Mills; Crops for Rent; Preserving Pencil Drawings, 89.

THE VINEYARD.—Australian Vines; Raisin Drying Floor; The Vinicultural Club, 90.

USEFUL INFORMATION.—Aniline Pencils, Copying Pencils, Etc.; A Rule Worth Remembering; Air Cooler; Preserving of Hops; Cleansing Water Mains, 90.

STOCK BREEDERS.—Breeding for Useful Qualities, 94.

MISCELLANEOUS.—California and Colorado Loco Poisons; Oil Paint for Floors; Water-Proof Dressing for Leather, 82. Annual Meeting of the State Agricultural Society, 92. Poisonous Potatoes, 94.

The Week.

THE sun shines again. There is every prospect now that we shall have a cessation from storms, and a season for doing the work that needs to be done. There is still a vast amount of plowing to be done, and in some sections the farmers have wondered whether, indeed, they were to have a seed time or not this year. But it will come in due time, and if the diligent workman is ready to put in his hand at the proper moment, all will be well.

WE give our readers, this week, a paper with an unusual variety of interesting topics. Our correspondents treat of several valuable and practical points. Our departments give fresh information concerning maintaining the fertility of orchards, the way to make good butter, the growth of timber, the useful in stock breeding and other important topics. Editorially we have endeavored to bring before our readers several things which it is seasonable to discuss Not a pleasant task has been to protest against the way in which our State agricultural society has been conducted; but the protest must be made. Our market report will be found full of the latest commercial news.

The Garden of the Farm.

The place of the garden in agriculture has never been equal to its merits. It is true that the efforts of the professional gardener are appreciated, and the skillful market gardener has succeeded in drawing a mint of profit from a narrow piece of land. But the relation of the garden to the farm is not fully understood. Even at the East the farmer's garden is too often an unsightly weed patch, because he does not appreciate the comfort and health which comes from the varied diet which the garden furnishes, but rather, day after day, breakfasts and dines upon heating pork, when he might cool and refresh his blood with wholesome vegetables. The features of the matter are a little different with the California farmer, for he, heavy with the returns from large, profitable crops of grain, comforts himself with purchased vegetables. Either of these methods is not right. In one case it may be a sacrifice of health, in the other a reduction of legitimate farm profits. Both are unnecessary, because the proper appreciation of the value of the farm garden would show its ability to remove them.

It is time now for active garden work where the soil is ready. We do not believe in elaborate gardening on the farm, except where the owner has a taste that way and can afford to gratify it. The end should be rather to produce a good stock of what may be called the useful vegetable and small fruits in contrast with the fancy growths, which require special care when other more important duties may be pressing. Our idea of the farm garden is a piece of ground for business and to be managed in a business-like way. We believe in the garden for its culture of taste for the beautiful; the landscape garden, with its charming vistas; the flower garden, with its wealth of form and color; but the garden which should be considered a necessary adjunct of the farm, is one which will supplement the profits from the farm in furnishing a comfortable life to the family.

Nearly every farm has a piece of land which can be made to serve this useful purpose. It need not be a spot of dark bottom land, although this would be the choice if it exist on the farm. Any spot may be made to do good work if the farmer go at his gardening with a will and give it a little time and preparation. The soil should be a light loam, either natural or artificial. If it be heavy naturally it can be lightened up by drawing on sand or other matters to enter into its composition and break up its tenacity. The land should be stirred deeply and enriched just as much as the best available manure will do it. There should be preparations for irrigating and as the water required will be small, the water-drawing machinery already on the farm will be sufficient.

Although we do not think it necessary to detail the steps of laying out the farm garden, because every farmer's taste or necessities will determine them, we will say that the idea should be at the outset to so arrange the garden and its contents that horse power can be employed as much as possible. The pretty arrangement of beds and walks is commendable for the eye, but it is not best for the general farm garden, where the farmer has to make effective every moment which the garden can claim. It will be found best to grow the vegetables in long continuous rows, so that the cultivator can pass from end to end, cutting out every noxious growth and leaving standing only the useful lines. An oblong patch will be found best adapted to the working by horse power. Fence it securely against all intruders. Give it thorough and clean cultivation. Enrich it with the richest composted manures. Deal with it on prompt business principles. The hours devoted to it will then add to the comforts of the home. It will give fresh and strengthening food, and will help fill the purse by stopping a drain upon it and by strengthening and nerving the hand that fills it.

While we advocate a farm garden judged directly upon its usefulness, we would not be understood to reflect at all upon the gardening on the farm which has its aim to beautify and adorn. Far from it is our thought; for the adornment of the farmers will come in due time. It will come with the better farm buildings which we look forward to for the farmers of the State. These will come when our first duty is done to the soil in securing means to ensure its ability to give us full and continuous crops. They will come with the gradual advance of our agriculturists in that work which will result in success and competence. Then we shall have buildings and grounds to match the peerless quality of our soil and clime, and shall reach a condition of culture and prosperity of which the present is only a foreshadowing.

ON FILE.—"Grange Songs," C. A. C.; "Mary Ketch and the Law," Mrs. N.; "Farmers' Wives and Kitchen Conveniences," M. A. S.; "Recipes," L.; "Typhoid or Intermittent Fevers," E. B.; "Installation Address, Galt Grange," J. E. F.; "Tree Planting," G. W. M.; "Cherry Culture, No. 2.;" "Angoras," L. H. G.; "To Thee," F. W.; "Travels about Santa Rosa," J. B. A.

THE next college regatta will be rowed at Saratoga, the association paying $8,000 to the regatta committee for expenses.

Timely Topics.

On every farm there is winter work to do. The character of the work depends greatly upon the location of the farm. At the Arctic East, where the snow covers the farm with a coating sometimes heavier than the mortgage, the farmer's winter work, aside from the care of his stock, consists largely in in-door carpentering or out-door chopping, relieved by the enlivening gossip of the country store or the village bar room. Upon his fields the snow is doing its own enriching work, without his care.

In this State, out-door work is possible during all the winter weeks except at the time of the heavy rainfalls. Here, too, as nowhere else, perhaps, the results at harvest depend upon the action during the winter. Measures for enriching the grain fields are in order now, the rain is doing its part and the reports from all parts of the State indicate that it is doing it splendidly. But there are ways in which the wide awake farmer can supplement the rainfall and make assurance of a crop doubly sure.

Winter irrigation has proved itself a most potent surety of a profitable yield in many cases. Where the surface rains fail of sufficient amount, the earth can in many places be supplied by artificial means. It is observed that from twenty to twenty-five inches of rain are necessary for a full yield, and if this much be stored in the soil the harvest is reasonably sure. It is an interesting fact that one year's excess seems to be a surplus in store for the next year's possible deficiency. Thus a thirty-five inch rainfall gave good crops the second season thereafter with but fifteen inches additional. These facts are of value, as they point the way in which the farmer may bridge a season in which the clouds seem neglectful of business. It may be done by winter irrigation, and in many places this can be effected without excessive trouble or outlay. There are all over the farming counties creeks which descend from the mountains, carrying torrents of water during the winter and baring their beds when the dry season approaches. If a little care and outlay is had this water may be made to drench the adjacent country thoroughly and send its enriching ability far down into the soil, whence the growing crops can draw it in their time of need. This work should not be shrunk from, for it has been proved able to make an oasis wherever its benefits can be applied. We find in the Stanislaus *News* of last week a case in point which shows clearly the advantage of winter irrigation.

Messrs. Crow, whose possessions are situated adjacent to the Oristimba creek, on the west side of the San Joaquin, notwithstanding the heavy rainfall the present season, have by dams and ditches succeeded in flooding several thousand acres of their best lands with water from the creek. These gentlemen go upon the theory that the soil, during the winter season, cannot be made too wet. The creek is a large mountain torrent flowing from the Coast range. During the summer months, after leaving the narrow passes in the mountains, it becomes dry. In the winter it usually carries a large amount of water, and often, owing to the extent of mountain country it drains, overflows. Last winter the experiment of turning this out on the plains was tested by one of the gentlemen named to a limited extent. The result was that thirty bushels to the acre were produced on the lands flooded, where the same class of lands not treated to a like treatment failed, owing to the drouth, to give any yield whatever. The soil, having become thoughly wet to a great depth, retained moisture longer, and was thus enabled to produce a fair crop of grain. When the fact is understood that the soil in that locality is not only very rich but of great depth, being made land from the mountains, it can readily be seen that every foot in depth the moisture descends during winter is drawn upon to supply the surface through the long and heated spring and summer months.

This matter is worthy the attention of every cultor of the soil. He can soon decide whether his location is accessible to a refreshing flooding of this kind, and if it is, there is a value to time if rightly used. It will assure him a good return from his land while the clouds hesitate or while a more perfect and elaborate system of irrigation lingers in the brains of the lawmakers.

Another topic, which is now timely, is preparation for late spring irrigation in places which will admit of it. These are matters which call for active thought and active hand, and which make the California farmers' winter not a time of "tinkering," but a season for best planning and earnest execution.

MORE LIGHT ON THE SUBJECT.—Since our last article on the cutting of the Parks dam, we have received information which shows that the grievances of the farmers whose lands were damaged by the construction of the dam were most insufferable. We are promised further important facts in the case, which will be presented to our readers without delay when received.

IT is now believed that the whole amount of losses by the Northampton bank robbery exceeds $1,000,000, nearly one-half being negotiable.

THEY are already beginning to engage rooms for the Centennial.

The State Agricultural Society.

We print elsewhere a report of the recent meeting of the State agricultural society in Sacramento. We were not present at the meeting, but all reports which we have received agree in showing the meeting to have been no credit to the State nor to the parties engaged. We blush for the State that such proceedings are undertaken under the name of agriculture.

We notice that the Assembly Committee on Agriculture has been instructed to investigate the affairs of the State agricultural society. Bad management is alleged against the conductors of the organization, and, while this is the complaint, it is fitting that a most thorough investigation be held, in order that the truth be known, be it what it may. We are not informed of any pecuniary misdeeds, and it will probably be for the benefit of the gentlemen interested in the management to have their records searched.

We have, however, a ground of complaint against the management of the society. It is this, simply and plainly: It purports to be the State agricultural society. All its deeds and policies are undertaken under the name of agriculture. In this respect it has not been true to its name. It has not been managed by farmers nor in the interest of farmers. While the field has been fine for a display of agricultural productions and achievements which would rival any of the State fairs of the Eastern States, we have not had them. Other policies have prevailed. Instead of giving the agriculture of the State a healthy impetus and advancement, such as it is the scope of a first class agricultural exhibition to afford, our society has done otherwise. This is our complaint against the organization.

We do not set ourselves up as arbiters of men's tastes nor employments, though we can say that the scenes which have been most characteristic of our State fairs have not been those which we choose. The great point is, however, rather that what has been done has been beneath the flag of the farm. And in this respect our case against the society is less for what it has done than for what it has left undone. It is fitting that the representative agricultural society of our young and vigorous agricultural State should be thoroughly, progressively and intelligently agricultural. It is the expectation of the farmer that its energies should be directed toward fostering measures which will result in the improvement of farm stock and the improvement of practice, and the advancement of the industry in all its branches. This is the proper field of labor for a State agricultural society. Because the existing society has not devoted itself to this work, but has engrossed its energies in other directions, we have cause for complaint against it. We cannot see the advantage to agriculturists of a State society conducted neither by agriculturists nor in the interest of agriculturists.

Our Improvements.

We are receiving abundant testimony that the measures which we have adopted for the convenience of our readers, in presenting them a paper which opens like a book, are valued and prized by them. The following letter seems to express the general sentiment of our correspondents:

MESSRS. EDITORS:—The stitching and trimming of your interesting paper are commendable improvements, and if not openly acknowledged as such, are silently appreciated and receive the approval of many readers.

With much pleasure I note the advancement of the RURAL PRESS, and am still of the opinion that it is just the paper for all farmers and all others who are interested in agricultural pursuits. After a careful reading of each week's issue they cannot fail to obtain some news of interest, and by practicing suggestions given, facilitate their work even in this age of improvement.

San Ramon, Contra Costa Co., Jan. 24th.

General News Items.

NEW MEXICO wants to be a State.

THE Alfonsist troops have had several sucsses lately.

MORE snow blockades on the Central Pacific railroad.

QUEEN VICTORIA is again about to move in society.

THERE is a prospect of Dupont street being widened.

PAUL BOYNTON swam thirty miles the other day, from Alton to St. Louis.

VICTOR HUGO and ex-President Thiers have both been elected Senators of France.

THE Japanese commissioners to the Centennial arrived here this week on the *Belgic*.

JOHN C. CRESSON, of Philadelphia, a prominent civil engineer, died on Friday.

A RESOLUTION has been adopted by our board of supervisors authorizing the appointment of a committee of three to make arrangements for the proper celebration of the Centennial national anniversary.

Queries and Replies.

Growing Evergreens.

Messrs. Editors:—Will you oblige your readers with an article on the cultivation of trees, more especially of evergreens. What is the proper time of the year to prune Monterey cypress, and the proper age at which the pruning should begin? F. W. Parker.
Moro, Cal.

The Monterey cypress is of very easy culture, especially if young plants are selected, say one or two years old. Damp or cloudy weather should be chosen for transplanting. If dry and frosty weather follows, the plants should be shaded for one or two weeks. Evergreens should not be pruned when transplanted, and but very sparingly, if any, the first year after removal. The cypress, junipers, arbor vitæs, acacias, encalyptus and many other kinds of evergreens, may be pruned at all seasons of the year in this climate, but for a severe cutting or general pruning perhaps late in the fall is the best time, because evergreens are nearest dormant at this season of the year. The age at which pruning should begin depends upon the size and form one wishes to train a tree or plant. We use the knife and shears in the nursery very often, and at all seasons of the year, to give form and symmetry to evergreen trees and shrubs. W. H. Pepper.
Petaluma.

Paper Mills.

Messrs. Editors:—Will you be kind enough to answer the following questions through the columns of your paper. (1.) How many paper mills are there in this State? (2.) About how much would the machinery of an ordinary sized mill cost, and what amount of capital would it require to run such a mill? (3.) Does the business require much skilled labor?
Anaheim, Cal. Subscriber.

1. There are six paper mills in this State. Three of them are not in operation.

2. We are informed that a company is now being organized to buy a mill which is fitted for straw wrapping paper, and it is estimated that $40,000 will be needed to purchase the mill and have a sufficient amount for working capital. The machinery to make straw wrapping paper (sixty-two inch machine) would cost about $20,000; if steam power is used, $6,000 must be added for engines, etc. It is estimated that $15,000 additional would be required to put in machinery for making print paper. The amount of capital which could be used is indefinite, because the paper stock can be piled up to any extent. The trouble seems to be to sell the paper. We are told that the three mills not now in operation shut down because they could not sell their product. The market is limited.

3. The business requires skilled labor. There must be a foreman who knows the business from end to end, and manufacturing paper requires a complement of skilled laborers as in other branches of manufacture.

Crops for Rent.

Messrs. Editors:—Will you be kind enough to inform me through the columns of the Rural Press what the law is in your State as to renting land, and taking, as pay for rent, a part of the crops. Should a mortgage be taken or are you secured by State laws?
Greensboro, Alabama. Subscriber.

Any arrangement of the kind our querist mentions must be made by stated agreement between the parties duly drawn. The law of contracts in this State upholds the terms of agreement, whatever they may be. If the party is in doubt concerning the responsibility of the other party, he should require a bond. Mortages are taken where payments are made upon land.

Preserving Pencil Drawings.

Messrs. Editors:—Will you please tell me what will preserve lead pencil drawings in order to keep them from becoming disfigured so easily. E. W. T., Napa.

Apply fresh milk over the surface of the drawing with a broad fine brush. Do not use a sponge, as it will smear the drawing.

Personal.—Mrs. Elisa E. Anthony, the well-known newspaper correspondent, has taken up her permanent residence in Santa Cruz, where those desirons of availing themselves of her talent can address her. Mrs. A. wields a graceful and facile pen, and has contributed many meritorious articles to the Rural Press and many other California journals. One of her articles will be found in the Home Circle department of our present issue.

There have been several floods in Ohio and Indiana.

Editorial Notes.

One of our interior exchanges calls attention to the fact that gross frauds are possible under the Contra Costa squirrel bill, under which a man is not allowed to show any fact but non-ownership when a squirrel tax is levied on his land. The authority which we allude to says: He is not permitted to plead that there are no squirrels on the land; that the inspector has not killed any; that the bill is false in stating that the inspector was on the land on a certain day; that the inspector used a harmless stuff for poison, and so on. There will be gross injustice in the passage of any bill that does not contain the following limitations:

1st. The squirrel tax must not exceed the amount of the State tax on the same land.

2d. The bill of the squirrel inspector must state the day on which he performed his labor and the method or material used for killing the squirrels.

3d. No land more than a quarter of a mile from a large cultivated field should be subject to the tax.

4th. The defendant in any suit for a squirrel tax may plead that he is not the owner of the land, or the squirrel inspector has failed in any point to comply with the law, or that he has not done any effective service in killing the squirrels on the land in question.

There has arisen in Grass Valley a little case of miner vs. agriculturist. It is not the full grown debris question, of which we have heard so much. Some miners went to work upon land for which a farmer held a U. S. patent. In the *Foothill Tidings* is printed the following: A gentleman at Placerville wrote to Judge McFarland asking a question, substantially as follows: When the General Government has patented any of its lands to an agricultural claimant, under the pre-emption or homestead laws, and the land turns out to be actually mineral, and the patentee has granted to other parties the right to mine on part of the land, is the latter grant valid? The Judge says: To this I answer, as Register, that after such a patent has been issued, no other application of any kind to purchase any portion of the land will be received at this office. It may be added, although as Register I have nothing to do with it, that the patent in such cases carries the full legal title, and that, of course, the patentee can make any sale of or contract about the land that is recognized by the general laws of the State. He would, undoubtedly, have the power to grant the privilege of mining it.

The Colusa *Sun* sheds a peculiar light. It claims because we declared that an illegal act, like the cutting of the Parks dam, would have an effect toward the restraint of capital which would otherwise be invested in useful interior improvements, therefore we reflected upon the credit of the farmers of the State. This is one of the most strained and unwarranted conclusions which we ever saw drawn. The Colusa *Sun* ought to know that every effort to frown down and punish an illegal act is a thrust, not at the credit of the farmers, but at those who are so conducting themselves as to destroy it. It gives a community strength to oppose wrong and uphold law. It is a word tending to strengthen the credit of the farmers when we say that they do not countenance illegality, and to prove it, they do not countenance the wrong-doer. This is what we said before and this is what we say again. We are for the upholding of the farmers' credit every time, and we do it upon the very ground which every farmer worthy the name occupies himself, and that is the ground of right and law. Our whole case was against the method of the act. If the law does not protect the right, then we must change the law. If dangers menace a community, and would have been considered incredible two years ago. There was no restriction as to fertilizers. Each grower applied as much and as rich manure as he desired. The result is very interesting. Ten barrels of potatoes from one pound of seed sounds like a California crop, and yet it was done on the prairies. We should like to hear of some California potato growers entering the contest and securing the prize this year.

Senator Nunan has introduced a bill for the preservation of fish, which promises good results. The proposed bill regulates the mode of fishing, gives to the small fish a chance for the fittest to survive, and drives from our waters the Chinese with their powder bombs, fine nets, stationary traps and other ingenions devices to ensnare the young and inexperienced of the finny tribe. To let the seals alone, and compel the Chinese to give the spawn of the salmon and the little ones an honest chance is the object of the bill.

Advices from Santiago de Chile, December 7th, 1875, announce that the sample fleece exhibited by Messrs. Severance & Peet of this city, has been awarded the first premium at the Chile exposition of 1875-6. This is a good point for California sheep growers. The fleece was a ewe's fleece of 1875, one year's growth, and weighed eighteen pounds. From persons returned from the exposition, we learn that the fleece was looked upon, all in all, as ahead of any other on exhibition.

We have received the report of I. S. Allen, secretary of the San Francisco Benevolent Association for the year 1875. It shows a total amount of disbursements to the poor of $18,570.87. A great deal of charitable work has been done, and the object is a worthy one.

The Scottish rifle club has resolved to accept the American challenge for the championship of the world.

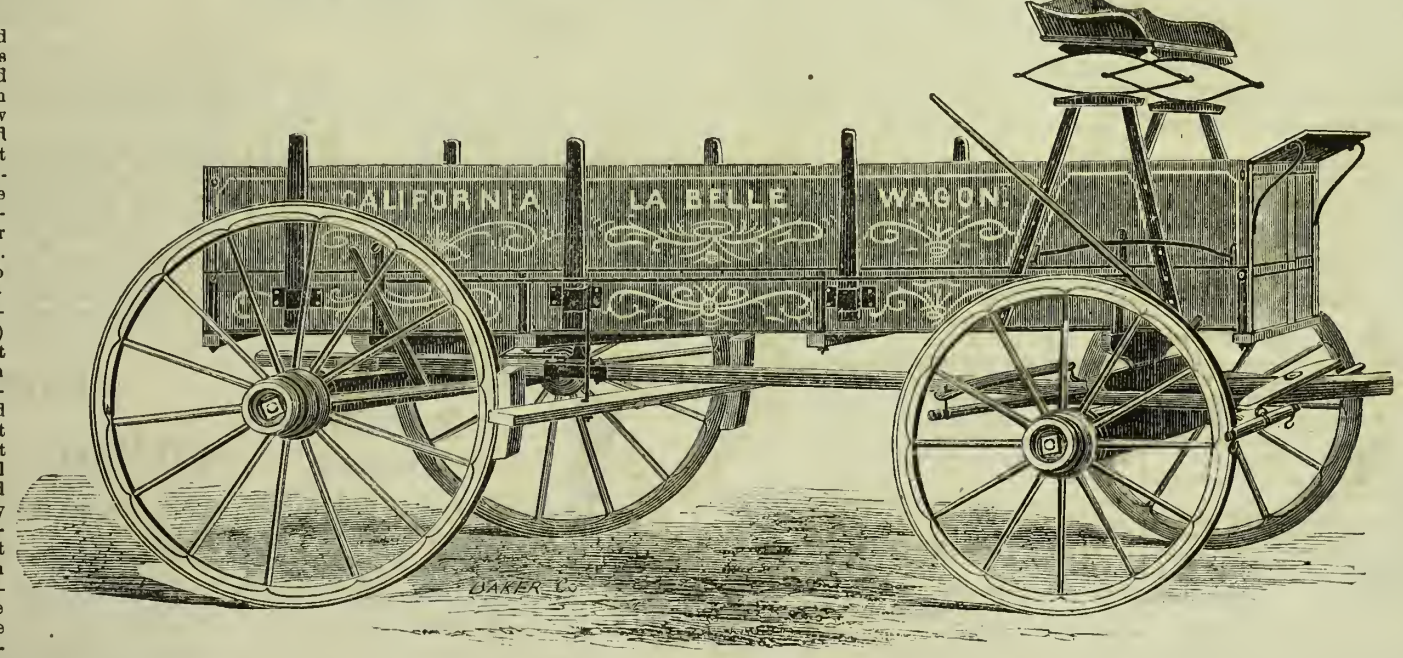
Fruits and Fruit Nomenclature.

Messrs. Editors:—Noticing a communication in to-day's Rural Press from your correspondent, "W. W. S." under the head of "Hungarian Prune," calls to my mind the importance it is to fruit growers and nurserymen of this State to simplify and correct the nomenclature of some of our leading market varieties. Take for instance the variety in the heading of your correspondent's communication. First I will ask, what is the "Hungarian prune?" I cannot answer myself what it is properly, because I do not find the name in our standard fruit books. I believe the name to be of local origin. I believe it was first sent to the San Francisco market under the name of "Hungarian prune." There can be found a very good description of the plum or prune in question in Downing's work on fruits, by turning to "Pond's Seedling" of the English. Myself and some of the San Jose nurserymen are using the French name, "Grosse Prune d' Agen," in preference to the English, because there is an American "Pond's Seedling," quite distant from the English. It is evident from W. W. S.'s description that he is growing a different variety from the one grown at San Jose under the name of "Hungarian prune," for that variety clings to the stone very firmly, as much so as a yellow *Magnum Bonum* or a "Jefferson." I have sent it to the San Francisco market for the past ten or twelve years; shipped the past season for a period of two weeks from one to two tons daily. I have cut from the pit, (when too ripe to ship,) thousands of pounds, and never found a perfect specimen that would cleave from the pit, or that could be termed a freestone. I am explicit on this point, because a number of persons in different parts of the State have written to me the present season for information. They state "your catalogue describes it as a cling, while others say it is a freestone; is your description correct?"

One nurseryman here for several years past has grown and disseminated the "Bradshaw" under the name of "Hungarian prune." Persons the present winter have given me descriptions of the "Hungarian prune" they had in bearing as a strong upright grower, fruit large, dark colored, rather early, and a freestone, but not as free as the "Washington." I suspect that W. W. S. is growing the "Bradshaw," for he gives a good description of that variety.

If this communication shall call out any information from others, or convey any to the fruit growers of the State, then my object in writing will be accomplished. In conclusion I will suggest the propriety to our fruit growers and nurserymen of discarding another local name, that of "Royal Ann" for another of our leading market fruits, the "Napoleon," or "Holland Bigarreau" cherry. W. H. P.
Petaluma, Cal., January 29th, 1876.

We have experienced the difficulty which our correspondent describes, and which arises from a mixed nomenclature. We shall be pleased to hear from other nurserymen whether the prune described as "Hungarian" is a free stone or a cling. Nurserymen should agree as to the proper name of any fruit they propagate, else they may lead their customers into wrong positions. We should be pleased to hear from our readers upon the points which W. H. P. advances.—Ed.



LA BELLE WAGON WITH CALIFORNIA ROCK BED.

The La Belle Wagon.

Our readers have, doubtless, been long "waiting for the wagon." This week we have it, and the ride may be taken. It is "La Belle wagon" It is the California La Belle, especially designed and constructed for California teamsters and farmers. The illustration which we give shows its symmetry and proportion, which gives it the title of "the beautiful." It is strong as it is beautiful. The manufacturers give surety that nothing is used but carefully selected first-class timber and that the work is done by day labor. The other claims of the manufacturers are, light draft because of a particularly excellent skein; wheels boiled in oil before setting the tires; hubs steamed when spokes are driven, thus shrinking the hub around the spoke firm as though it grew there; both lower and top boxes ironed on top, the box strap in the center running up and over the box; boxes of the best timber and throughly braced. These are some of the points which the manufacturers make for their wagon, and these are essential points for durability and worth. All wagons are warranted. The California agents are Frank Brothers, 349 Market street, San Francisco, where may be seen also a full line of agricultural implements.

The Vineyard.

Australian Vines.

The Colony of Victoria is divided by a range of mountains having a general direction of from east to west. At the uorth side of this dividing range is the Sandhurst district, thoroughly protected from the chilling blasts of the south wind, and having its natural sun heat much increased by radiation from the broad, treeless plains which stretch to the hanks of the river Murray, the houndary between Victoria and New Sonth Wales.

This district is one of the largest and best adapted for the production of generons wines. It enjoys immunity from all danger of rainfall during the vintage seasou, and consequently the fruit is ripened to perfection and fermeuted at an even temperature. The climate is hot and dry, but not too dry for the vine, resembling, in a great measure, the climate of the upper Murray, and cousequently the wines produced are entirely of a different character to those made sonth of the dividing range. The last and most important wine producing locality of Victoria is the district of the Murray and Ovens rivers.

South of the dividing range, the Yering district, ahout forty miles northeast trom Melbourne, is the most important.

The Varieties.

The spccies of vines most generally cultivated in Anstralia, are described by Mr. Fallon in the following terms: The Reisling is one of the most desirable grapes to cultivate. Although not a largo hearer, the vine is hardy, the fruit growing in small conical bunches, is far less liablo to danger from rnst hefore vintage than other kinds. The wine produced from this grape is not surpassed in qnality by any other white wine made in the colonies.

Verdeilho produces a generous, rich wine, of fine bouquet; like the Reisling, it is a shy bearer, and easily affected hy the cold winds during the blossoming season. It is a Portugese variety, cultivated to some extent in the Aporte district, and prevalcut in the vineyards of Madeira.

Tho Aucarot grape makes a wine equal to any of the colonial white wines; but, like the Verdeilho, it is tender and delicate while in flower, and a full crop cannot always be relied on.

The Chasselas is a hardy plant, and generally bears a large crop, and from it a pure light wine, of delicate flavor, is made, which is much liked as a dinner wine.

The Pedro Xemeney is a large hearer and produces a strong wiue of good keeping qnalities, hnt rather coarse in flavor, not unlike sherry. Other white varieties cultivated to a less extent are the Palomino, the dominant Xerez grape, the Gonais, the Pineaublanc, with the Marsanne and Roussane, form a combination of which White Hermitage is produced, and the Furment or Tokay grape.

Among the red varieties the Shiraz is a hardy vine—a moderate hearer, yielding a fair crop, and makes a fine strong wine of good quality and flavor. The Shiraz, or Sirrah, as it is commonly styled in Europe, is the Hermitage grape.

The Malbec and Carbenet are both hardy varieties. The plants yield a larger crop than the Shiraz and produce wine of an excellent flavor and houquet, recommended as the best wines that ean be taken hy persons of weak constitntion. They are the grapes from which the finest Bordeaux is made.

The Burgundy is a small producer, but affords an excellent wine. The hunches are small and conical, like the Reisling. A fair average crop may be relied on.

The Roussilon is a prolific hearer, a hardy vine, not subject to blight, producing a most agreeable dinner wine. The Gamais and Mataro are two other varieties. Another popular vine is Brown Muscat, a large hearer, and producing a rich, luxurious wine.

Amount of Production.

The secretary for agriculture of Victoria reports that the vintage of 1875 has surpassed in productiveness that of any previous year. In every wine growing district of tho colony the yield of wine is reported to have exceeded the average of years, and in some it has douhled that of any previous season. The Tabilk vineyard alone has yielded, this vintage, 68,000 gallons of wine, or about 525 gallons per aere over its entire area.

Some idea of the growth of wine culture may be had from the fact that the number of vines in the colony of Victoria during the year ended March 31st, 1875, was 8,545,364.

From these were gathered 19,999 ewt. of grapes, which were not made into wine; the qnantity made into wine and brandy was 90,988 cwt. The total product of the vines is thus shown to be 110,987 ewt.

The quantity of wine produced for the year ending March 31st, 1875, was 577,493 gallons, heing an increase of 14,780 gallons ovor the preceding years. At tho end of March, 1875, the extent of land taken up with vines was 4,937 acres.—*Alta.*

RAISIN DRYING FLOOR.—The Yolo *Mail* thus describes the raisin drying floor lately prepared by Mr. Blowers, the owner of an exteusive vineyard in the suburbs of that town. It covers an area of 700 yards and is in tho form of a horseshoe, about twenty feet wide, and ridged so as to form beds about eight feet between each gutter. These gutters are for the purpose of draining the water off, and the surface of the floor is gently rolling on either side. The surface is of stone cement, and nnderneath the adobe ground was prepared so as to form a solid and substantial body. On this floor he expects to dry all his fine grapes, and thus secure the finest raisins in the world. We helieve the inventiou has its origin with Mr. Blowers. He takes great pride in his vineyard and orchard, and has eighty acres around his home planted entirely in vines and fruit trees.

The Vinicultural Club.

According to appointment at the meeting of the 8th instant, an adjourned meeting of the Vinicultural elnh of St. Helena and vicinity was held at the National hotel, Saturday afternoon last, 22d instant. The president, Charles Krug, filled the chair, and the secretary, H. A. Pellet, was at his post. Although the weather was somewhat disagreeable, the attendance was good, and a fair representation of the vinicultural interest of npper Napa valley was made. Among those present we noticed Messrs. Charles Krug, H. A. Pellet, R. A. Haskin, J. M. McPike, John York, E. M. York, J. Berinuger, Seneca Ewer, T. A. Glauqne, J. C. Weinberger, H. M. Allen, J. Lewelling, C. Wheeler, W. T. Sayward, John Thomann and others.

At two P. M. the president called the meeting to order, and the secretary read the minutes of the previons meeting. Minntes approved as read. Under the head of reports ot committees, Mr. Wheeler, of the Committee on Halls, reported progress, and was, on motion, granted further time. After some discnssion of the hall question, the Committee on Phylloxera were called upon to report, hut said they had hardly carried thoir investigations as far as they would desire, to make a complete report; granted further time. Somo parties had brought roots, which showed signs of sickness and it was feared had the dreaded insect abont them. Others, ou the other hand, reported having submitted roots to scientific examination, and no phylloxera found. The secretary reported that he had, according to instrnctions, written to J. K. Luttrell, our representative in Congress, to inform him of the organization of the elnh, and requesting his influence and exertions in the national halls of legislation in behalf of this most important interest, in this, one of the most important wine produeing regions of the Union. Dr. Crane said that he had also written to Mr. Luttrell, most urgently soliciting his aid in this behalf. Mr. Krng had also written. Mr. Krug mentioned that since the last meeting an event of great importance to the interest had occurred; viz.: the sale hy two members of large quantities of wine at remunerative prices.

On motion, adjourned to the regular meeting time, three weeks hence, (Saturday, Febrnary 5th), the eluh holding its regnlar meetings on the second Saturday of each month.—*St. Helena Star.*

Useful Information.

ANILINE PENCILS, COPYING PENCILS, ETC.—These new pencils are announced at the same time both in Paris and Berlin. The French pencils are made in Paris, according to the hardness, very much like common lead pencils. The materials used are aniline, graphite and kaolin, in different proportions. Made into a paste in cold water, they are pressed through a screen that divides the mass into the slender sticks used in filling the pencils. Wheu dry the sticks are fitted to the wooden parts, and these are glued together very much in the usual way. They may be used in copying, marking in permanent color and in reproducing writing or designs. In copying, a thin sheet of moistened paper is laid over the letter, design or document, and the lines are traced with the pencils. The action of the water on the aniline gives a deep, fast tracing, resembling ink in color. The German makers also employ aniline in the manufacture of these pencils. On ordinary dry paper they give a well-defined mark that canuot he removed by india rubher. When the paper is dampened with water the markings assume the appearance of ink. These pencils may also he used for copying purposes, as when moistened sheets are laid over the writing, under a slight pressure, they will transfer good impressions that do not blnr and that resemhlo the original in every respect. —*Scribner.*

A RULE WORTH REMEMBERING—Here is a rule which will hold good for all dates in the present century since 1852, as well as for those in the present year. In order to find out the day of the week upon which any event fell one hundred years ago, count forward two days from the day of the week npon which the Centennial anniversary falls. For instance, the 4th of July, 1876, will fall on Tuesday; the 4th of July, 1776, was Thursday. The Centennial anniversary of the battle of Bunker Hill was celebrated Thursday, June 17th, 1875. The battle was fought Saturday, June 17th, 1775. This rule must not he nsed for dates in the eighteenth century earlier than 1752, hecause that was the year when the change from "old style" took effect in England and her colonies.

AN alloy for locomotive whistles which will give a clear sound is made of copper, eighty parts, tin, eighteen, antimony, two.

AIR COOLER.—To roduce the temperature in a factory in Paris, recourse was had to an inexpensive form of air cooler. A thin plate of metal, perforated with holes one-tenth of an inch in diameter, and having a total area equal to one-ninth of the surface of the plate, was set at a slight angle in a tight hox. Over this plate a thin sheet of water at a temperature of 55 Fahr. was allowed to flow steadily, aud by means of a power blower air was forced into the box below the plate. By its pressure the air forced its way through the holes in the plate and through the water, and was then led by pipes to all parts of tho factory. By this device, the air in the room was reduced to 57° Fahr., or within four degrees of the temperature of the water. Other experiments gave varying results according to the initial temperature of the water, hut in each case the apparatus reduced the temperature of the current of air to within seven degrees of that of the water. Steam power is required for the hlower, and, for the hest results, the supply of water must be abundant and its temperature low. The application of this device might, in our warm climates, prove of use in pork packing and other industries where a low temperature is desirable.—*Scribner.*

PRESERVING OF HOPS.—A newly palouted method of keeping hops employs carbonic acid as a preservative agent. Air tight, tin lined boxes are loosely filled with hops. Carhonic acid (made in a soda fonntain machine hy the nsual sulphuric acid and marble dust process) is then admitted to the box through a tuhe that reaches to tho bottom. The gas fills the box, driving the air out before it as it rises from the bottom. The hops are then compressed, and more filled in with an additional supply of gas. This is repeated till tho hox is loaded with pressed hops saturated with carbonic acid. The cover is put on, and moro gas is added uuder pressure to drive out tho last trace of air, and then the box is quickly sealed hermetically. The first experiments in this direction proved entirely successful.

CLEANSING WATER MAINS.—It frequently happens in iron water mains that deposits of rnst are formed, sufficiently thick to reduce materially the diameter of the pipe. To clean the interior, Mr. E. Dodds, an English engineer, has lately devised a pipe scraper, which operates as follows: The pipe is cut, the scraper is inserted, temporary joints are made, and the water is turned ou at highest pressure, which drives the scraper on at great speed. In the first experiment, a distance of 300 yards of pipe was thoroughly cleansed in two minutes and 20 seconds.

LEVI STRAUSS & CO.,

Patent Riveted Clothing,

14 & 16 Battery St.,

San Francisco.

Theso goods are specially adaptod for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all now—cost nearly $245,000. Will he kept First-class, at $2.00 per day, and less by the week or month.

H. K. CUMMINGS. 1858. H. H. HALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the producer 4v23-1y

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Gait Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

WILLIAM KNOWLES, P. O. Box 337, Oakland, Cal., has for sale Eggs for Hatching, carefully packed, from Brown Leghorns at $4 per doz. Houdans, White Leghorns and Buff Cochins at $3 per doz; two doz. for $5 Sent C. O. D. to any address.

Poultry.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns.
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Ayleshury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Egg and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F

Office of Drain Pipe Works

S. W. Corner Sacramento and Montgomery Sts., S. F.

DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

E. T. MENOMY

Proprietor.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS COMPANY, 609 Sacramento St., S. F

Miscellaneous Notices.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Gooods, Cigars, Candies, Candied Fruits, Honey, Maccaroni, Crackers, Sugar, Soap, Boots, Etc,

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favor able Prices. Orders from the conntry well attended to

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may he paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetahles, meats, etc.

It would he unwise to purchase the new and untried dryers before they have demonstrated their superiority hy at least one year's regular work. Send for our circulars.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations hy which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,

San Francisco.

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine Imported Australian, French and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,

433 California Street, S. F.

(Merchants' Exchange.)

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood Superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article.

Ask your Grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F

fe6-eow

ALEX. BUSWELL,

BOOKBINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow	$85 00	Extra Shares—No. 1	$3 00	Landsides for single Plows	$2 50
No. 2 " " " "	90 00	" " No. 2	3 50	" " Gang Plows	1 50

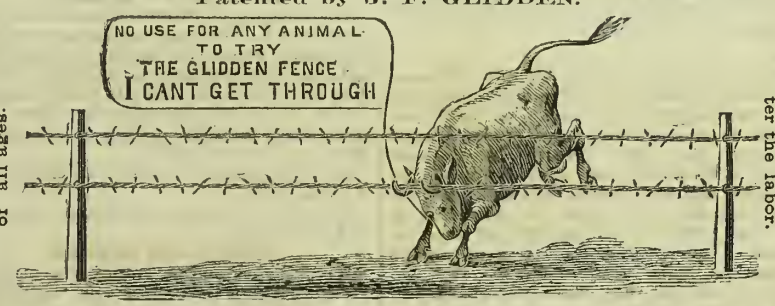
All kinds of casting done on short notice.

San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.



It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can he put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not run against and break it down. 6. The wind has no effect upon it, and fires will not hurn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot he displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot he bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

El Dorado, El Dorado Co., Ca

SANBORN & BYRNES,

STAIR BUILDERS.

Mechanics' Mills, Mission Street.

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Blillard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-hp

Dewey & Co. {224 Sansome St} **Patent Agt's.**

We respectfully invite the attention of wool growers to our fine stock of Cotswool Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-eow-tf Watsonville, Cal.

Lands and Homes for Sale.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY	Nord	J. ROSENSBURGER	S. F.
J. VOLLMAR	S. F.	A. W. THOMPSON	Petaluma
J. D. BLANCHAR	Napa	F. A. KIMBALL	San Diego
C. MITCHELL GRANT		I. G. GARDNER	S. F.

G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street. S. F.

FRUIT RANCH FOR SALE.

Ten miles south-east of San Bernardino. Eighteen acres of vineyard. Ten acres of alfalfa. Several thousand young fruit trees. Abundance of water. Beautiful location and only five miles from the railroad. Terms easy. For particulars, address

WM. CRAIG, San Bernardino, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

California Farmers' Mutual Fire Insurance Association.

No. 6 Leidesdorff St., Rear of Grangers' Bank.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't		I. G. GARDNER	V. Pres't
G. P. KELLOGG, Treasurer		A. W. THOMPSON	Att'y
I. C. STEELE	San Mateo	CHAS. LAIRD	Salinas
A. WOLF	Stockton	A. D. LOGAN	Colusa
W. H. BAXTER	S. F.	G. W. COLBY	Butte Co
J. C. MERRYFIELD	Dixon	C. J. CRESSEY	Oakland
A. B. NALLY	Santa Rosa	E. W. STEELE, S. L. Obispo	

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$3,026,378.00
TOTAL PREMIUMS	63,306.49
LOSSES PAID	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT

H. E. HILLS.....MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of **J. M. DUDLEY,**

Dixon, Solano County, Cal.

(Continued from Page 85.)

taken them, writing down in chronicles like this paper, with gleeful satisfaction, that the destruction is wholesale. The chroniclers referred to, however, have not been fully aware of the power of instinct; few of them have realized the compensatious made by Dame Nature in the prescience which she has bestowed npon "rats and mice and such small deer," respecting calamities of flood and field. The gopher, it seems, is wise in his generation, and employs mechanical and plastic skill in preparation for inundations, by means of which many an old Noah among his tribe finds, if not an ark of safety, at least an Ararat, on which he safely awaits the abatement of the floods. Selecting some little knoll, he excavates a chamber of convenient size close to the surface, then smoothing down the outer surface and compacting its walls by pressure, he makes a refuge from which the water drains away. In other words, he lives in a mnd fort which resists the water, for some hours at least. A farmer, who has been lately engaged in killing the vermin, says he has found such balls enclosing the gophers in quite a number of cases.

SAN BERNARDINO.

BETTER THAN LAST YEAR.—*Argus*, Jan. 21: Yesterday we had a pleasant rain from ten o'clock in the morning until night. It will do an immeuse amount of good, as two-thirds of our grain is sowed and it only needs this rain to insure a good crop, and our future harvest is now made certain. It is true, some of our farmers were not through sowing; we have, however, more sowed than we had last year and a much better prospect.

HONEY PROSPECT.—*Times*, Jan. 22: The apiarists are in great glee over the rains, and the outlook for bee feed is fine. The past year was not a success, and the demand for Southern California honey, which is pronounced the best in the world, will be immense.

COTTON.—A specimen of cotton, of fine quality, has been produced at Riverside, San Bernardino county, and the farmers in that vicinity are confident that it can be raised with profit.

SANTA BARBARA.

TOBACCO.—*Record*, Jan. 22: The experiments in growing tobacco in our valley the past year, by experienced tobacco growers, demonstrated the fact that our climate for curing, and our soil for producing, were admirable; so satisfactory were the results that a number of the colonists are intending to plant quite extensively, and preparatory, have secured seed already from various sections East and South, of the choicest varities. In California, or rather Southern California, the second crop invariably more than pays all expenses of growing and curing both.

SANTA CRUZ.

NOT SOWN YET.—*Sentinel*, Jan. 29: The farmers of Santa Cruz county thus far have sown but little grain. On the low lands the ground has not been in a condition to plow for nearly three months. Under the most favorable circumstances a fortnight or more must elapse before plowing can be commenced in the valleys. On the hills and rolling land, where the drainage is better, considerable grain has been sown, but not nearly so much as in past seasons at the same period.

SAN JOAQUIN.

THE RAIN.—*Independent*, Jan. 27: Farmers from the west side state that the ground in many places is too wet for plowing, that the early sown grain is accompanied in its growth by a heavy crop of weeds, but that fields planted later than the summer fallowed land give promise of good returns. There are, however, strong hopes that the rains will cease in time to plant extensive fields before the season is past.

SISKIYOU.

BEEF CATTLE.—*Union*, Jan. 22: Within the past two weeks a number of beef cattle have been purchased in this county and taken to San Francisco. Last week a San Francisco man named Curry bought one hundred and sixty head, in Shasta valley and drove them to Reading, to ship thence to the San Francisco market. On Wednesday last L. Swan started from Little Shasta with one hundred and one head of as fine beef cattle as any butcher in San Francisco could wish to see. He will drive them to Redding and ship thence by car to the Bay City. We have not learnt what was paid per head. We presume a number of good beef cattle could yet find buyers if there are any for sale. These purchases of cattle shows the advantage farmers keeping up a few beef cattle have over those who do not.

PROSPECTS.—The prospects for lively times in the spring in this section of the State were never better. The miners around Yreka have plenty of water, and claims are being worked now which have not been worked before for ten years. And from all we can learn they give evidence of paying well when the bed rock shall be cleaned up. Most all the work done in the mines now is ground sluicing.

SONOMA.

A BIG BEET.—*Democrat*, Jan. 29: Ever since the discovery of the 1,100 pound beet in one of the southern counties of this State, the gardeners of Sonoma, who never allow anybody to beat them in the size of their vegetables or the profusion of their yield, have set about taking the shine out of that beet by producing something a little beyond it. Among others who are in the field, Mr. Jake Hardesty is growing one which he fondly hopes will, in the course of ten or twelve years, surpass anything yet seen. His beet stands now about three feet out of the ground, and if no cow gets inside and eats the heart out of it, will eventually accomplish all that is hoped for by the enterprising grower.

STANISLAUS.

HOG DISEASE.—*News*, Jan. 28: We learn from Mr. F. H. Miller, living on Dry creek in this county, that to him an unknown disease has attacked his hogs. Already some fifteen or twenty head have died within a few days. They first show the symptoms by coughing and frothing at the mouth, and die in a very short time afterwards. The complaint does not appear to pay any respect to age, size or condition of the animal.

EVERGREEN WHEAT.—Mr. Miller, residing near Salida, informs us that he has in his garden a species of wheat which may be termed perpetual. A few kernels of the grain were furnished him and sown. It matured and bore a healthy crop, and continues sending out new shoots from the parent root. These new shoots continue to present themselves and bear their crops, when immediately another one comes from the same root. The same wheat roots, first presenting themselves two or three years since, are still alive and and have borne several crops. Moisture and warm weather are all that is required to keep it constantly reproducing itself.

TULARE.

SOCIETY.—*Delta*, Jan. 27: The Tulare Valley agricultural society has filed its articles of incorporation in the office of the Secretary of State at Sacramento. Its principal place of business is Visalia. It has no capital. The directors are: Elias Jacob, H. M. White, R. C. Broder, Wm. R. Owen, E. Giddings, J. M. Harter and I. N. Matlick.

NATIVE OAKS.—*Times*, Jan. 29: Nowhere in the State are there such a large number of giant oaks as are seen in this valley. For five miles northward and twenty miles southward from Visalia, and extending across a belt of more than twenty miles in width, these large oaks are thickly distributed, in some places making almost a dense forest, while in other places they are less numerous. All the lands upon which these trees grow are of the very best quality, and where cultivated, alfalfa and grain grow beneath their shade in luxuriance. Thus this portion of the State is furnished with fire wood in abundance.

YOLO.

FARMING CHANGES.—*Mail*, Jan. 27: In some branches of industry in this county we have almost doubled, while in others we have materially decreased. Our dairy products have decreased; our wool products have been doubled as to quantity and doubled in value as to quality; our wine product has not increased, and grape growers have, many of them, dug up their vines, while a few have turned their attention to the cultivation of the raisin grape exclusively. Many acres which six years ago were cultivated in wheat have been changed to green fields of alfalfa; and yet we should not be surprised to hear of Yolo county producing 3,000,000 bushels of wheat the coming season.

THE GOOD PROSPECT.—*Democrat*, Jan. 28: It would certainly seem as though California was booked for good crops this year, if the amount of rain has anything to do in the matter, and generally speaking everything hangs upon the quantity of rain and the manner in which it is distributed throughout the season. So far this season no fault is found on either score. It has come in just the right quantity at the nick of time. Wheat is splendid everywhere—summer fallow, late sown and volunteer—this being one of those remarkably favorable seasons when "everything grows that is put in the ground." We look for a yield of 25 per cent. greater than was ever before produced in Yolo county—say 6,000,000 bushels.

Oregon.

MORE MATERIAL FOR THE CENTENNIAL.—*Oregonian*, Jan. 22: On Monday we were shown a beautiful specimen of timber that is to be placed on exhibition at the Centennial, which the commissioner is having polished and prepared at a furniture manufacturing establishment in this city, to represent our State. The specimen consists of a transverse section of the *Acer Menziesii*, an evergreen, commonly called laurel, and out of a tree about forty-two inches in diameter. The grain is beautifully variegated, and so fine and close that when polished we doubt very much if it will be surpassed for beauty by any timber in the world. Mr. Dufur also received specimen cards of wool from all the different grades grown in this State. These wools are prepared and arranged in the most careful manner, and when placed on exhibition will do honor not only to our State, but to the entire wool growing interest of the nation.

FLAX CULTURE.—A visitor to Mesara. Parrish & Miller's flax factory, situated near Jefferson, and contiguous to the railroad, will witness the successful introduction into Oregon of another branch of useful industry, destined not only to develop the wonderful resources, but to add largely to the material wealth and prosperity of the State. This firm deserves great credit as the first to embark in a new and untried enterprise of useful industry, demanding an outlay of so much capital without the prospect of an immediate return, and of so much energy and perseverance necessary to overcome so many barriers unavoidably encountered in the first introduction of all untried departments of trade and commerce.

THE SEASON.—Probably there has never been a season in the history of Oregon in which the farmers had so little opportunity to get their crops sown for the following year, as this fall and winter. The first rains of the fall were so slight as not to prepare the ground for ploughing, and were followed with a long dry autumn in which no work could be done. Then came the great storm of November, lasting into December, with scarcely a day's respite. Such rains as astonished the oldest inhabitant fell almost constantly. The ground was too wet to work. From dust it became mud; and mud it has been ever since, except when, as at present, the temperature has been too low for mud. Now, with the mercury never so low as twenty-five degrees above zero, we are having it too cold for farm work—a temperature below the freezing point. Under this state of facts, little has been done in the way of sowing for the next summer's harvest. Farmers are, some of them, discouraged. But there is time yet. There is no cause to fear that no opportunity will yet be given for their work. And let those who are experiencing their first winter in Oregon not be disheartened. This, as we remarked, is the first season of thirty or more in which farmers have had so little opportunity to prepare their fields. If it were a total failure it would be only what occurs in other countries one year in thirty.

Annual Meeting of the State Agricultura Society.

The State agricultural society met on Thursday, Jan. 20th, for the purpose of electing three Directors and a President. The meeting was called to order by the President, R. S. Carey. M. D. Boruck, Secretary, read a lengthy report of the Directors. The President then announced the first order of business to be the election of a President. I. F. Hoag arose and placed in nomination the present incumbent, Mr. Cary.

Grove L. Johnson said it had been his desire to place that gentleman in nomination, but as Mr. Hoag had trumped his trick he moved that the Secretary be instructed to cast the vote of the Society.

Mr. Cary was eulogized very highly by several who seconded the nomination. He then said he would serve the Society to the best of his ability for one more term, and no longer.

Nominations For Directors.

The election of Directors then being in order, Grove L. Johnson placed in nomination M. D. Boruck, saying that he was a gentleman who had always been true to the interests of the society and true to the interests of the State.

Mrs. Knox, delegate from the Santa Clara agricultural society, placed in nomination Jesse D. Carr, of Salinas.

Dr. Montgomery nominated Frederick Cox, of Sacramento.

T. J. Clunie nominated Marion Biggs, Sr., of Butte county.

Explosion of a Bombshell.

While the method of voting was being discussed, Edward Curtis rose and withdrew the name of Mr. Carr, and then proceeded to deliver an address which was calculated to astonish instead of edifying those in attendance. He thought that "a little friendly rivalry in this matter would do no harm. The valley of the Salinas is one of the richest agricultural sections in the whole State, and it is only fair that Salinas had a right to some representation in the Board of Directors of the State agricultural society." He grew somewhat excited and lectured the people of Sacramento and all connected with the Society;—he said the society was but a machine, a sort of mutual admiration society. The Board of Directors went on the principle, "You tickle me and I'll tickle you." He continued in this strain some time, several gentlemen attempting to interrupt him. He hurled innuendoes on the President and Directors, and Grove Johnson, Clunie, J. J. Green, Marion Biggs and others jumped to their feet, and for a short time there was a fair prospect for tumult and carnage.

Mr. Curtis' Remarks Refuted.

Mr. Johnson thought if anything was wanted to defeat Mr. Carr, such a speech as this would do it admirably. Mr. Carr might well exclaim, "God save me from my friends!"

Mr. Haymond said he came there to vote for Mr. Carr, for the reason that that gentleman represented the southern portion of the State.

Mr. Cox requested that his name be withdrawn and that of Mr. Carr substituted.

Mr. Johnson said Mr. Curtis had asserted the existence of a ring. There was no man in the State more anxious to hit a ring wherever he found it than he (Johnson) was. The individual members of the society had signed notes for $16,000 for the use of the society, and he thought they had a right to be chosen on the Board and have a say in the society until that debt was paid off. He thought that the same horse that had pulled the wagon thus far through the stream should be kept in the traces. In the language of the immortal Lincoln. "It isn't safe to swap horses while crossing the stream."

Mr. Briggs Becomes Profane.

Mr. Briggs said there was no ring, and never had been, and no such rule adopted as "you tickle me and I'll tickle you." Such assertions were false as h—ll. He was opposed to any compromise after such an insulting speech.

General Evans said the San Joaquin delegation came there to vote for Carr in a body. That he never heard rumors of any ring, and he thought such language wrong and false, and would not be approved by Mr. Carr himself.

Mr. Clunie arose and branded the allegation as a lie. He said the society had the benefit of the names of these Directors on a promissory note, and he was opposed to any change.

A Liar.

Mr. Carey then arose and said: "This is not a place for red tape. Every man has the right to speak. Mr. Curtis can speak as long as he likes, and can talk of a ring, and insult the President, but I will hold him responsible for every word he says. His assertions about a ring, and you tickle me, etc., is a lie, and the man who utters such statements is a liar, and the truth is not within him."

Mr. Green arose and denounced the speech of Curtis, but said he knew Carr to be a good man, and as he would shortly leave the city, he tendered his resignation, so as to allow the four gentlemen named to be elected.

Mr. Carr then came in and said he was sorry anything had been said. He certainly had nothing to say against any member of the Board, and refused his name to be voted upon.

The resignation of Mr. Green was not accepted.

Mr. Curtis is Sorry.

Curtis then got the floor after having been requested to show his ticket by Mr. Boruck. He said: "Let the galled jades wince. If I have gone too far I am sorry, but things look suspicious when tickets are circulated with their names printed on them. However, I have no apology to make," and Mr. Curtis left the room.

On motion of J. E. Divine, the President cast the ballot for Directors, and Messrs. Boruck, Biggs and Cox were declared elected.

Mr. Carey made a detailed statement, and submitted a financial itemized report of the society's affairs, which was referred to a committee for examination.

The society is in debt $16,000. Four years ago the society was in debt $600, but the State having refused to make a donation for premiums, the society has gone right along and made the premium list just as large.

After transacting some further business, the society adjourned.—*S. F. Chronicle.*

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington D. C., Feb. 1st, 1876.

FOR WEEK ENDING JANUARY 18TH, 1876.*

ORE FURNACE.—Horatio G. Livermore, S. F., Cal.

WATER HEATING ATTACHMENT FOR STOVES AND RANGES.—James H. Mitchell, S. F., Cal.

COLOR PRINTING BLOCKS.—Joseph Perkins, S. F., Cal.

MACHINE FOR TREATING RAWHIDES.—Herman Royer, S. F., Cal.

COUPLING FOR TRAIN TELEGRAPHS.—Andrew Ryder, Oakland, Cal.

FRUIT DRIERS.—George A. Deitz, Chico, Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

No man or woman is safe while the least remnant of cough or cold, or any symptoms of pulmonary disease, lingers in the system. Expel the cause of danger with HALE'S HONEY OF HOREHOUND AND TAR.

Pike's Toothache Drops cure in one minute.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

The Scandinavian and German Immigration and Employment Office,

610 Merchant Street, near City Hall, S. F.

Since July, 1875, consolidated with the old California Labor Exchange, established in 1868. Located in the business center of San Francisco, with agents in the East and the mother countries of Europe, and mastering all the principal European languages, we have unsurpassed facilities for complying with any demand on us for male and female help in any capacity and of any nationality, at reasonable terms. A lady attends to the female department. Scandinavian, German, French and American help our specialty. We can furnish farmers with any number of Scandinavian and German help, if timely notice is given. Hotels and private families supplied with French and German waiters. When female help is wanted in the country, the remittance of the passage money in advance is indispensable. Your orders will be filled promptly and conscientiously if addressed to

V. de BRETTEVILLE & CO.,
[P. O. Box 1436.] San Francisco, Cal.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers,
No. 224 Sansome street, SAN FRANCISCO.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,

No. 166 TEHAMA STREET,

Cor. Third, bet. Howard and Folsom, San Francisco.
eowbp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, February 2, 1876.

During the last week skies have been bright and there has been a brisker stirring around in the market places. There have been, however, but few changes in current rates, except in such articles as naturally become scarcer as the season advances.

During the week there has been further weakness in the Liverpool Wheat market, but here holders are still firm and prices are unchanged.

The course of the Liverpool quotation to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices.

	Average.	Club.
Thursday	10s 1d@10s 4d	10s 6d@11s 1d
Friday	10s —@10s 3d	10s 6d@10s 11d
Saturday	10s —@10s 3d	10s 6d@11s —
Monday	10s —@10s 3d	10s 6d@11s —
Tuesday	10s —@10s 3d	10s 6d@10s 10d
Wednesday	10s —@10s 3d	10s 6d@10s 10d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	13s 5d@13s 9d	13s 9d@14s —
1875	9s 3d@ 9s 7d	9s 8d@10s —
1876	10s —@10s 3d	10s 5d@10s 10d

The record for the month of January is now closed. The result has been a slow trade in Wheat throughout and a light movement. Fourteen vessels in all have cleared with Wheat, carrying 448,200 centals.

The telegraphed review of the London *Mark Lane Express* for the week ending January 31st, is as follows:

"Damp weather during the past week has brought the price of native Wheat down nearly a shilling more. The overflowing granaries make millers temporarily masters of the situation. The Paris market has maintained its prices for both Wheat and Flour. In Belgium, Holland and Germany the markets are very dull. Our own weekly sales have been 16,349 quarters less than the same time last year, while the price is a shilling higher. There is an increasing confirmation of our deficiency, though we may still have a dragging trade till March."

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the week before:

Receipts of Domestic Produce.

Articles.	Week Ending January 26.	Week Ending February 2.
Flour, quarter sacks.	10,024	53,501
Wheat, centals	73,998	105,672
Barley, centals	7,948	7,416
Beans, sacks	264	1,012
Corn	2,690	
Oats	12,454	7,875
Potatoes, sacks	6,677	10,133
Onions, sacks	770	706
Wool, bales	168	62
Hops, bales		45
Hay, bales	994	6,858

Bags—There is little doing in Bags and quotations are unchanged. We are informed, however, that Bags are firmly held at a point higher than quotations, offers of 11¼c having been refused for standard Wheat. There is reported a sale of 60 bls of 45 in. Burlaps at 9c.

Barley—Barley is unchanged. We note sales as follows: 1,700 ctls choice Bay Brewing, at $1.35 per ctl; 4,000 do Coast Feed, $1.20@1.26; 600 sks choice Coast Feed, $1.26; 1,500 sks choice Bay Brewing, $1.35; 1,500 sks choice Bay Brewing, to arrive, $1.35; 1,600 do good Coast Feed, $1.25; 300 sks choice Bay Feed, $1.27½; 760 do Bay Brewing, $1.30; 5,000 sks choice Coast Feed, $1.27½; 200 do do, $1.25; 600 sks good Coast Feed, $1.26; 4,000 do do, for the interior, $1.25; 1,200 ctls Coast Feed, $1.22½ per ctl.

Beans—Beans are unchanged.

Corn—We note sales as follows: 350 sks large Yellow, at $1.30; 150 do do, $1.36; 160 sks large Southern, $1.22½. Prices are generally unchanged from last week.

Dairy Produce—Butter is in abundant supply and selling at last week's prices. Fresh Eggs have declined. Cheese is unchanged.

Feed—Feed is unchanged. We note Hay sales as follows: 30 tons Stock, $12.75, 48 do good Cow, $14.50; 38 do good Wild Oat and Wheat, $17; 42 do choice Wheat, $18; 25 tons Barley and Alfalfa, $14.50; 42 tons good Volunteer, in two lots, $15; 44 tons Stock, 12.50; 42 do fair Wheat and Oat, $14.50; 36 do good Oat, $15; 37 do fair Wheat, $15. The best Wheat is quoted at $18@19 per ton.

Fish—The supply of salmon effects a reduction in quotations.

Fresh Meat—The Provision market is firm and moderately active. Fresh Beef and Muttou are lower and in better supply. Pork is in light supply, and the demand is light for fresh Pork.

Smoked Meats—There is a little variation in our prices for Hams from last week.

Fruits—Fruits are selling at former rates.

Hops—Hops are very dull. Mr. A. T. Elliot, an expert in Hops, has contributed to the press the following, which will be read with interest by all engaged in the trade:

"It is a question of serious import whore to find an outlet for the large stock on hand, which is estimated at 3,500 bales, unless buyers can be found to take the chances of shipment to England, with the hope of a fair return, and the prospective advantages of creating there a profitable market in the future. The following resume of the trade may be interesting, and my experience in handling the article for many years, here and in England, may justify the suggestions I now make to growers: The crop of 1875 has been large and the quality good, but I am not able to give a correspondiugly agreeable report as to the prices realized. Some local dealers made contracts ahead at 25@30c, which, as things have since proved, were largely to the benefit of such growers as were parties thereto, prices since the gathering of the crop having ranged from 11 to 17c. Apart from the immediate pecuniary results, there have been satisfactory points connected with this branch of Pacific coast products. First, there has been a continued proof that the diseases which affect the plant in other countries heve no hold here, and that the yield in successive seasons may be calculated to a certainty. Second, their reputation for superior quality is spreading, not only in the Eastern States and Australia, but in England; facts, the importance of which it is difficult to estimete. Third, when other countries produce either entire failures or poor qualities, a market can be found at highly remunerative rates, a contingency which is in fact no contingency at all, as such a state of things occurs every few seasons. The hints to growers are as follows: Do not be tempted to plant too many acres. Why? The season for securing the crop is short, and no substitute can be found for manual labor in picking and curing, resulting often in trouble to get enough hands just when wanted. As in the course of harvesting the process of maturing goes on rapidly, grade as far as possible the different ripenesses by numbering the bales. Buyers often reject lots when they find brown or overdried Hops mixed in the pile. Keep out green leaves and stems. Growths from the Sacramento district are often noticeable for the presence of the former, and the latter are found abundantly in Hops from Oregon and Washington Territory. They weigh nothing, and militate much against the salo of the article. Do not mix Hops from young plants with those from more mature roots, and never bale until the crop has remained in a loose heap for say ten days after drying."

Emmett Wells, of New York, in his circular of January 21st, says:

"California Hops are in better demaud, but there are none here; fancy growths, such as the "Willow Grove," would bring an extra price if here to-day. Very few California or Oregon Hops will find their way to this market this season, as we see by the San Francisco papers that the surplus stock in that market is being shipped to Australia and New Zealand."

Oats—We note sales as follows: 100 sks ordinary Coast, $2.05; 360 do good do, $2.15; 300 do choice heavy do, $2.30; 360 sks Feed, $2.15; 110 sks good Feed, $2.17½.

Onions—Sales of Onions are as follows: 200 sks choice Union City, in lots, at $1.37½; 160 sks choice Union City, $1.37½ per ctl; 85 do fair, $1.15 per ctl.

Potatoes—Potatoes are not materially changed. We note sales: 200 sks good Bodega at $1.50; 300 sks good Petaluma, $1.50; 200 sks choice Tomales, $1.55; 200 do good do, $1.60; 800 sks good Humboldt, in lots, $1.50; 500 do good Petaluma, $1.60 per ctl. The supply is large and more are on the way.

Poultry and Game—Former rates prevail.

Wheat—Wheat has sold at last week's prices on an average. The following sales have been made; 3,000 sks choice Milling, $1.96; 6,000 do choice Shipping, $1.90; 1,000 do good do, $1.87½. Sale of 6,000 sks choice Shipping, in two lots, $1.90; 420 do good do, $1.87½; 1,020 do fair Milling, $1.85; 6,000 ctls Shipping to arrive, at $1.90 per ctl; 1,000 do Superfine, $1.87½; Milling, $1.90@1.96; 6,500 sks Shipping, $1.90; 2,200 sks good Milling, $1.92½; 3,000 sks choice do, $1.95 per ctl.

Wool—Wool is unchanged. The New York market, telegraphed January 31st, is as follows:

"The better qualities, with perhaps an occasional exception, have found purchasers. Sales are: 65,000 lbs low spring California at 23½@24c; 58,000 lbs fall do, 17½@26c; 11,000 lbs scoured do, 56@59c; 7,600 lbs do pulled, 32c; 45,000 lbs Oregon at about 30c. In Boston the demand for California Wool has been good, and this description meets with more favor from manufacturers than any other kind. The sales of the week include 411,000 lbs, 151,000 being choice fall, at 24½@26c, and some lots of choice spring at 32@34c. Pulled Wool continues to arrive quite freely and meets with fair demand; some lots choice Eastern and Main Supers sold at 52@55c, but the principal sales of Super XX have been at 40@45c; good Supers and X are most inquired for, and low grades remain neglected."

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., February 2, 1876.

FRUIT MARKET.

Oranges Mex. ₰ M.....15 00@35 00
Tahiti, do .....— —@— —
Cal. do.....15 00@40 00
Limes, Mexican, ₰ M.....7 50@10 00
Malaga Lemons, ₰ bx.....12 00@14 00
Cal. ₰ 100.....1 50@ 3 00
do Sicily ₰ b'x.12 00@14 00
Bananas, ₰ bnch 2 50@ 4 00
Cocoanuts, ₰ 100. 7 00 @ 9 00
Pineapples, ₰ doz. 7 00 @8 00
Apples, ₰ box...1 00 @1 25
do Choice... ..2 00 @ —
Blackberries .... — @ —
Figs..... — @ —
Huckleberries... — @ —
Strawber's ₰ ch.. — @20 00
Pomgranates..... — @ —
Raspberries..... — @ —
Currants, ₰ ch.. — @ —
Quinces ₰ bx... — @ —
Cranberries ₰ bbl.13 00@14 00

DRIED FRUIT.

Apples, ₰ ℔..... 7½@ 9
Pears, ₰ ℔ ..... 8 @13
Peaches, ₰ ℔..... 12 @13
Apricots, ₰ ℔..... 14 @15
Plums, ₰ ℔..... 7 @ 8
Pitted, do ₰ ℔ .. 18 @20
Raisins, imported. 3 25 @3 75
Cal. Raisios..... 8 @ 12½
Black Figs, ₰ ℔.... 5 @10
White, do ..... 8 @10
Prunes..... 12½ @17
Citron..... 28 @ 30
Zante Currants. 9 @ 10

VEGETABLES.

Asparagus..... —@—
Beets..... —@—
Cabbage, ₰ 100 ℔s. 75 @1 00
Carrots, per ton...10 00@ 2 00
Cauliflower, doz.... 50@75
Celery, doz..... 50 @75
Garlic, ₰ ℔..... — @ 6
Green Peas..... —@10
Green Corn ₰ doz..— @—
Sum'rSquash ₰ box. — @—
Marro'fat Sq'sh, tn — @15 00
Artichokes, ₰ doz.. — @—
String Beans, ₰ ℔. — @ —
Lima Beans..... — @—
Parsnips ..... — @—
Shell Beans..... 2 @ 3
Peppers, green, bx. 75 @1 0
Okra..... 4 @ 5
Cucumbers, ₰ box 1 25@1 75
Tomatoes, box....1 00@ 1 5
Egg Plant, bx..... — @ —
Rhubarb..... @—
Lettuce..... —@ —
Turnips, pr ton..... —@ —
Mushrooms, ℔.. 8 @ 10

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₰ M.....$18 00
Rough refuse, ₰ M..... 14 00
Rough clear, ₰ M..... 30 00
Rough clear refuse, M.. 20 00
Rustic, ₰ M..... 32 50
Rustic, refuse, ₰ M..... 24 00
Surfaced, ₰ M..... 30 00
Surfaced refuse, ₰ M... 20 00
Flooring, ₰ M..... 28 00
Flooring, refuse, ₰ M.. 20 00
Beaded flooring, ₰ M... 30 00
Beaded floor, refuse, M. 25 00
Half-inch Siding, M.... 22 50
Half-inch siding, ref, M. 16 00
Half-inch, Surfaced, M. 25 00
Half-inch Surf. ref., M. 18 00
Half inch Battens, M... 22 50
Pickets, rough, ₰ M.... 13 00
Pickets, roogh, p'ntd.... 16 00
Piokets, fancy, p'ntd.... 25 00
Shingles, ₰ M..... 3 00

PUGET SOUND PINE —Retail Price.

Rough, ₰ M..... 22 50
Fencing, ₰ M..... 22 50
Flooring and Step, ₰ M 32 50
Flooring, narrow, ₰ M.. 35 00
Flooring, 2d quality, M..25 00
Laths, ₰ M..... 3 50
Furring, ₰ lineal ft.... — —

REDWOOD—Retail.

Rough, ₰ M..... 22 50
Rough refuse, ₰ M.... 18 00
Rough Pickets, ₰ M.... 18 00
Rough Pickets, p'd, M.. 20 00
Fancy Pickets, ₰ M..... 30 00
Siding, ₰ M..... 25 00
Surfaced and Long Beaded..... 37 50
Flooring..... 35 00
Do do refuse, ₰ M..... 25 00
Half-inch surfaced, M.. 32 50
Rustio, No. 1, ₰ M..... 40 00
Battens, ₰ lineal foot... ½
Shingles, ₰ M..... 3 2

RETAIL GROCERIES, ETC.

WEDNESDAY M., February 2, 1876.

Butter, Cal. ch'ice 35 @ 45
Cheese, ℔..... 18 @ 20
" Eastern..... 25 @ 30
Lard, Cal., ℔..... — @ 18
" Eastern..... 20 @ 25
Flour, ex. fam. bl 6 25 @6 50
Corn Meal, ℔..... 2½@ 3
Sugar, wh. crsh'd 12½@ 13¼
do lt. brown, ℔ 8 @ 9½
Coffee, green, ℔.. 23 @ 35
Tea, fine blk, 50, 65, 75 @1 00
Tea, finst Jap, 55, 75, 90 @1 00
Candles, Admant'e 15 @ 25
Soap, Cal., ℔.... 7 @ 10
Rice, ℔..... 8 @ 12½
Yeast Powders, doz. 1 50 @2 00
Bowen Bro. large can per doz....5 00 @— —
Small, do..... 2 50 @ —
Bowen's Cream Tartar ℔..... — @ 75
Can'dOysters, dz. 2 00 @3 50
Syrup, S F. Gol'n. 75 @1 00
Dried Apples.... 10 @ 12½
Dr'd Ger. Prunes 12½ @ 14
Dr'd Figs, Cal... 9 @ 10
Dr'd Peaches.... 11 @ 15
Oils, Kerosene .. 30 @ 40
Wines, Old Port. 3 50 @5 00
do Fr. Claret..1 00 @2 50
do Cal., dz. bot. 3 00 @4 50
Whisky, O.B, gal. 3 50 @5 00
Fr. Brandy.....4 00 @8 00

GENERAL MERCHANDISE.

WHOLESALE.

WEDNESDAY M., February 2, 1876.

BAGS.

Eng. Stand Wht.. 10½@11
Nevills & Co's.. Hand Sewed.... 10½@11
24x36..... 11 @11½
24x40..... 12 @12½
Machine do 24x40.. 12 @12½
" " 23x40. 11¼@11½
" " 22x40. 11 @11¼
" " 22x36. 9½ @10
Flour Sacks ½s... 9½@11
" " ¼s..... 6¼@ 7
" " ⅛s..... 4½@ 5
Hessien 60-in..... 12¼@14½
do 45-in..... 8½@ 9
do 40-in..... 7½@ 8
Wool Sacks, 3½ lbs. 45 @50
do 4 "..... 50 @52½
Stand. Gunnies... — @16
singie seam no.. — @—
Bean Bags..... 7½@ 8
Barley Bags 24x36. 11¾@12
do 23x40. 11½@12
do 24x40. 12 @12½
Oat Bags, 24x40.... 12 @12½
do 23x36.. — @13½
Detrick's "E. W.".. 9½ @10
do "E..... — @9½

CANNED GOODS.

Asst'd Pie Fruits in 2½ ℔ cans. 2 75 @ 3 00
do Table do...3 75 @ 4 25
Jams & Jellies 4 25 @ —
Pickles ½ gl.. — @ 3 50
Sardines, qr boxi 65 @ 1 90
do hf boxes. 3 00 @— —

COAL—Jobbing.

Australian, ₰ ton — @ 9 00
Coos Bay..... 8 00 @10 00
Beilingham Bay.— — @ 8 50
Seattle..... 9 25 @10 50
Cumberl'd..... — 16 @— 18
Mt. Diablo..... 6 25 @8 25
Lehigh..... —— @22 00
Liverpool..... 10 00 @11 00
West Hartley... — — @14 00
Scotch..... 9 00 @11 00
Scranton..... 13 00 @16 00
Vancouver's Isl. 10 50 @13 00
Charcoal, ₰ sk... 75 @ —
Coke, ₰ bbl..... — @ 60

COFFEE.

Sandwich Island — @ 21½
Costa Rica per ℔ 22½@ —
Guatemala..... — @ 22½
Java..... — @ 30
Manilla..... — @ 21½
Ground in cs.... 25 @ —
Chicory..... 27 @ —

FISH.

Sec. Dry Cod, new 4 @ 4½
cases..... 6 @ 6½
do boneless.... 8½@ 10
Eastern Cod.... 7½@ 8
Salmon in bbls..8 50 @9 00
do ½ bbls 4 50 @5 00
do 2 ℔ cans..2 25 @2 30
do 1 ℔ cans..1 25 @1 30
do Col. R. ½ ℔s. 5 00 @5 50
Pick. Cod, bbls. 22 00 @ —
do ½ bbls 11 00 @ —
Mack'l, No. 1, ½ bls 9 00 @11 00
" Extra.... — @12 00
" in kits....1 90 @2 00
" Ex mess..3 00 @3 50
" Ex mess. ½ bs—@12 00
Pio'd Herr'g, bx.. 3 00 @ 3 50
Bos. Sm'k'd Her'g 40 @ 50

HARDWARE.

Amoskeag handled Axes $16@17; do unhandled do $13@14—less 50c in 5 case lots.
Amoskeag Hatchets, Shingling, No 1, $7.25; No. 2, $8; No. 3, $8.25. Do do, Claw, No. 1, $7.75; No. 2, 8.50; No. 3, $9.25—less 10 per cent.
Locks, Yale Lock Mf'g Co., discount 33⅓ per cent. from list.
Planes, Onio Tool Co., discount 30 per cent. from list.
Am. Tack Co's Cut Tacks 72½ per cent. discount end 5 per cent. extra. Finishing and Clout Nails, 50 per cent. off list; 3d fine Nails $7.00 per keg. Ohio Butt Co's Loose Joint Butts 50 per cent. do Fast, 35 per cent off list.
Machine Bolts, 20@35 off.
Square Nuts, 2@3c off list.
Hexagon Nuts 2@3c off list.
Wrought Iron Washers, 2@3c off list.
Lag Screws, 15 per cent off list.

LIME, ETC.

Lime, S'ta Cruz, ₰ bbl..... 2 00@ 2 25
Cement, Rosendale, do..... 2 75@ 3 50
do Portland do 4 75@ 5 50
Plaster, Golden Gate Mills.... 3 00@ 3 25
Land Plaster, ₰ ton.....10 00@12 50

MISCELLANEOUS.

Pulu..... 7 @ 9

NAILS.

Assortod size. ℔. 3 75 @4 00

OILS.

Pacific Glne Co Neat F't No. 1.1 00 @ 90
Pnre..... — @ —
Castor Oil, No. 1.. — @1 25
Baker's A A..... — @1 00
Cocoennt.. 55 @ 60
Olive Plegniol..5 50 @5 75
do Possel.....4 75 @5 00
Palm ℔..... 9 @ —
Linseed, rew.... 80 @ —
do bolled..... — @ 75
Cbine nnt in os.. 70 @ 75
Sperm, crude.... — @1 40
do bleached..1 90 @2 25
Coast Whales... 47½@ 50
Polar, refined.... — @ —
Lerd..... — @ —
Oleoobine ..... — @ 28
Devoe's Bril't.... — @ —
Long Island..... — @ 25
Eureka..... 26 @ 27
Devoe's Petro'm 25 @ 27½
Barrel kerosene 23 @ 25
Olive..... — @3 50
Downer Kerose'e 40 @ —
Elaine..... 40 @ —
Gas Light Oil.... 23 @ 25

PAINTS.

Pure White Lead 9¾ @10¼
Whiting..... — @ 2
Putty..... 4 @ 5¼
Obalk..... — @ 2½
Paris White..... 2¾@ —
Oohre..... 3 @ 5
Venetian Red... 3½@ 5
Rod Lead..... 10 @ 11
Litharge..... 10 @ 11
Eng. Vermillion —@1 25
Averill Chemical Paint, per gal. White & tints. 2 00 @2 40
Green, Blue & Ch Yellow..3 00 @3 50
Light Red....3 00 @3 50
Metallic Roof. 1 30 @1 60

RICE.

China No. 1.....6 00 @6 25
Hawaiian, ₰ ℔..... — @ 8
Caroline, ₰ ℔..... 10 @

SALT.

Cal. Bay, per ton 10 00@14 00
do Common.. 5 00@ 7 00
Carmen Island..12 00@15 00
Liverpool fine...22 50@25 00

SOAP.

Castile ₰ ℔.... .. 10 @ 11¼
Common brands.. 1½@ 6
Fancy do .. 7 @ 10

CANDLES.

Grant's..... 16½@ 17
Mitchell's..... 20 @ 22

SPICES.

Cloves ₰ ℔..... 45 @ 47½
Cassia..... 23½@ 26½
Citron..... 28 @ 30
Nutmeg..... 95 @ 97½
Whole Pepper... 14½@ 1½
Pimento..... 16 @ 17
Gr'nd Allsp'rd z — @1 12½
do Cassia do .. — @1 50
do Cloves do.. — @1 50
do Mustard do — @1 20
do Ginger do.. — @1 00
do Pepper do.. — @1 00
do Mace do.... — @2 00
Bowen's Pure Ground ₰ ℔ — @ 50

SUGARS, ETC.

Cal. Cube per ℔.. — @ 12¾
Circle A crusned — @ 12½
Powdered..... — @ 12¾
Fine crushed... — @ 12¾
Granulated..... — @ 11½
Golden C..... — @ 11
Hawaiian..... 10 @ 11
Cal. Syrup in kgs — @ 70
Hawaiian Molasses..... 25 @ 27½

TEA.

Oolong, Canton, ℔ 19 @ 25
do Amoy... 28 @ 50
do Formosa 40 @ 80
Imperial, Canton 25 @ 40
do Pingsuey 45 @ 80
do Moyune.. 60 @1 00
Gunpo'der, Cant. 75 @1 00
do Pingsuey 50 @ 90
do Moyune. 65 @1 25
Yung Hy, Canton 28 @ 40
do Pingsuey 40 @ 70
do Moyune.. 65 @ 85
Japan, ½ chests, bulk..... 30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs 45 @ 67
Japan do, 3 ℔ bxs 45 @ 90
do pl'n bx, 4½ ℔ 35 @ 65
do ½ & 1 ℔ paper 30 @ 55

TOBACCO—Jobbing.

Bright Navys.... 50 @ 65
Dark do .... 50 @ 55
Paces Tin Foil.. — @ 75
Gregory..... 70 @ —
Dw't Twist.... 65 @ 75
Light Pressed... 70 @ 80
Hard do .. 50 @ 60
Conn. Wrap'r.... 40 @ 60
Penn. Wrapper.. 20 @ 45
Ohio do 15 @ 20
Virgi'a Smok'g.. 45 @1 00
Fine ct ohe'g, gr..8 50 @9 50
Fine out chewing, buc'ts. ₰ ℔..75 @
Banner fine cut.. — @9 00
Cal Smoking.... 37 @1 00

TURPENTINE.

Eastern..... 51½@55

LEATHER.

[WHOLESALE.]

WEDNESDAY M., February 2, 1876.

City Tanned Leather, ₰ ℔..... 22@28
Santa Cruz Leather, ₰ ℔..... 22@28
Country Leather, ₰ ℔..... 22@29
Stookton Leather, ₰ ℔..... 25@29
Jodot, 8 Kil., per doz..... $50 00@ 54 00
Jodot, 11 to 13 Kil., per doz..... 68 00@ 79 00
Jodot 14 to 19 Kil., per doz..... 82 00@94 00
Jodot, second choice, 11 to 16 Kil. ₰ doz..... 57 00@ 74 00
Cornellian, 12 to 16 Ko..... 57 00@ 67 00
Cornellian Femates, 12 to 13..... 63 00@ 67 00
Cornellian Females, 14 to 16 Kil..... 71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil..... 58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil..... 66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil..... 72 00@ 74 00
Simon, 18 Kil., ₰ doz..... 61 00@ 63 00
Simon, 20 Kil. ₰ doz..... 65 00@ 67 00
Simon. 24 Kil. ₰ doz..... 72 00@ 74 00
Robert Calf, 7 and 9 Kil..... 35 00@ 40 00
Frenoh Kips, ₰ ℔..... 1 00@ 1 35
California Kip, ₰ doz..... 40 00@ 60 00
Frenoh Sheep, all colors, ₰ doz..... 8 00@ 15 00
Eastern Calf for Backs, ₰ ℔..... 1 00@ 1 25
Sheep Roans for Topping, all colors, ₰ doz.... 9 00@ 13 00
Sheep Roaos for Linings, ₰ doz..... 5 50@ 10 50
California Russett Sheep Linings..... 1 75@ 4 50
Best Jodot Calf Boot Legs, ₰ pair..... 5 00@ 5 25
Good French Calf Boot Legs, ₰ pair..... 4 00@ 4 75
Frenoh Calf Boot Legs, ₰ pair..... 4 00@ —
Harness Leatber, ₰ ℔..... 24@ 32½
Fair Bridle Leather, ₰ doz..... 48 00@ 72 —
Skirting Leatber, ₰ ℔..... 33@ 37½
Welt Leather, ₰ doz..... 30 00@ 50 00
Bnff Leather, ₰ foot..... 17@ ½
Wax Side Leather, ₰ foot..... 17@

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by CHARLES SUTRO & CO.]

SAN FRANCISCO, February 2, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 88½ to 89.

GOLD in N. Y. 113.

GOLD BARS, 880@890. SILVER BARS, 7½ and 8 per cent. discount.

EXCHANGE on N. Y., 60-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexioan dollars, three to five per cent. discount.

LONDON — Consols, 93 to 93⅛; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per ℔, 72½c@75c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., February 2, 1876.

BEANS.

Beyo, ₰ ctl..... 2 50@ 3 25
Butter..... 1 75@ 2 00
Pea..... 1 75@ 1 90
Pink..... 1 75@ 1 90
Sm'l wh..... 1 70@ 1 75

BROOM CORN.

Common, ₰ ℔.. 2 @ 3
Choice, do .... 4 @ 5

COTTON.

Cotton, ₰ ℔..... 15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per ℔..... 27½@ 30
Point Reyes..... 30 @ 32½
Firkin..... 27½@ 30
W'st'n Reserve. 15 @ 20
New York..... 25 @ 27½

CHEESE.

Cheese. Cal., new 14 @ 16
do Old..... 14 @ 17
Eastern ..... 16 @ 20

EGGS.

Cal. fresh ₰ doz 35 @ 37½
Ducks'..... — @ 35
Oregon..... 30 @ 35
Eastern..... 30 @ 32½

FEED.

Bran, per ton..... — @22 50
Corn Meal..... 29 00 @30 00
Hay..... 15 00 @19 00
Middlings..... 32 50 @— —
Oil cake meal..... — @37 50
Straw, ₰ bale..— — 65 @ 70

FLOUR.

Extra ₰ bbl.....5 75 @6 12½
Superfine..... 4 75 @5 00

FRESH MEAT

Beef 1st quality ℔. 7 @ 8
Second do .... 6 @ 7
Third do..... 5½@ 6
Spring Lamb.... — @ 15
Mutton..... 5 @ 6
Pork, undressed 6½@ 6¾
do, dressed.... 8¾@ 9
Veal..... 5 @ 7
Milk Calves..... 8 @ 8½

GRAIN, ETC.

Barley, feed ott 1 20 @ 1 25
do brewing. 1 30 @ 1 35
Chevalier..... 1 30 @ 1 50
Corn, White... 1 05 @ 1 10
do Yellow.... 1 12½@ 1 30
Oats..... 2 00 @ 2 25
Rye..... 1 50 @ 1 55
Wheat shipping 1 85 @ 1 90
do milling.. 1 90 @ 1 95

HIDES.

Hides, dry..... 15 @ 16½
do wet salted 7 @ 7½

HONEY, ETC.

Beeswax, per lb.. 25 @ 27½
Honey in comb.. 18 @ 22½
do Strained.... 6 @ 12½

HOPS.

New crop..... 10 @ 12

NUTS—Jobbing.

Alm'ds h'rd sh'l ℔ 8 @ 10
do, soft sh'l... 16 @ 20
Brazil do..... 14 @ 16
Cal. Walnuts.... 7 @ 11
Chile Walnuts.. 11 @ 12½
Peanuts per lb.. 8 @ 9
Filberts..... 15 @ 16
Pecanuts..... 17 @ 18

ONIONS.

Union City ctl. 1 00 @ 1 37½
Stockton..... 50 @ 1 00

POTATOES.

Petaloma..... 1 40 @ 1 50
Salt Lake..... 1 65 @ 1 70
Sac River..... 1 10 @ 1 30
Humboldt..... 1 25 @ 1 50
Early Rose..... — @ 2 50
Sweet..... — @ 3 00

POULTRY & GAME

Hens, per doz... 7 50 @8 00
Roosters..... 8 00 @9 00
Broilers..... 6 00 @7 00
Ducks, tame, dz 10 00 @11 00
do Mallerd.... 3 00 @4 00
do Canvass.... 4 00 @4 50
Geese, per pair. 2 50 @4 00
Wild Gray dz. 3 00 @4 00
White..... 1 50 @2 00
Turkeys, Live, ℔ 15 @ 16
do Dressed.... 17 @ 18
Quail, per doz.... 1 50 @1 75
Snipe, Eog., doz. 1 50 @2 00
Doves, per dozen 50 @ 75
Rabbits..... ..1 00 @1 25
Hare, per doz...2 00 @3 00

PROVISIONS.

Cal. Bacon, L'ght 15 @ 15½
do Medium ... 14 @ 14½
do Heavy..... 14 @ —
Lard..... 14 @ 17
Cal. Smoked Beef 9 @ 10
Eastern do.... — @ 12½
East'rn Should's — @ 10
Hams, Cal..... 14 @ 14½
do Armour .... 16½@ 17
do Worster's. 17 @ 17½

SEEDS.

Alfalfa, Chile ℔. 8½@ 11½
do Californua. 11 @ 14
Canary..... — @ 20
Clover Red..... — @ 25
do White ..... 50 @ 55
Cotton..... 6 @ 10
Flaxseed..... — @ 3¼
Hemp..... 12½@ —
Italian Rye Grass 25 @ 30
Perennia do.... 20 @ 30
Millet..... 10 @ 12
Mustard, white. 3 @ 3½
do. Brown.... 3 @ 3½
Rape..... 7 @ 9
Ky. Blue Grass.. 33 @ —
do 2d quality.. 29 @ —
do 3d quality.. — @ —
Sweet Vernass.. — @ 75
Orchard do.... 30 @ 35
Red Top do.... — @ 25
Hungerian do 8 @ 12
Lawn do..... 50 @ —
Mesquit do... 15 @ —
Timothy..... 11 @ 13

TALLOW.

Crude..... 6½@ 7½
Refined..... 8¾@ 9

WOOL, ETC.

FALL—
Seedy..... 11 @ 12½
Choice free..... 12 @ 18
Burry..... 9 @ 11
Oregon..... — @ —

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., February 2, 1876.

POULTRY, GAME, ETC.

Chickens..... 75 @1 00
Hens..... 75 @1 00
Eggs, Hens..... 55 @ 60
do Ducks'..... — @ 60
do Farallones.. — @ —
Turkeys, ₰ ℔.. 20 @ 25
Ducks, each.....1 00 @1 25
Geese, wild, pair. 50 @1 00
Tame, ₰ pair..3 00 @4 00
Snipe, ₰ doz....1 25 @1 50
do English.. — @3 00
Quail, per dozen 75 @2 00
Prairie Ch'k s, pr — @ —
Hares, each ... 25 @ 50
Rabbits, each... 15 @ 20
Squirrels do..... — @ 15
Beef, tend, ₰ ℔. 15 @ 18
Corned, ₰ ℔.. 8 @ 10
Smoked, ₰ ℔.. — @ 15
Chesp. ₰ doz.. 50 @ 75
Sirloin do..... 12 @ 15
Round do..... 8 @ 10
Pork, rib, sto.. ₰ ℔ 12 @ 12½
Chops, do, ₰ ℔ 15 @ —
Veal, ₰ ℔..... 10 @ 15
Outlet, do..... 15 @ 25
Mutton-ohops, ₰ ℔ 10 @ 12
Leg Mutton, ₰ ℔ 10 @ 12½
Lamb, ₰ ℔..... 20 @ 25
Antelope..... 15 @ 20
Tongues, beef.. 75 @1 00
do, do, smoked 75 @1 00
Tongues, pig, ₰ ℔ 12½@ —
Bacon, Cal., ₰ ℔ 16 @ 20

FISH, MEATS, ETC

Flounder, ₰ ℔....15 @ 35
Salmon, ₰ ℔....15 @ 25
Smoked..... — @ 8
Rock Cod, ₰ ℔.. 15 @ —
Cod Fish, ₰..... 12 @ 15
Perch, ₰..... 15 @ —
Lake Big. Trout. — @ 20
Smelts, ₰ ℔..... 10 @ 12½
Herring, Sm'kd. 75 @ —
do fresh..... — @ 5
Tomcod, ₰ ℔.... — @ 20
Terrapin, ₰ doz. — @ —
Mackerel, p'k, ea 12½@ —
Fresh, do ₰... — @ —
Sea Bass, ₰ ℔... — @ —
Halibut..... — @ 75
Sturgeon, ₰ ℔.. 5 @ 6
Oysters, ₰ 100.. 75 @ —
Chesp. ₰ doz.. 50 @ 75
Clams ₰ 100..... — @ 50
Mussels do..... — @ 25
Pork, rib, sto.. ₰ ℔ 12 @ 12½
Tarbot..... 65 @ 75
Crabs ₰ doz....1 00 @1 25
do Soft Shell. 40 @ 50
Shrimps ..... 8 @ 10
Sardines..... — @ 15
Anchovies..... — @ 8
Solos ..... — @ 40
Young Trout, bay — @ —
Skate, each..... 15 @ 25
Whitebait, ₰ ℔.. — @ 15
Crawfish ₰ ℔... 8 @ 10
Green Turtle.... — @ —

FRUITS, VEGETABLES.

Apples, pr lb.... 5 @ 8
Pears, per lb..... 5 @ 12½
Apricots, ₰..... — @ —
Peaches, ₰..... — @ 25
Plums..... — @ —
Pine Apples, each 50 @1 00
Lady Apples.... — @ 25
Grapes..... — @ 25
Bananas, ₰ doz.. 75 @1 00
Muskmelons.... — @ —
Watermelons.... — @ —
Blackberries.... — @ —
Cal. Walnuts, ₰.. — @ 25
Cranber'es, Org., — @ —
do Eastern q'ty. — @ 25
Huckleberries.... — @ —
Strawberries, ₰ — @ —
Raspberries. ₰.. — @ —
Gooseberries.... — @ —
Currants..... — @ —
Cherries, ₰ ℔... — @ —
Nectarines..... — @ —
Pomegranates.... 6 @ 10
Oranges, ₰ doz.. 50 @1 00
Lemons..... 75 @ —
Limes, per doz .. 20 @ 25
Figs, dried Cal.. 12½@ 25
Figs, Smyrna, ₰ 25 @ 35
Asparagus, ₰... 50 @ 75
Artichokes, doz. 75 @1 25
do Jerusalem... — @ 8
Beets, ₰ doz.... 20 @ 25
Potatoes, ₰ ℔... 2 @ 3
Potatoes, sweet.. 3 @ 5
Broccoli, each.. 10 @ 15
Cauliflower.. 10 @ 15
Green Peas ₰ ℔. — @ —
Cabbage, per hd.. 10 @ 12½
Oyster Plant, bn — @ 12½
Carrots, ₰ doz... — @ 25
Celery, ₰ dz..... 75 @1 00
Cress, ₰ doz bun 20 @ 25
Onions..... 3 @ 4
Turnips, ₰ doz bunches..... — @ 25
Brussels Sprouts 6

Stock Breeders.

Breeding for Useful Qualities.

At the recent convention of Short Horn breeders in Toronto, Canada, Judge T. C. Jones, of Ohio, one of the foremost Eastern stock breeders and writers, delivered an address in which he upheld breeding for those qualities which are of real value and usefulness rather than fancy points and estimates. This is what the farmer wants in a breed of cattle. He wants a breed that will do the best work with the feed he furnishes, either making the most beef or milk out of it, as the case may be. It is well for the success of the Short Horns that their advocacy can be put upon such grounds; for this is the ground they must stand or fall upon in the farm economy. Judge Jones took as his subject "Short Horn breeding conducted as a science with a view to maintaining the highest excellence in useful qualities." He submitted that the practice of breeders should be governed by a proper understanding of those general principles that had been tested by the deduction of animal physiologists or the experience of practical breeders. While it must be admitted that mere speculative scientists had heretofore accomplished very little in aid of cattle breeding, it was nevertheless true that considerable progress had been made in establishing systematic methods founded upon the careful observation of facts and intelligently conducted experiments. All intelligent efforts for the improvement of domestic animals had been founded upon two principles: (1) The selection of the best animals to breed from; and (2,) proper feeding and care for the development of the highest excellence. Those principles were acted upon in a rude way at the very beginning of the history of races and breeds; and their observance was equally essential in the preservation of the valuable characteristics of the most perfectly developed races of the present day. In the early history of the Short Horn race there was a good deal of in-and-in breeding, a practice that seemed justifiable because of the limited number of cattle of approved excellence to breed from, and because the tendency was, within certain limits, to improve the symmetry, refine the bony and muscular structure, and increase early maturity. The multitude of the race now disseminated throughout the world were, therefore, all descended from a very few animals. The fact that close inter-breeding tends to refine the extremities and to impart elegance and style to the general appearance of the animal would explain why men of taste adhered to the practice, while we of a more practical turn of mind would have detected a diminution in useful qualities. In case of in-bred animals commanding high prices, it could not be expected that the owners would change their style of breeding and involve pecuniary loss, and so long as those linebred animals were in demand at higher prices than others, so long would they be bred. There was now no necessity for resorting to the refining system to give style and beauty of form, for, as observed by Professor Law, the external form has already been brought to all the perfection which art seems capable of communicating; and now those other properties remain to be attended to without which no further refinement in breeding will avail for the purposes of profit to individuals and benefit to the country. Gentlemen in the in-and-in practice seemed to be aware of its influence in impairing useful qualities, as was shown by the fact that they were constantly seeking bulls as remotely connected as possible with their cows. What was at this day the essential matter to be attended to in their practice? Had they not carried refinement far enough, and had not the external form been brought to all the perfection which art seemed capable of communicating? The form of the model Short Horn would seem to admit of very little variety in the way of types, unless they attempted something that was not essential to useful profitable excellence. They should bring up the average to the maximum of excellence and keep it there. He urged that cattle should be judged by a scale of points, which might be subdivided to suit the fancy. He objected to incestuous breeding, especially where it was practiced merely for the purpose of continuing in the line, because it tended to impair constitutional vigor and the growing and feeding properties, although it produced high refinement of form.

Poisonous Potatoes.—The sprouts of the potato when analyzed are found to contain a vegetable alkaloid called by chemists *solanine*, which is very poisonous. Solanine is obtained from various species of solanum agenus of plants comprehending the potato, tomato, nightshade, etc. This alkaloid does not exist in the tubers unless they are exposed to the light and air. If potatoes remain for any length of time after having been dug in too bright a light, or if the earth is accidently removed from them in cultivation, they are changed by the chemical action of light and become green in color, which is owing to the presence of solanine. Potatoes of a blackish-green tint are good for seed, and it is claimed by some that the poison they contain is a sure preventive of decay, but they should never be cooked for the table. If they are boiled in a large quantity of water and the water carefully drained off, they may be fed to stock.—*Ex.*

Nurserymen.

1865. 1875.

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$24	$150
Pear "	20	180	Pear "	28	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	280
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	10	—	Fertillo de Palican	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

ROCK'S NURSERIES,

SAN JOSE, CAL.

The attention of Nurserymen and Planters is invited to my large stock of

FRUIT TREES

Of the very best varieties for Market, Shipping and Drying. Also

GRAPEVINES, CURRANTS, GOOSEBERRIES, BLACK BERRIES AND RASPBERRIES. SHADE TREES, EVERGREENS, BLUE GUMS AND SHRUBS. GREEN HOUSE PLANTS, BEDDING PLANTS, ETC.

Send for a Catalogue.

JOHN ROCK, San Jose.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,

P. O. Box, 722. 516 Battery Street.

PEPPER'S NURSERIES.

(Established In 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

The Aughinbaugh Blackberry

This new blackberry is a California production, of large size, firm, and excellent flavor. It ripens from May until August. The last of the crop of berries sold readily at 40 cents per pound when the "Early Wilson" brought 20 cents at the same time. Plants are now ready for transplanting and for sale at my residence on Central avenue, west of Webster street, Alameda, and Geo. F. Silvester's, 317 Washington St., San Francisco.

PRICES:

For one doz., by mail, postpaid	$3 00
Less than one doz., by mail, postpaid, each	50
For 100, forwarding expenses paid by purchaser	15 00
For 1000, forwarding expenses paid by purchaser	100 00

Send your address and receive circular containing particulars FREE.

G. AUGHINBAUGH.

RIVER BANK NURSERY,

San Jose, Cal.

Established - - - - 1855.

FRUIT AND ORNAMENTAL TREES in great variety. Choice and Rare Variety of EVERGREENS, SHRUBS, ROSES, BEDDING PLANTS, PALMS, MAGNOLIAS, FERNS, TUBEROSES, GLADIOLAS, Etc., with general collection of Greenhouse Plants, Hanging Baskets, Etc.

Nursery and Greenhouses, corner Berryessa road and 12th street, two blocks from terminus of North Side horse railroad. Address

L. F. SANDERSON,

Nurseryman and Floriat, San Jose.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Benrre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Luisante.

Chestnut: Marron de Lyon and Combale.

Walnut: Proparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

FOR SALE—BLUE GUM TREES.

The undersigned has the pleasure of announcing to those contemplating planting largely this season, the nursery stock of the well known Gum Tree Farm, at $15 per thousand, nursery price. The young stock is extensive, ranging in hight from 8 inches to 1½ feet, specially grown for Forest Culture. Address, ISAAC COLLINS, Haywood, Alameda Co., Cal. Nursery situated on Redwood road, 1½ miles from Haywood.

W. R. Strong, Seedsman. Established 1857. 1876. Robt. Williamson, Nurseryman, Established 1865.

W. R. STRONG & CO.

SEEDS. TREES.

San Francisco Office, 418 & 420 Clay Street. Sacramento Office, 8 & 10 J Street.

Nursery Grounds, Sacramento County.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, - - - W. R. Strong & Co.

House in San Francisco, - - Strong & Williamson.

P. S. Alfalfa, Chile grown, 7 to 11c; California, 11 to 15c, as per quantity and grade Guaranteed fresh and genuine.

VICK'S FLOWER AND VEGETABLE GARDEN

Is the most beautiful work of the kind in the world. It contains nearly 150 pages, hundreds of fine illustrations, and four Chromo Plates of Flowers, beautifully drawn and colored from nature. Price 35 cents in paper covers; 65 cents bound in elegant cloth.

Vick's Floral Guide, Quarterly, 25 cents a year.

Address, JAS. VICK, Rochester, N. Y.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

BLUE GUM TREES.

400,000 For Sale. Price from $10 to $45 per 1,000. Also a fine stock of Ornamental Trees, Etc.

Main Depot, 118 East 12th street, Oakland. Branch Depot, Market street, opposite new City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

BAILEY & CO.,

Box 80, Oakland, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

ROSES

700 SUPERB VARIETIES ROSES. Half a Million Greenhouse Plants. Mailing Plants a Specialty. Illustrated Catalogue Free. E. Y. TEAS & CO. Richmond Ind.

1,000 000 Blue Gum Trees

At $10 per 1000 in lots of 10,000, or $15 per 1000 in smaller quantities. Address W. A. T. STRATTON, Pacific Forest Tree Nursery, Petalnma, Cal.

E. S. LEE & CO'S

Illustrated and Descriptive Circular of

WATERS'

Improved Tree Pruner

For 1876,

Will be mailed free to applicants. We offer large discounts to Jobbers and Hardware Dealers. Receives first premium at all fairs where shown.

Price of 4 ft. pole.....$2 50
" 6 ft. pole..... 2.75
" 8 ft. pole..... 3.00
" 10 ft. pole..... 3.25

Manufactured only in Rochester, N. Y.

Our Combined WHOLESALE List of

EVERYTHING FOR THE GARDEN!

(Seeds, Plants, Florists' Requisites, etc.)

For the TRADE ONLY, mailed free on application.

Peter Henderson & Co.

35 Cortlandt Street,

NEW YORK.

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes. They "sow *like a charm*:" *no packing* of seed in the hopper, *no crushing* it, *no pausing* or *waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, *no "skips," no noise, no equal!* The Double Wheel Hoe works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable Combined Machine possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our New Horse Hoe, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. *We must have a Live Agent in Every Town.*

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

Seedsmen.

T. O'CONNOR & CO.,

SEED AND PRODUCE

Commission House,

IMPORTERS OF

Seeds and Semi-Tropical Trees, Plants and Fruits, Etc.

American Sweet Chestnut, 10,000, 3 to 4 feet high.
American Black Walnut, 1,000.
Kilmarnock Willow, 500.
Weeping Ash, 300.
Twenty varieties of Tree Roses from Trained Wigelia Rose. Althea or Rose of Sharon, three colors.
Acacia or Moss Locust. Golden Dwarf Peach, Great Novelty, 1,000. Magnolia Trees, 1,000 from 2 to 3 feet.
Orange Quince, 200.
Rhododendrons.
Six varieties Currants.
Six varieties Raspberry.
Twelve varieties Strawberry.
Downing's Improved Gooseberry.
Forty varieties of Fruit and Ornamental Trees.
All Imported and All Budded Stock.

T. O'CONNOR & CO.,
426 Sansome street, near Clay, S. F.

I have founded my business on the belief that the public are anxious to get their seed directly from the grower, and I therefore offer FREE to every man and woman in the United States who cultivates a farm, tills a vegetable garden, or plants a flower garden, my large Illustrated Catalogue of Vegetable and Flower Seeds for 1876; it contains, in addition to the choicest kinds produced in Europe, one hundred and fifty varieties of vegetable seed grown on my four seed farms, Customers of last season need not write for it. As the original introducer of the Hubbard, Marblehead and Butman Squashes. Phinney's Melon, the Marblehead Cabbages, and a score of other new vegetables, I solicit your patronage. All seed sold under three warrants. A hundred thousand catalogues will be issued and sent out the first of January.

JAS. J. H. GREGORY, Marblehead, Mass.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,
607 Sansome St., San Francisco.

Will be mailed free to all applicants. This is one of the largest and most complete **Catalogues** published: contains about 250 pages, over 600 fine engravings, 2 elegant colored plates, and gives full descriptions, prices, and directions for planting over 1200 varieties of Vegetable and Flower Seeds, Bedding Plants, Roses, &c., and is invaluable to Farmer, Gardener and Florist. Address,

D. M. FERRY & CO.,
Seedsmen and Florists, DETROIT, Mich.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

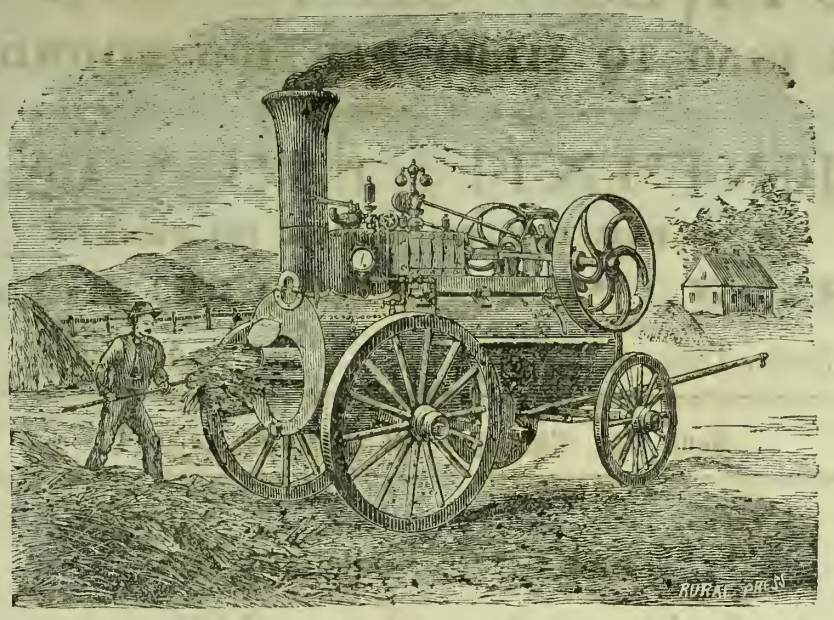
B. F. WELLINGTON,
(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

GOOD SEEDS

Grown with care and painstaking, from selected stocks. ALWAYS PAY. Try mine. See advertisement, "All Abon Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874, re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength and power will surpass anything ever before invented. They are unquestionably the best engine in the world. They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the larges farmers and best threshers in different parts of the State, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been received.

CAUTION.

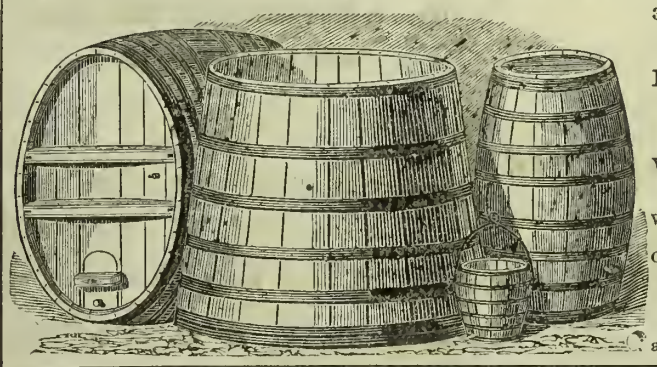
This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co., as my sole agents for the manufacture and sale of my straw burning engines on the Pacific coast, and all orders should be addressed to them.

San Francisco, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials and all other information, to our office, 108 and 110 Front street, San Francisco, and corner Second and J streets, Sacramento.

MARCUS C. HAWLEY & CO.

CALIFORNIA WINE COOPERAGE AND MILL CO



30, 32, 34, 36, 38 & 40 Spear Street,

M. FULDA & SONS
Proprietors.
Manufacturers of

WATER TANKS, SHIP TANKS, MINING WORK,

WINE, BEER AND LIQUOR CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed and Dried Before or After Manufacture at Reasonable Rates.

Sawing, Planing, etc. at Short Notice. eowbp

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

MAILED FREE
FLORAL GUIDE

Contains over **1,200** varieties **Vegetable** and **Flower** Seeds. **COLORED PLATES.** Elegant wood-cuts of vegetables and flowers. **Handsomest Guide Published!** ☞ Send for it.

DETROIT SEED CO., Detroit, Mich.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

ALL ABOUT GARDENING

For Home Use and for Market, in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

THE 100 DAYS TOMATO.

Actually ripens in one hundred days.

Earliest Good Tomato Ever Offered

Free from rot; ships well; remarkably prolific.

$419.50 Sold from One-Fourth Acre.

Positive proof of these claims in Free Circular.

25 cents per packet; 5 for $1.00, post-paid. Address J. A. FOOTE, Seedsman, 512 Main St., Terre Haute, Ind.

CALVERT'S
CARBOLIC
SHEEP WASH,

$2 Per Gallon.

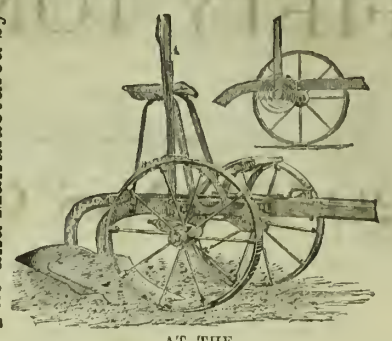
T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

50 Visiting Cards, with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Agricultural Articles.

OAKLAND GANG PLOW

Pat. and Manufactured by HENRY N. DALTON.



—AT THE—

PACHECO
Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or be raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,
Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

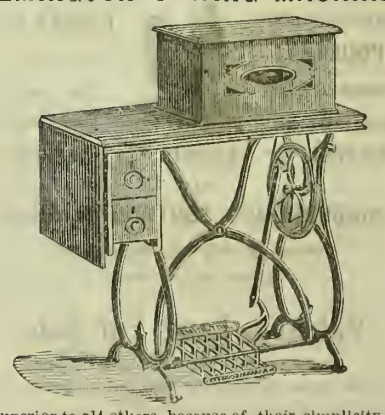
American Chief Gang Plow.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel. S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

Send for Catalogue of Reduced Prices!

FIFTY TONS FRESH CHILE ALFALFA SEED

AT $8.50 TO $11.00 PER 100 POUNDS.

Cheaper than ever before offered. The moet exteneive growere are eowing CHILE ALFALFA in preference to any other. Samplee sent on application. Also

20 TONS GENUINE PERUVIAN GUANO,

AT $60 PER TON, OR $5 PER 100 POUNDS.

R. J. TRUMBULL,

Grower, Importer and Dealer in Seeds, Trees, etc. 419 and 421 Sansome Street, San Francisco.

Send for Catalogue of Reduced Prices!

R. J. TRUMBULL,

Grower, Importer, Wholeeale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unueually Low.

☞Trade Price-List on application.

***My "Guide to the Vegetable and Flower Garden' will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome etreet, S. F.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.
Please enclose stamp.

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

TRAVELING AGENTS WANTED

For this paper. Experienced canvassers can make excellent wages. None but intelligent persons of good recommendation need apply.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur *at any time* please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4jl76.

1776. 1876.

THE CENTENNIAL

Spirit of the Times.

FORTY PAGE EDITION

WILL BE ISSUED

Tuesday, July 4th, 1876.

IT WILL BE THE MOST

Splendid Production

—IN—

NEWSPAPER LITERATURE

That Has Ever Been Published.

IT WILL CONTAIN UPWARDS OF

200

ILLUSTRATIONS,

Every one of interest, not only to Californians but to the general reading public everywhere.

IT WILL ALSO CONTAIN

ORIGINAL ARTICLES,

BY THE

Very Best of Our Writers,

Appertaining to the Pacific Coast and Particularly California.

It will have Extended Circulation and altogether will be a Magnificent Publication and will be printed on

TINTED PAPER

AND STITCHED.

Those deeiring theee papere ehould, as far ae practicable, secure their orders directly with this Office, or with their San Francisco Newe Agente.

Those desiring Advertising Space should make Early Application.

Single Copies - - -	50 cents
To the Trade - - -	30 cents

OFFICE:

Rooms Nos. 18, 22 23, 24 and 25,

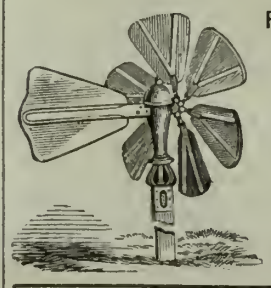
PHOENIX BUILDING,

SOUTHWEST CORNER

SANSOME AND JACKSON STREETS,

SAN FRANCISCO, CAL.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

FARMERS, GET THE BEST!

WHITE EXCELSIOR OATS. Average yield, 80 bushels to the acre. Weighs 40 pounds per bushel. Propagated and for sale only by the undersigned. One-quarter bushel, $2; one-half bushel, $3.50; per bushel, $6.50; two bushels or more, $6 per bushel. Bags free. Send money by P. O. order or registered letter. Samples post-paid for three stamps. Address

WM. M. KENTON,
Lock Box 532. Jackson. Mich.

$250 A MONTH--Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

SEEDS, SEEDS

FOR 1876.

Pure, Fresh and Reliable.

CROSMAN BRO'S will send their beautifully Illustrated Catalogue containing a Magnificent *COLORED PLATE* to any Address FREE. CROSMAN BRO'S,
[*Established* 1840.] Rochester, N. Y.

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS? Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,

SEEDSMAN,

No. 317 Washington Street,
v8-tf SAN FRANCISCO.

THE Twentieth Edition of our celebrated Seed Catalogue and Amateur's Guide to the Flower and Kitchen Garden, containing upwards of 200 pages, including several hundred finely executed engravings of favorite flowers and vegetables, and a beautiful colored chromo, with a Supplement for 1876, will be mailed to all applicants upon receipt of 35 cents. An edition elegantly bound in cloth, $1.

BLISS' ILLUSTRATED GARDENERS' ALMANAC

For 1876, and Abridged Catalogue of Garden and Flower Seeds, contains upwards of 100 pages, and embraces a monthly Calendar of Operations and a price list of all the leading Garden, Field and Flower Seeds, with directions for their culture. A copy will be mailed to all applicants inclosing ten cents. Address

B. K. BLISS & SONS, 34 Barclay St.,
P. O. Box 5712, New York

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

John Saul's Catalogue of New, Rare and Beautiful Plants for Spring of 1876, will be ready in February, with a colored plate. Many beautiful new plants are offered—all at very low rates. Free to all my customers; to others, price 25 cents. A plain copy to all applicants free. Now ready, catalogue of Garden and Flower Seeds, Fruit and Ornamental Trees. Washington City, D. C.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, FEBRUARY 12, 1876. [Number 7

Agriculture at the Capital.

During the week there has not been anything of general agricultural interest agreed upon by the Legislature, but a number of topics have been mentioned and pushed one step forward or backward as future action will declare.

One of the liveliest debates of the week in the Assembly was on the

West Side Irrigation Bill.

Mr. Bagge, of Alameda, took vigorous position against the bill, and Messrs. Scrivner and Lammars upheld it. The bill was finally remanded to the Judiciary and Irrigation Committees. There is a loud call for its passage in the local press of the west side. The Stanislaus *News* says: "The people of this part of the State debated the bill for a full year. All political parties of the counties affected endorsed the measure; Governor Irwin, in his address at this place, favored it; the people demand it and now the Legislature must make its own record." The end is not yet.

The Debris Question

Is considered by a bill which we print elsewhere this week.

Water With the Land.

Mr. Sutterwhite has introduced a bill in the Senate which provides that: "Whenever any corporation organized under the laws of this State furnishes water to irrigate lands which said corporation has sold, the right to the flow and the use of said water is, and shall remain, a perpetual easement to the land so sold, at the general rates and terms established by said corporation, in pursuance of law." It also makes provision that: "Every water or canal corporation organized under the laws of this State for the purpose of furnishing or selling water for domestic or irrigating purposes or of buying and selling lands, and furnishing water to irrigate the same, shall furnish such water to any person cultivating land on the line and within the flow of any such canal, at the same rates as water is furnished to persons who purchase their lands of such corporation."

Mortgage of Growing Crops.

Senator Laine has introduced a bill in relation to the mortgage of growing crops. It provides that when a mortgage is upon growing crops, the lien thereof shall remain until such usual crop is harvested and put into the condition for sale, and until it is hauled and delinquent, to the mortgager or his agent, if the same is done within 15 days after it is harvested and put into the usual condition for sale. When enough of such crop has been delivered as aforesaid to collect for the debt for which it is security, the lien shall cease on the remaining part of such crop. This bill will be followed by one of a similar character appertaining to the monopolizing of live stock.

Minor Topics.

The Senate has passed a bill which makes every person guilty of a misdemeanor in case he take, kill, or destroy quail, partridge or grouse, in either the county of Plumas, Lassen or Sierra, between the 15th of March and 1st of September of each year. The ducks are protected between the 15th of March and the 15th of August.

The Senate has passed an act to extend the time in which swamp land district No. 125 shall complete its work of reclamation.

The Assembly has passed the Senate concurrent resolution asking for an appropriation to improve the Feather, Sacramento and San Joaquin rivers; amended by including Mokelumne river and Petaluma and Sonoma creeks.

The Assembly has passed an act to protect agriculture and to prevent the trespassing of animals upon private property in Marysville township, Yuba county.

The Assembly has passed an act to authorize Abraham S. Sally to construct and maintain a ditch to convey water for irrigating, domestic and other purposes, in San Benito.

Citizens of Merced and Mariposa petition for legislative action in regard to the protection of Yosemite Valley.

The Assembly Committee on Agriculture has been granted 15 days further time to investigate the affairs of the State agricultural society.

Treatment of Seed Wheat. — A wheat grower writes to the *Practical Farmer* concerning the use of brine in washing seed wheat. He says: "I know, from long experience, that washing the seed in brine as strong as it can be made, will prevent smut. Strong brine will enable the farmer to skim out light wheat, chess, and almost anything else that may be in the seed, as the brine will bring all such light grain to the surface much better than mere water. While the wheat is in the brine, the whole should be stirred as long as any foul seed or light wheat will rise to the surface. One bushel, at once, in a barrel, is sufficient with plenty of brine; then dip brine and wheat into a basket. When drained a few minutes, empty the grain on a clean floor. Take the same brine for another batch, and so on until you have as much as you wish to sow on that day; then sift on slacked lime gradually, while another person follows around the heap and stirs it with a shovel; put on lime until the wheat will not stick together; then let it be sown and immediately covered. The lime will then continue to stick to the wheat and be a good manure.

The San Francisco art association has just closed a very meritorious exhibition. Those who have been in the city during the past few weeks without visiting its room have missed such a treat as they cannot realize. The school of design for pupils over 14 years of age commences a new term on Monday next. Address Virgil Williams, at the rooms of the association, No. 313 Pine street, San Francisco, for particulars.

The Perils of the Seas.

Severe storms always bring to mind the perils of the seas. The gales which have blown during the last week have tossed many ships upon dangerous reefs and rocks. The dispatches from the East describe the hardships which were wrought upon the mariners of the Eastern seaboard. Nor were the inland waters free from harm. A number of dwellers near the straits of Saginaw were driven out upon Lake Huron by the violence of the gales, and were placed in extreme peril.

Our sketch upon this page depicts the danger which lies in the wake of the storm. The little band of outcasts have formed a rude float, and are casting about on the expanse of waters. A little girl has lost her footing upon the frail refuge and falls into the water. On one side rises ominously the fin of the fierce man-eater; on the other are the upraised arms of a brave rescuer. It is pleasant to believe that the boy conquered and the shark was repulsed.

AT THE MERCY OF THE WATERS.

It is proper to think of the dangers of the sea when the winds rock our houses and the floods rise. It is proper also to believe that they alone are safe whose trust is in Him whom the winds and the waves obey.

Free from Pebrine.—Dr. E. Mongrand writes to the *Societe d'Acclimatization* that he has carefully studied the life history of fifty grammes of oggs of the Yama Mai (Japanese oak silk worm). This particular insect, which lives upon the leaves of the white oak instead of the mulberry, has the great advantage over the mulberry silk worm of being free from the pebrine, or silk worm pest, which has caused so much disaster in the silk producing districts of France. The objection to its general use was founded upon a fear that the worms would be hatched before the oak leaves had appeared in France, and so would perish of starvation. Dr. Mongrand finds that the worms very soon become acclimatized, and that three years at most would be needed to accommodate their date of hatching to the appearance of the oak leaves. The brood received in 1873, for example, appeared April 2d, and had to be raised in a green house. The offspring of these were hatched in 1874, on April 9th, when the oak leaves had begun to appear; and in 1875, notwithstanding a spring of exceptional mildness, the worms did not appear until April 21st.

What our Readers Think.

The mails bring us so many good, approving words, that we cannot refrain from printing a few of them, as one would display treasures of which he is proud. We do this to show our friends that we, on our part, appreciate their approval as they appreciate our efforts. Let us then go forward together, sustaining each other, helping each other and thus advancing the great agricultural interest for, and in which, we are all laboring. The following kind words of approbation are selected from many others, because they allude to different points in our work:

A. C. Dubois writes from San Leandro, Alameda county: "Since changing my residence from Auburn to this place, I have been almost wholly disconnected from agriculture, having only a few rods of ground to cultivate; but feeling quite sure that the visits of an old and tried friend will be quite as agreeable in the year to come as in the year past, I have concluded to keep the door open by sending you the needful by to-day's express."

C. W. Clarke writes from Lakeside, Visalia, Tulare county: "I certainly shall renew my subscription to the Rural Press so long as the wherewith is to be had, for the information contained in each number that I have received during the last three years has more than paid me the subscription price."

George R. Green, of Sweetwater, Esmeralda county, Nevada, writes: "The cut and stitched improvements of the Rural Press meets with great favor here, and I think it will contribute much to the success and usefulness of the Press. Its pages will be more thoroughly read, because of its convenience. The improvements will be the turning point upon which many subscriptions will be renewed."

"A Subscriber" from Fulton, Sonoma county, writes: "I cannot refrain any longer from expressing my appreciation of your noble efforts to promote, through the columns of your paper, the advancement and welfare of the hard-working, patient farmer. How pleasant after a week's hard toil is over to gather around the cheerful fireside and drink in the words of comfort and encouragement which one never fails to find in the Rural. May your good works be crowned with the brightest success, and may you continue your labors with undiminished zeal and vigor, remembering that in due time ye shall reap, if ye faint not."

The Cost of Raising Cotton in Georgia.—Col. D. H. Hardaway, a planter of Thomas county, Ga., who keeps an account of his planting operations, has been investigating the question of the cost of raising cotton, and gives the following as the result for a series of seven years, commencing with 1866 and ending with 1872: "It gives me pleasure to promptly answer your questions as to the cost to raise cotton. I give the cost per cwt. for seven years, to wit: 1866, $14.50; 1867, $12.50; 1868, $12 25; 1869, $10.90; 1870, $8.60; 1871, $13.61; 1872, $10.77. The average is $11 88. This includes interest on land, repairs, interest on team, taxes, value of fertilizers, labor of cultivating, picking and packing, but nothing added for personal supevision. The latter would be hard to estimate. This year's crop has not been marketed, but will not exceed ten cents."

CORRESPONDENCE.

Tree Planting, Farm Notes, Etc.

MESSRS. EDITORS:—In no former season in the history of this valley has there been such a general and wide-spread movement among all classes, in the way of tree planting, as the present. In town and country, in the valley and among the foothills, by farmers, fruit growers and home makers, this seems to be the order of the day—planting trees for fruit and fuel, for shade and shelter, for beauty and use, in orchard, lawn, lot and garden, along the roadsides, and on nooks and corners of waste land on the ranches, the good work goes bravely on. This is just as it should be. Let every man who owns a 50 vara lot, or a 1,000 acre farm, plant all the trees he can pay for and take good care of them, with the confident expectation that in due time they will richly repay the trouble and outlay, in fruit, fuel, shelter, beauty and comfort; besides adding more to the cash value of the property than anything else which costs so little.

The peculiar propitiousness of the season has, no doubt, encouraged and stimulated the people to engage so generally in this interesting line of improvements, and it was very fortunate for the country as well as the nurserymen themselves, that they were so well able to meet the large demand for trees of all kinds. I know that there was some anxiety in their minds before the planting season set in, so at their being able to dispose of their unprecedentedly large stocks this season, considering the stringency of money matters. But from present appearances I have no doubt but they will be able to close out all they have on the market for sale. No doubt their liberal advertisements in the RURAL PRESS has contributed much to this result. But there is yet ample time for ordering trees, and the season could not be better; so let the good work go on all over the State of planting trees, for

"A thing of beauty is a joy forever."

Progressive Cullors.

In driving through "The Willows" the other day, I noticed many newly planted orchards, and saw many others preparing their grounds and planting. Passing by Mr. S. Newhall's Los Gatos nursery, I met at the gate a four-horse load of trees, piled up like a load of hay, just coming out, while several other parties inside were busy selecting and loading trees on spring wagons.

Calling at Mr. O. C. Wells' place, south of Lincoln avenue, I found him busily engaged in nicely leveling off an eight acre lot, in which he had just planted 1,000 trees—German, French and Hungarian prunes. Perhaps Mr. Wells has as good tree and garden land as can be found—even in the Willows—as his splendid, smooth-barked, well-grown cherry, prune, and other trees will show. Mr. Wells informed me that from 1,500 blackberry plants, occupying the space of an acre and a quarter of land, he picked, last season, 115 chests of berries of 100 pounds each, and which sold for $700. He has contracted for a Bookwalter portable steam engine of four and a half horse power, for the purpose of pumping water from his two wells to irrigate his grounds. The engine set up will cost about $400. Mr. Wells thinks this arrangement will prove more satisfactory and efficient, and more economical in the long run, than to pump water by horse power, as he has been doing.

Onions and Lettuce.

The Frank Bray land on the Alameda avenue, is again planted in onions, for seed. Mr. R. W. Wilson, an experienced seed grower from the East, had this, and several other pieces of land in the neighborhood, planted in onions and lettuce for seed last year. The enterprise was so far satisfactory as to induce Mr. W. to continue in the same business. This piece of land was planted with onions of the Yellow Danvers variety early last fall before the rains commenced, and they are already so well grown that from the road the whole field looks quite green. The land is a rich black loamy soil, and the onions stand thick and evenly in the rows, all under a high state of cultivation.

Hay and Squashes.

Some days ago I noticed a large pile of the finest squashes I have seen this year, on Mr. C. B. Polhemus' place, between Santa Clara and San Jose. His foreman, Mr. Larkin, informed me they were raised in a field near the Guadalupe river, on which they had cut this summer a heavy crop of hay, making five tons to the acre. He said the squashes turned off about twenty tons to the acre; pretty good for two crops in one season. The land is a deep black loam, about as rich as it can be.

After a protracted storm of cold, uncomfortable rainy weather our sky is clear and bright again, and the glorious sunshine, warm, bright and cheerful, brings joy and gladness to the heart of every living creature, and our whole valley, from mountain to mountain, presents a picture of rare rural beauty unsurpassed in any country; green fields of growing grain as far as the eye can reach and the mountain slopes to their very summits clothed in pastures of brightest green—contrasting strangely with the patches of "the beautiful snow" yet remaining on their higher places.

Work Renewed.

Farm, orchard and garden work, which has been suspended for a time on account of the rains, will now be renewed again with increased vigor if the weather keeps fair. All over the valley, except on some low lands near the bay, wheat sowing has been about finished and is looking splendid, and all our farmers feel hopeful and cheerful in prospect of abundant harvests of all kinds.

The Improved "Press."

It was a lucky thought that led to the plan of cutting the leaves and stitching the RURAL PRESS, for which more of your patrons say "thanks" than you are likely ever to hear of. Hunting up a needle and thread to stitch the paper and to cut the leaves was but a small job, yet many persons would never take the time and trouble to do it; so the paper was turned upside down and over and over to be read, until it was worn out and torn, or laid aside in so unlovely a shape as to guarantee its never being used again, except for waste paper. But now it comes in a shape so convenient and satisfactory as not only to secure a better perusal, but far more likely to be preserved and filed away than formerly. G. W. M.

Santa Clara, Cal., Jan. 28th, 1876.

The Parks Dam.

MESSRS. EDITORS:—I am one of the parties you style "honest opponents," and have never in the past five years, since this remarkable dam has been built, favored the different modes of abatement of the "nuisance," and have been all the time trying to get some relief in the channels you so highly commend; but whilst employing eminent counsel at great cost, the settlers above and below the "dam" have been "baffled" so often that the first law of self-preservation seems to be their only hope. For the cases in the courts will be sent up and down, as they have already been, until more property above is ruined than is reclaimed below.

The Facts in the Case

Are as follows: The dam from the Butte mountains to and across Butte creek and Butte slough to the left bank of the Sacramento river, crosses the large stream of living water, Butte creek, and turns it back for twelve miles on high "pre-empted" lands, as well as swamp lands, both of which were made valueless and thousands of acres of grain being flooded and ruined by pouding back waters in the basin above, which water did pass along as soon as the dam was removed by the *Alta's* "honest farmers." It passed off without "increasing" the water in the "pen" below, for the water in the pen connected on a level with the river at the junction of Feather river, and almost entirely submerged the lower dam across from Knight's Landing east to Feather river. This lower pond has not the right to be called a pen even, for it was free to flow on without obstruction of levee or dam to the bay. So you will readily see that at this junction waters would not back *beyond* their *level*, and that level was more than five miles south of the upper dam; therefore, all the damage it could do was by running along its ancient and well defined channel of Butte slough and creek, through which it has run for ages past. It could do this too without raising the water below one particle higher after the two days it required to empty the pond above made by the dam on the south and Sacramento and Feather rivers on east and west. This formed a basin of 60,000 acres, of from two to 18 feet deep, over the very best lands in the State, much of which was in grain and used by its owners as "homes" for themselves and families, and they were in fact "honest farmers," as their comfotable homes and honorable reputation will prove.

The Injured Parties.

These were the parties you so candidly admit you do not know their cause of complaint when you join in with some of your city press to call the acts these men (that have removed this monster that had been a terror for the last five years, and altogether been built and removed four times, either by the law of gravitation or the first of all laws, the law of self-preservation,) barbarous acts. As we know you to be disposed to do justice we would be pleased to meet yourselves or reporters and have you hear the other side of the story; then we are quite sure you would see in our homes some rights that "even capital" ought to respect. Even the swamp land owners do not approve of this "dam" across a natural water course. The overflow of Sacramento and Feather rivers, Chico, Butte and other creeks and sloughs from the foothills altogether makes a volume of water many times greater than the river itself in times of great floods. Swamp land interests are in favor of leveeing the banks of the water courses, thereby increasing their carrying capacity. A "dam" is an obstruction placed across a water course. The settled law of riparian proprietors for ages does not sanction such a "taking" of private property for a public use, much more a private use, without first making provisions in the law under which they were acting, first for compensation and then actually making compensation. Any law short of this is unjust, unconstitutional and void, and even if, as in this case, this law makes it a "felony" to cut an obstruction of this kind and be "dragged" off to any county in the State. All such acts must be finally declared unconstitutional and void. But such proceedings may be too expensive a luxury for the farmer of small means to indulge in, and may well cause him to hide his face, not for protecting his little all, but for shame for such "laws" that the legislature should at once repeal as worse than void. P. B.

Practical Questions.

MESSRS. EDITORS:—I see but little in your paper on the subjects of manure, tile-draining and high cultivation, with rotation of crops. It seems to me that the system usually pursued of raising the same crops year after year for five, 10 or even 20 years is very injurious to the soil and to the future interests of the State: 1st. Has any of your readers had any experience in turning under green crops, especially clover, for manure? 2d. Can the red and white clover be grown here successfully, sown with other crops, such as wheat, rye, barley, etc.? If it can I should think clover might be sown with grain and get a good root the first year, so as to come out the following spring and make a good top to turn under by the time one would want to plow for corn. 3d. Can any of your readers give any experience in tile-draining? This is a subject which I think is worthy the interest of the farming community. It does not look well to see great ponds of water standing on the grain fields day after day and drowning the wheat, and making chess grow, or as some will have it, turning the wheat to chess; and it looks about as bad to see furrows plowed through it, to draw the water off, over the surface, taking with it the life and strength of the soil. What say your subscribers about this matter? 4th. Is there not one man in this whole State who can say he never raises the same crop twice in succession from the same ground, and that he feeds his crops to stock on the place, soils his stock and carefully saves the manure and returns it to the land? If there is such a man will he not tell us how he does it? The communication of M. Eyre, Jr., in the RURAL of January 29th, is deserving of commendation. It is valuable and just to the point. Please "do so again," Mr. Eyre.

YOUNG FARMER.

Fulton, Cal., Jan. 31st, 1876.

[We commend these questions to the attention of our readers. Let us have your experience, gentlemen farmers. All the points mentioned are worthy of a full discussion, and we trust they will receive such from our correspondents.—EDS. PRESS.]

Granite Hill, El Dorado Co.

MESSRS. EDITORS:—It is seldom you are called on to chronicle anything from this part of our State. Occupying the position we do, it would be but reasonable to suppose that we were somewhat exalted; but strange as it may appear, the contrary is the case, for you would hardly find a more humble or obliging people anywhere. The lofty snow clad Sierras east of us, continually remind our people of their insignificance and littleness, compared with the rest of the great works of a beneficent creator. But, all things considered, it can be truthfully said that our locality can hardly be surpassed, if equaled, in any other section for fine climate, productive soil, and adaptability to the growing of the most of the desirable varieties of fruit.

At the risk of proving tedious I will here mention a few varieties that excel in this county: The peach grows in all its perfection, surpassing in flavor and quality anything of the kind raised in any of the valley counties of this State; the nectarine, apricot and plum are simply superb, delicious, melting, and unsurpassably rich; and our grapes—what shall I say for them? I fear my pen cannot do them justice. Suffice it to say they are all the eye or the most cultivated taste could wish or desire. Our apples for flavor or keeping qualities are certainly equal to any in the State. Other kinds and varieties of fruit, such as blackberries, raspberries, strawberries, gooseberries, etc., do excellently, are of good flavor and bear abundantly. Black walnuts, English walnuts, almonds and figs, do reasonably well; and nowhere in the State can be found a soil or climate better adapted to the raising of pears of every variety and description than here. I might go on and say much more that would be appropriate and truthful, but forbear for fear that some one would think that I am in some way or other influenced by land speculators, or engaged in some swindling enterprise.

Jan. 21st, 1876. J. G. O.

Progress in Fresno.

MESSRS. EDITORS:—Having had a look through your paper and seeing nothing from our part, I presume to write you a few lines. We live in the eastern part of Fresno county, about two miles from Kings river. This portion of the country is just being settled up with as good a set of farmers as ever the sun shone on, which is bound to make this one of the best portions of California. Early sowed grain looks splendid; farmers are at present busy planting vines and fruit trees, and making their homes pleasant generally. W. LIVERMORE.

Kingsburg, Tulare Co., Cal.

Travels about Santa Rosa.

MESSRS. EDITORS:—One morning lately the clouds lifted from the mountain sides, revealing snow clad summits stretching inland from the bay of San Francisco to St. Helena. It was quite an Alpine picture contrasted with the living green of the valley. During a few following days more snow fell on the hill tops, and one morning the ground was frozen. The thermometer marked 25° January 21st. Happily a fog interposed to save vegetation, and fruit buds escaped injury.

Alfalfa Hay.

The demand for hay and its rapidly advancing price is directing more attention to the cultivation of lucerne (alfalfa). It is within the writer's observation that five crops were taken last year from one field, averaging at least one ton per acre. On the 26th of last October Mr. Josias Davis sowed a field of lucerne in the common black soil of this valley. It is not fairly sandy loam, nor yet much inclined to adobe. The ground seems a little tenacious or retentive of moisture. It had been in corn. Rain fell the day after seeding and the plants came along finely through the autumn and winter showers, until to-day the growth is three inches, with roots the same length. Like many newly seeded fields the young plants have to contend with a volunteer growth of native grasses. There is no danger but that the alfalfa will get the mastery when dry weather sets in. Wherever tried in this region it has proved very productive, and it stands high in the popular estimate as a forage plant. Fortunately there are weighty reasons for this favorable opinion, which should be published again and again to encourage its cultivation. Following is a statement giving the results of long continued and careful experiments by European savants, to determine its value for food, as compared with timothy hay, etc. These tests to determine practical values were conducted by Boussingault, Fresenius, Block, Petri, Meyer, Thaer and others. As much nutriment as is contained in 100 pounds of the best English hay was found in each of the following, which is the mean of the results by all the observers:

	lbs.		lbs.
Mangel Wurzel	346	Indian corn	56
Oat straw	240	Barley	51
Potatoes	195	Beans	46
Lucerne	93	Wheat	46
Oats	59		

It requires 240 pounds of oat straw to furnish as much feed as 100 pounds of good timothy hay, or 93 pounds of alfalfa, or 46 pounds of wheat, and so on.

The writer takes no sort of credit to himself for the foregoing labor of others. The guide board was painted before; he only puts it on a post to be seen by the readers of the RURAL PRESS, and hopes it will furnish more than one useful idea. J. B. ARMSTRONG,

Santa Rosa, Cal., Jan. 26, 1876.

Winter in Mendocino.

MESSRS. EDITORS:—Up to the 17th of January this vicinity had been enjoying most admirable weather for the three previous months. It was heard on every side, "I never saw so mild a winter." The hills and valleys were clothed in a vernal robe, our little birds had not "flitted south," nor sought for climes more congenial, but from every tree went up their beautiful songs and anthems of praise. But the scene has changed; the whole country lies beneath a coating of "beautiful snow," from one to four feet in thickness. Large numbers of stock will undoubtedly perish. Thousands of sheep are enshrouded with two feet of this winter garb. The temperature has fallen to 12° above zero—the coldest ever known here.

I. H. C.

Cahto, Mendocino Co., Cal.

Idaho Fat Cattle.

MESSRS. EDITORS:—So far this winter we have had very mild, open weather. There have been very heavy rains, which insures us fine crops next season, and plenty of water for the mines. But on the 10th inst. it turned cold, and has now frozen so much as to stop plowing. Grass is fresh and green from the effects of the fall rains, and our stock on the hills are fat, and unless a very unexpectedly severe winter comes yet our cattle will come into your markets fat all winter and spring. Large numbers of beef cattle are driven from this part of Idaho to the railroad and shipped to San Francisco. Hence, we presume you feel an interest in the wintering of our stock. A. B. R.

Boise City, Idaho, Jan. 13th.

THE BLUISH GREEN BRONZES used for ornamental articles are very easily imitated. Almost any metal is first covered with a varnish made of ground tin or bronze powder rubbed up with honey in gum water. Then wash with a mixture composed of sal ammoniac half ounce, common salt, half ounce, and one ounce of spirit of hartshorn in one pint of vinegar. After applying the mixture, leave for a day or two in the sun, and then, if necessary, add a second coat. This is a good way to renovate old gas fixtures.

HORTICULTURE.

Hints on Orchard Culture.

MESSRS. EDITORS:—I have read with pleasure in the last number of the RURAL a very able article from L. D. Chilson, of San Buenaventura, on "Orchard Culture," and I may say that in the main I fully agree with Mr. Chillson. His ideas, as an orchardist, smack of common sense and practical knowledge; but in some details the latter will allow me to differ with him.

First, in the course of his letter, Mr. Chillson says: "I notice in your last issue—in the communication of Felix Gillet—that when an orchard is once planted nothing is to be done, except wait until the trees commence fruiting, then gather the crop and place the proceeds in your pocket. Attempts have been made at growing orchards upon that principle in this portion of the State, and with what success the dead trees piled up in hedge fence row, in certain localities, will testify," etc.

I will say to my horticulturist friend of San Buenaventura, that in the letter referred to I not only didn't use the word orchard, which would have not been proper for the subject I was treating; but, as the heading and the article itself showed, I was talking on nothing else than nut bearing trees, whose immense proportions had nothing to do or compare with the relatively mere shrubs of our common orchards—peach, plum, apple, pear, etc.

Chestnut and walnut trees—as I have seen them in France the last time, eleven years ago, while on a visit to the old country—after being planted, and the head shaped as I described it in my letter, are entirely let to themselves, and if Mr. Chillson would go in Limousin, in Central France, where I have seen miles and miles of chestnut trees—the people there feeding mostly on mush made with chestnut meal—and he would tell those people to cultivate their chestnut plantations as they do a peach orchard, they would simply laugh at him. And if from Limousin he would go into the adjoining province—Poitou—which is covered with walnuts, and in Languedoc, where the almonds are raised, and tell the people that they had better prune their trees, they would surely think the man was crazy; it is done only when the trees are very old.

Both chestnuts and walnuts are more generally planted on barren lands, on the sides of hills, in the Cevennes, Alps and Pyrenees, and where hardly anything else but forest trees can be raised; and that is what made me say that our foothills from Plumas to San Bernardino were so admirably adapted to the nut-bearing trees of all kinds. As to filberts, let Mr. Chillson go to Aragon (Spain), where they raised the Avelines; and Piedmont (Italy), where those large round nuts come from, and he will find that those filbert orchards are as much cultivated as the wild hazel orchards of California. I had a right, then, to say that the great advantage to cultivate all these kinds of nuts is that once the trees are set out and the heads shaped in the manner described in said letter, they required no labor whatever.

I hope that my Ventura friend is satisfied now that a walnut is not a peach tree. Having done as much as taken up the pen, I will add a few words on

Orchard Culture.

I must say to my subscriber friends of the RURAL that in the winter of 1870 I not only stocked my place with the best varieties of fruit I could procure in this State, but imported from a well recommended nursery in France 700 trees, including 75 of the very best fruit varieties known there. Thanks to the Prussian war, my invoice was two months more on the way, and 132 days after leaving the nursery of Auvonay, it arrived at Nevada City, via New York and the Pacific railroad, right on the 21st day of March, 1871. I immediately planted the trees, everything being in readiness for it; I did not lose a single one of my standard trees, and on 600 mulberry trees lost only five. So to-day I have a very nice orchard of fruit trees, straight as an arrow, with heads well shaped and at five to six feet from the ground, except peach, fig, quince and meddlar, whose heads have to be a great deal lower, say four feet. Since, I have planted hundreds of trees which are growing very nicely without irrigation, having got no water even the year they were set out. The secret in my succeeding so well in raising trees without a drop of water on my barren hill, lies in the way I set the trees. First, I dig out holes four feet square, and at least two feet deep, then I throw in the bottom anything I can get, debris of plants which I keep rotting in a great big hole for that purpose, or any other compost, like ashes, bones, rags, leather, shavings, hair, old iron (for peach tree holes), or else green pine leaves and leaves of any kind, anything that will keep down the moisture and act as a slow manure for the development of young roots, particularly the tap-root. I cover that stuff with the top dirt of the hole, which has to be thrown out on one side when making the holes; and I set the tree, having first driven in a stout stake. In planting my trees I always use a liberal supply of rotten manure, being careful, however, to throw it in six inches from the body of the tree, not caring to have any tree grow any suckers. I fill up the hole with the bottom dirt, and finally mulch the ground round the tree, using dried pine leaves that are right at hand. Trees set in such a way do not require any water at all; though I admit that if any can be given to them in the first year it will be safer and give the trees a better start. I do likewise with grapevines, the only difference being in the size of the holes. On the second or third year, whenever I have time, I spade or plow the ground all along the rows of trees, six feet on each side. I assert that the main thing in the setting out of an orchard is to plant the trees as I just described it above, and afterwards keeping the ground cultivated, free of weeds right in a certain radius round each tree.

Mr. Chillson is right in recommending to plant trees as soon as the leaves have shed, that is in early winter, though in our northern counties it really does not make much difference in the growth of the trees. This I have tried fully myself; however, I by far prefer winter planting, for several reasons: 1st. There is always plenty of work in the spring without that of setting out trees. 2d. A tree planted early has the dirt solidly packed round the roots by subsequent rain. 3d. After January, especially if the weather is warm, sap is already up and roots getting ready to start, too.

I will always be glad to have a call from any readers of the RURAL that may happen to come up this way, and I will take pleasure in showing them what a man can do without water on a barren hill by a rational method of setting out trees, and a proper way of taking care of them. Now as to

Pruning,

Let me say that it is the most delicate operation of the orchardist's work. Mr. Chillson speaks of pruning the walnut and almond, in that I will tell him he makes a big and fatal mistake, and I hope that for the sake of getting nuts, his suggestions in that respect will be heeded by nobody. Who ever heard of pruning a walnut before the tree gets to be a hundred years old? Never is any green wood pruned from the walnut; it is the very wood that bears the nuts, as with the almond. Here is a list of fruit trees that are the losers by pruning: walnut, chestnut, almond, cherry, plum and meddlar, the last one the worst of all, as the fruit comes out at the point of every branch or little twig. With all those trees the only pruning that has to be done is in taking off the dead wood or giving the trees a better shape or more air inside, otherwise pruning with them does not help fruiting whatever. As to the peach tree, people will bear in mind that like the grapevine, it fruits only on one year old wood.

Points to Consider.

In conclusion, for I must cut it short, I will here beg people to consider five things in starting out an orchard:

First, Select the very best varieties that you can get, according to your means; and remember that a superior variety, for which you will have to pay a big price, is, in the end, cheaper than an inferior one costing but little.

Second, Do not set in your orchard any more trees or vines than you can properly take care of.

Third, If you have room for only one hundred trees, do not try to set out twice that number. Trees set widely apart, with plenty air and space all round, will bear better and the fruit be of a superior quality.

Fourth, When setting out trees, dig out large, deep holes, and do not spare your manure, for it is the very time the young trees need it to get a good start.

Fifth, Be careful what you do when arming yourself with the saw, shears and knife, and do not slaughter down your trees, in the idea that you are pruning them, and the expectation of making them fruit better by this sad operation.

Sixth and last, Bear always in mind, in setting out orchards, that it is better to have 100 trees planted as recommended above and well taken care of than 1 000 of them set and raised in the careless way too often done in this country of go-ahead people, and which has been the cause of so many failures in fruit-tree planting, as complained by Mr. Chillson.

All these are facts, founded on common practice and observation, and which, I am satisfied, will meet the approval of every intelligent and practical orchardist or nurseryman in this State.

I will not close up this letter without congratulating you upon the

New Improvements

brought upon the RURAL PRESS. You had pledged yourselves to make of it a first-class paper on agriculture, and second to none in these United States, and when showing such liberal and enlightened views as you do, I know that every practical subscriber of the PRESS will help you in your laudable enterprise. I know that the improvement of having your paper cut and stitched has been most welcomed by every reader of the PRESS as a very big improvement. And I know, too, that your readers and people that advertise are no less appreciative of that other good improvement of noticing new advertisements on your editorial page, right below the Table of Contents, and where the notice is sure to meet the gaze of the reader. I regard it, too, as a greater inducement for advertising, that little notice calling the immediate attention of said reader to any new advertisement. And it is in wishing you the success that you so richly deserve, that I have the pleasure of renewing my subscription just ready to end. FELIX GILLET.

Nevada City, Jan. 30th, 1876.

BEES.

Bee Keepers.

Practical Hints.

We find in the *Journal of Agriculture* some "practical hints" by J. P. N. Brown, a bee keeper of Augusta, Georgia, which we quote. There are some suggestions which will be timely here. We would deem it a special favor if our California bee keeping readers would write us more freely of their experiences and methods. There is just as wide a field for progress in bee keeping as in other fine arts of agricultural production. Each bee keeper could learn something of value if all would compare notes through our columns. Please let us know, friends, what your are doing and how you are doing it The following are Mr. Brown's points:

How to Protect Comb From the Moth Larvæ.

Bee keepers should never melt up good worker comb, but carefully save it for guides and for filling up frames, so as to give the bees a start in the spring. It can be very easily protected and saved from the ravages of the worms by fumigating it with sulphur. For this purpose procure a good sized dry goods box. Nail supports across near the top upon which to hang your frames of comb. If you have loose comb you can lay it across the top of your frames. Cut a hole six inches square at the bottom of one side of the box, through which to pass your fumigating materials. Fit a slide to this hole. Use several thicknesses of old blankets or carpets for a cover.

Prepare your brimstone matches by passing ribbons cut from a newspaper through melted sulphur. This should be melted in a shallow iron vessel, and great care taken not to get it too hot or it will ignite, and give off sulphurous acid and fumes, which are very injurious to the lungs. Break up these sulphur ribbons into pieces about three inches long. Lay about half a dozen pieces on a small plate, ignite and at once pass the plate through the hole in the box and close the slide. Every hatched worm in the comb will be killed, and it is quite probable that the sulphurous fumes will destroy the vitality of all moth eggs. Allow the box to remain closed at least twenty-four hours before removing the comb.

Look Out for Ants.

When the weather gets cold ants will sometimes collect over or near the ends of the frames under the honey quilt, where it is warm, and sponge on the bees. If not dislodged a large nest of these vermin will consume considerable honey.

Hives.

Now is the time to think of getting hives, honey boxes, etc., ready for spring operations.

If you make your own hives select well seasoned lumber, put them together accurately and substantially, and well paint them. Hives thus made cost a little more, but are the cheapest in the end. The reader must here bear especially in mind that the use of frames in hives is public property—that he can make and arrange them as he has a mind, without caring a "continental" for any patent. It is also well to recollect that large yields of honey are less dependent upon this or that sort of a hive than the man.

Bee Pasturage.

Those who intend sowing white Dutch clover for bee forage should lose no time in doing it. In our climate it must be sown early, so as to get rooted before the hot and dry weather comes on. If sown late it is very difficult to get a stand. It will grow in a sandy soil if sufficiently rich, but it thrives best where there is some clay. Save your poplar timber. Plant young trees of it in your low lands. If you want shade trees in yards select the varnish tree. It is a fine bee tree and very ornamental. It grows well in this latitude and further south. The linden is a good bee tree but it is of such slow growth that it takes many years before it produces a return.

AGE AND OBJECT OF THE PYRAMIDS.—M. A. Dufew, member of the Egpytian Institute and of the "Society of Historic Studies of Paris," claims to have made some very valuable discoveries relative to the age and object of the four pyramids of Gizah, principally of the great pyramid, containing chronologic and scientific data for establishing the date of their construction, for determining the era of the monarchy of the Pharaohs, and the degree of knowledge displayed by the ancient Egyptians in astronomy, geodesy, hydraulics, geography, geology, and in regulating the inundations of the Nile for the benefit of their agriculture. He has written a book about it, in which he claims that the methods by which he has been led to his discoveries are entirely new. According to his view Menes ascended the throne of Egypt 5,641 years before Christ; the great pyramid was founded 4,862 years before Christ; all the pyramids were designed simply as monuments of high science, and were the work of priests of the idolatrous religion of the Pharaohs. The mystery of these awful monuments of the past has been penetrated and reported upon so often and so differently, by different students of the subject, that one cannot help feeling as though fancy has as much to do with the interpretation of the pyramids as science or judgment. M. Dufew is sharply criticised by some of his own countrymen, probably with justice.

THE DAIRY.

Questions in Setting Milk.

MESSRS. EDITORS:—As a farmer I call you friends. I have run a dairy sometimes, at present I do not, but I may in a short time. I want to say a few words in relation to the California creamery described in the RURAL PRESS of January 1st, 1876, at Point Reyes. We liked the statement made, and would further ask through your valuable paper for the experience of that creamery as to the amount of butter made to the pound or gallon of milk, and the experience in deep and shallow setting of milk. Which produces the most butter? I am interested to know if deep setting of milk will make as much butter as shallow, for it surely is much the better and cheaper way of handling milk.

In getting answers to my questions through the dairyman, now or in course of time, you will oblige a well wisher. Thanks for the January 1st number of the RURAL PRESS. Our county is and will be mostly interested in dairying. Our butter is good, as you will see by the Del Norte quotations. JAMES H. HALL.

Smith River, Del Norte county.

[Will Mr. H. Claussen, of the Point Reyes creamery, please inform us what is his experience with deep and shallow setting; also, how many pounds of milk are required to make a pound of butter in his establishment.—EDS. PRESS.]

The Grasses.

The following note on the grasses mentioned was read by John Henderson before the New York Farmers' Club recently:

In the laying down of lands to grass, the plants must be suited to the quality of the soil, as some delight more in moisture than others; some succeed the best in clayey soils, others in those of a loamy kind, some in such as partake of the nature of peat, and a few in the calcareous sort. But from the vague manner in which soils are frequently described, and the various acceptations of the same terms in different parts of the country, it is difficult for a farmer who reads an account of the agriculture in any other section than that in which he resides to judge what relation such a soil may bear to that which he himself occupies. It is therefore evident that a certain amount of knowledge of the components of arable soils is necessary for a proper understanding of grass culture. As stated in the previous paper the grasses best suited to light loamy soils will receive our attention in this, and here it is proper to remark that by the term loam is meant that kind of soil which appears to be an intimate mixture of all the other earths reduced to a fine and equable state. It is of different colors. On elevated table lands it is mostly red, on gradual slopes it is yellow or hazel, and in the valleys it is almost black. The two first appear to be deposits from the general, the last from partial floods. It is found reposing on stone, on clay, or on gravel of various depths, sometimes in deep beds, but in general always deep enough for every purpose of the farmer. Its consistence is friable, readily admitting air and rain, and as readily discharging all excess of the latter, only retaining or imbibing from the air as much as is necessary to vegetation, and neither liable to be parched in summer nor drenched and chilled by surface water in winter. Such being the characteristic of loam or a loamy soil, it is in request by every cultivator, and every industrious one endeavors to bring his land of an opposite character as near to the standard and nature of loam as possible. It may readily be perceived, by the foregoing remarks, how the terms, clayey loams, gravelly loams, sandy loams, etc., are in such general use; and how necessary it is, in the absence of established and reliable rules, by which all soils should be known and classified, to specify distinctly the general character of a soil in order to arrive at a proper understanding of what grasses are suitable for it. For light clayey loams, orchard grass, whether sown alone or in a mixture, will prove a satisfactory one; it is a grass which accommodates itself to a variety of soils, and is one of the best pasture grasses we have; its rapidity of growth, the property it possesses of resisting a severe drouth better than any other grass, its arriving at maturity, the luxuriance of its aftermath, and its power of enduring the cropping of cattle, entitle it to an equality with any grass, either native or foreign, that is being cultivated in the county. Meadow foxtail is also an excellent grass for light clay loams. It vegetates with great luxuriance, and is, therefore, both as a first crop and as after-grass, justly considered as equal to the best grass, whether used as a green fodder or made in hay. It shoots very rapidly after mowing, producing a very plentiful aftermath. It has been found more hardy against frosts than any other grasses—a property which recommends it for cultivation in this country. It did well with me last season, and is now undergoing a winter test. Yellow oat grass (*Avena flavescens*) grows naturally in dry pastures on rather light and good soils, yields a considerable bulk of fine herbage, and deserves to form a position of all mixture on light, dry soils either for hay or pasture.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is at No. 351 Market St.

New Constitution and By-Laws.

We have the amended form of the Constitution and By-Laws and Rules of Order of the State Grange; the Declaration of Purposes, Constitution and By-Laws of the National Grange, and blank form of Subordinate Grange Constitution and By-Laws, now printed in one pamphlet. Granges supplied at five cents per copy, post paid. The special code of Subordinate Granges printed and bound in the above form for $9 per 100 or upwards, according to amount of changes required. For all over 100 copies, 4 cents per copy.

Grangers' Business Association of California.

Notice of Annual Meeting of Stockholders.

The Annual Meeting of the Stockholders of the Grangers' Business Association of California, for the election of Directors, will be held at the office of the corporation, in the building at the north-east corner of California and Davis streets, in the city and county of San Francisco, on Wednesday, the sixteenth day of February, 1876, at the hour of ten o'clock in the forenoon of that day.

T. J. Brooke, Vice-President. William Vanderbilt, Secretary.

Organization of Stanislaus Pomona Grange.

Messrs. Editors: — According to appointment, I had the pleasnre of meeting the Patrons of Stanislaus county at Modesto, Monday, the 7th inst., for the organization of a Pomona Grange in that county. Notwithstanding the fact that four Granges had, by a misunderstanding, not elected delegates, nevertheless I was much pleased to have so full an attendance, and take pleasure in testifying to the earnest zeal and enthusiasm manifested by the sisters and brothers present.

The Granges were represented as follows: Stanislaus, No. 4, one Master, one Past Master and two Matrons; Salida. No. 8, one Master, one Past Master, two Matrons and two delegates; Turlock, No. 29, one Past Master, one Matron and two delegates; Ceres, No. 64, one Master, one Matron and three delegates, one of whom was a sister; Waterford, No. 57, one Master, one Past Master, one Matron and one delegate; Oakdale, No. 160, one Master and one Matron; making a total of twenty-five charter members. In this connection allow me to urge upon the Patrons about to form Pomona Granges the necessity of electing their delegates (not exceeding three,) before the day set for organizing, one of whom *must* be a sister. These delegates then receive the fifth degree on the day that the Grange is instituted, which gives more material for selecting proper officers and starting the Pomona Grange under more favorable auspices.

I send you herewith the list of officers elected. These were duly installed by myself, with the assistance of Bro. Parks of Salida Grange. (The list of officers will be found in the proper column.)

In the evening the Grange again met, when the fifth degree of the Order was conferred upon eight brothers and two sisters. The beautiful ceremony of initiation in this degree was very impressively and ably rendered by the several officers, and particularly beautiful was the scene presented by Pomona's court, the ladies being dressed in white, adorned with wreaths and garlands of lovely flowers. At the conclusion of the ceremonies all were invited to partake of Pomona's bountiful feast, and an hour was spent in pleasant social intercourse, after which the Grange was called to order, and several important matters introdneed, which were referred to committees. The Grange then adjourned to meet again next morning for the transaction of important business. It will be observed that this Pomona Grange was organized for business, and judging by the able manner and the earnestness which they manifested, I will vouchsafe to them a career of nsefulness and success.

I very mnch enjoyed the meeting with Brother and Sister Spencer, and Brother and Sister Reyburn, when the pleasant meeting of the State Grange at Napa was again called to memory, and its pleasant associations renewed. But even pleasant thiugs must have an ending and thus we reluctantly bade adieu to our good sisters and brothers, and to Stanislaus with its vast wheat fields, and happy homes of honored and thrifty Patrons.

I wish here to return thanks to the brothers and sisters of Stanislaus county for their cordial reception and kind treatment.

T. H. Merry, State Deputy.

Another Pomona Grange.—The four Subordinate Granges of Nevada county have organized for a Pomona Grange. Each Grange elects three delegates, to whom the Master and his wife, if a Matron, are joined. Grass Valley Grange has elected as its delegates, Miss Janet Henderson, Alex. Henderson and Wm. Stevens. Magnolia Grange elected Miss Flora Denton, I. N. Ritchie and P. A. Womack. No returns have yet been received from the other Granges.

From the Granges.

Franklin Grange, No. 147.

The newly elected officers of Franklin Grange, Sacramento, were dnly installed by our Worthy Master, Amos Adams, Jan. 15th, 1876. The sisters prepared a table in the hall, well set out with roast turkey, chicken, pies, cakes and the best of everything that conld be thonght of in the eating line. When dinner was annonnced, our Worthy Past Master, at the head of the table, said he thonght it nnnecessary to instrnct the members of the Franklin Grange in this part of the work of the Order, as he had witnessed their proficiency on several former occasions. It is nnnecessary to say that we concurred. A vote of thanks was extended by the Grange to Bro. Adams for the efficient and faithful manner in which he had discharged the duties of Master of this Grange for the last two years.

We extend Brother Adams onr best wishes in his new fiold of operations, as Secretary of State Grange, believing the State Grange have the right man in the right place.

Our newly elected Master, Bro. Johnston, is well qualified for Master, takes great interest in the Order, and will see that his Grange moves onward. Our Secretary, Sister S. G. Bradford, is specially suited for the office of Secretary, and will be very zealous in keeping up the life and interests of the Grange.

Fraternally yours' P. R. B.

Franklin Grange, No. 135.

Messrs. Editors:—As items pertaining to agricnlture are always welcome to the readers of the Press, I will give you snch news as I have been able to obtain: The farmers are bnsy putting in their wheat and barley, and as we have so far had plenty of rain, they are all in good spirits and confident of receiving a bountiful reward for their labors. With our improved facilities for irrigation and rich soil, prosperity is bound to follow the plow as the day follows the night.

Franklin Grange, No. 135, gave a feast to the citizens of Grangeville on Saturday last; after which there was a public installation of officers of the Grange for the ensuing year. The house was crowded to its utmost capacity with Grangers and a number of strangers.

About three o'clock the people dispersed to their homes to get ready to "make a night of it," as they did by assembling in the evening at the schoolhouse, where

> The young looked on in great surprise
> To see those old and getting gray,
> With winged feet and laughing eyes,
> Outskip the gayest of the gay;
> 'Twas back and forth, and left and right,
> Without a care of what's to come;
> Till some one said, "it's past midnight;
> 'Tis Sunday morning, let's go home."

Grangeville, Cal., Jan. 31st. Pol Ka.

Los Angeles Grange.

I herewith enclose the amount of my subscription for the Rural Press for the ensuing year. Your paper contains much information for the farming community, and if many of the snggestions contained in its columns were heeded and put into practice, more money would be made and saved by the farmers.

I regret that our Grange is in a very lukewarm condition, many of our best members having withdrawn, either formally or informally, during the last year. There are a few of us, however, that intend to stick to the ship as long as she floats, and to carry out, so far as it is possible, the principles of the Grange.

Pomona Grange, No. 1, has hardly been a success so far, and I must say, although a delegate and Overseer of Pomona Grange, I think the District Conncil organizations were mnch better calculated to promote harmony and good feeling in the Order generally. All the officers of the Los Angeles Grange have been installed, except the Chaplain and Gatekeeper,

In regard to our farming operations, we have never had a finer season, thus far, and the prospect is good for the largest crop ever raised in the Los Angeles valley. Our county is rapidly filling up with industrious and active farmers and business men, and we expect soon to have such railroad facilities as will render Los Angeles the most desirable point for location, and the establishment of beautiful homes, to be found even in our highly favored State. I hope to be able to secure you some subscribers soon; shall do so if I can. Very respectfully,

J. Q. A. Stanley, Sec'y.

The Right Kind of a Grange.

Messrs. Editors:—Our Grange, Binghampton, No. 174, though not large, is imbued with the right spirit—most of its members being "rooted and grounded" in the great principles upon which our Order is built—a fraternal regard towards one another, and a lively faith in the sentiments expressed by a good Patron at the opening of a Grange. They also believe in the Grangers' Bank, the Grangers' Business Association, the Grangers' Fire Insurance Co., and the Rural Press.

You will allow me to say right here, (in your private ear), that the Press has improved very much during the last twelve months; and that, among the half-dozen other weekly publications which I receive, it fills a place which no other paper can. Its cheering words from the Granges from every quarter (it is a regular Granger's "class-meeting"), its practical suggestions, honest articles, and happy selections, are just the thing for the farmer's fireside. Its being cut and stitched, "ready for business," is an excellent feature of its "improvement," and sister "Mary Mountain" can now sit "bolt upright" and read to her heart's content, as can the other sisters, and "Williams" too, as to that matter. Wishing you great success, I remain yours, etc.,

Jan. 24th, 1876. A. B.

Merced Grange.

Our Grange celebrated New Year's with a glorious harvest feast, which was attended with a goodly number of happy hearts and smiling faces. The tables were spread and bountifully filled with the many luxuries prepared by our worthy sisters, and everything passed off harmoniously and pleasantly. The participants seem to exercise much of the spirit and ambition of the men of one hundred years ago. Our Grange is in a very prosperous condition. I have never seen more enthusiasm displayed since I became a member of the Patrons of Husbandry than there is here at the present time. Had it not been for the inclemency of the weather, I doubt whether there would have been a vacant seat in our hall, which is the best and most pleasantly situated in the city. It is nicely carpeted and very neatly furnished. After the feast, Worthy Master Elliott again called the Grange to order and rehearsed the secret work of the different degrees, after which came suggestions for the good of the Order. Our District Deputy, H. B. Jolley, favored us with quite a lengthy discourse, which was very interesting and instructive. His example was followed by several worthy brothers. The Grange met on the 15th of January and installed the officers for the ensuing year. The installation ceremonies passed off very pleasantly. I trust we may have a prosperous year for the Order and for the field.

Miss M. E. H., Sec'y.

Installation at North Butte.

Messrs. Editors:—Having previously been invited to install the officers of North Butte Grange, myself, in company with Bro. Joseph Hardy, of Yuba City Grange, visited this Grange on Saturday, January 29th. This Grange holds its meetings at North Butte school house, a large and commodious building. W. M. Spillman called the Grange to order at 11 o'clock A. M., and in a few appropriate remarks stated the object of the meeting and introduced the installing officer, whereupon Past Master Ohleyer, of Yuba City Grange, assisted by Bro. Hardy, installed the newly elected officers in their respective offices. At the conclusion of these ceremonies Bro. Spillman declared a recess of twenty minutes; for what purpose was not very clear to the undersigned, as no tables were in sight, but a lively rush of desks to the center and the appearance of numerous boxes and baskets soon cleared up the mystery, and we were invited to one of the best Grange dinners it has ever been our good fortune to participate in. For cleverness and sociability I will put the brothers and sisters of North Butte Grange against any Grange in the State. Their officers are zealous and efficient in their work and their meetings are always well attended. After the tables were cleared away the fourth degree was conferred on a class of four, two brothers and two sisters.

This Grange is located in the northern part of Sutter county, and is nestled in the lap of the Butte mountains. A more cosy and romantic spot is hard to find. Grain is looking remarkably well, much of it six to eight inches high, while the mountains furnish excellent grazing during the winter and spring.

We accepted the invitation of Bro. Spillman and remained with him over night, thus spending a most pleasant evening with his estimable family in their cosy retreat. Our thanks are hereby tendered them and their Grange for favors shown us. G O.

Installation at Nord Grange.

Messrs. Editors:—We thought to spare the readers of the Press an account of our Christmas tree and installation, but since our pen is in hand we will say that the former was a charming success, and the latter was accomplished last Saturday, 22nd inst., in a snow storm, having been postponed two weeks previous on account of a flood. Many of our members arrived in the "eye of the storm," and showed themselves true Grangers by their pluck.

Our hall being in the hotel, we had the cosy parlors for the installing ceremony, Worthy Deputy Hallet officiating, and a warm dining room for our material feast and flow of sociability.

A learned M. D., (uninitiated,) who sat near the principal carver, sagely remarked as he looked significantly around over the appetizing viands, that he thought he had discovered "why ladies were admitted to membership in the Grange."

We suppose our puny indignation won't amount to much, but we consider it a very unworthy and superficial view of the subject, though we don't say that it isn't worth something to be able thus to tickle the palates of the lords of creation, especially since that is said to be so direct an avenue to their hearts.

Flowers and fruit graced our board, the former rescued from the storm while the little ones were rollicking in the feathery flakes, and trying to save enough to make a snow man, putting on a bold front, if their fingers did jingle, (tingle,) as the little three-year-old said. C. A. C.

Nord, Butte county, Jan. 26th.

Cambria Grange.

Messrs. Editors;—Storm and flood have prevented my visiting the Grangers of our country, as was my intention. I am, however, able to report all hopeful and determined.

As soon as time and weather permits I purpose making a round of all the Granges in the county, and will be pleased to make full report.

I am gratified to find so much valuable instruction in the columns of the Rural devoted to the dairying interest, thus making it as welcome and valnable to the intelligent dairyman or stock raiser as to the farmer.

C. H. Ivins, Conntv Deputy.

Cambria, San Luis Obispo Co., Cal.

South Sutter Grange.

Messrs. Editors:—Although the weather was bad and a considerable amount of rain fell, with a high wind, there was about 40 present, the new officers all answered to their names, excepting Bro. Benton, and were dnly installed on the 22d of January. Bro. Thos. Boyd was not installed as Master, owing to the roads being so bad that the installing officer could not come, and Bro. Thos. Boyd acted as installing officer. After the installation there were speeches from the new officers in their respective turn. The installation was publicly performed. After a short recess the Patrons and friends partook of a bonntiful repast and had a good social time in general.

Yonrs fraternally, Wm Trevethan, Sec'y.

Pleasant Grove, Snttter Co.

Ocean View Grange.

Messrs. Editors:—Although the Ocean View Grange does not nnmber a very large membership, it is in a very flourishing condition. Within the last year we have purchased a large lot, erected a spacious and commodious hall, and set ont a qnantity of ornamental trees. All of which is quite a feature in our village.

H. E. Graves, Sec'y.

School House Station, San Mateo Co., Cal.,

Decisions of the Court of Appeals.

The volume of the official proceedings of the late meeting of the National Grange contains the following decisions which have lately been made by the Conrt of Appeals of the P. of H., the highest authority in the Order. It will be seen that several of these decisions were on appeal from California, and all the decisions have a practical value to Patrons everywhere:

A State Grange should not interfere with the discipline or action of a Subordinate Grange nnless there was manifest injnstice in its action, or some irregnlarity which worked injustice.

That the fact that a witness is nnder fourteen years of age does not necessarily invalidate the testimony.

From California.

A Patron is eligible to office while preferred charges are standing against him.

If a Patron who is ineligible to office at the time of election should be installed in regular form by a proper officer, the installation will not cnre the defect and remove the ineligibility.

When charges have been preferred against a Patron in due form the Grange cannot by vote order such charges dropped or the consideration of them indefinitely postponed.

An installing officer may decline to install officers on the ground of ineligibility alone; but that pending charges does not constitute incligibility.

From Colorado.

That the Master of a State Grange has no authority to snspend from office any officer of a Subordinate Grange except the Master.

From Montana.

That officers of the State Grange who are not Masters of Subordinate Granges and their wives who are Matrons are not entitled to vote or to participate in the discussions in the State Grange.

A vote on each specification is unnecessary and improper, and a vote on the charges is sufficient.

A vote of guilty did not carry with it the grade of punishment; but the Subordinate Grange should by vote decide upon the grade of punishment.

The Master of a State Grange has the undoubted right to forbid the initiation or advancement of a candidate in a Subordinate Grange who is clearly ineligible to membership.

From Wisconsin.

That if any Secretary of a State Grange fails to report for the full number of Subordinate Granges in the State, as shown by the records in the office of the Secretary of the National Grange, the Executive Committee of the National Grange, during the recess of the National Grange, may require the Secretary of the National Grange to fill the blanks in each case with the number as last reported; and in case no report has been made, with the number of charter members.

Dudley W. Adams, President.

Dudley T. Chase, Secretary.

The Right Number.—The number of Vallejo Grange is No. 113, instead of No. 120, as incorrectly printed in our election lists.

Election of Officers.

CAMBRIA GRANGE, No. 25, CAMBRIA, SAN LUIS OBISPO CO.—C. H. Ivins, M.; J. Woods, O.; Mrs. S. Keatzel, L.; M. B. Martin, S.; R. Rigdon, A. S.; J. C. McFerson, C.; L. Blunt, T.; H. Olmstead, Sec'y; B. Ramage, G. K.; Mrs. M. E. Ivins, Ceres; Mrs. K. Scott, Pomona; Mrs. G. M. Blunt, Flora; Mrs. R. Rigdon, L. A. S.

EUREKA GRANGE, No. 66, POMONA, LOS ANGELES COUNTY.—C. Burdick, M.; W. F. Thompson, O.; P. C. Tonner, L.; J. M. Armour, S.; A. A. Green, A. S.; W. C Martin, C.; M. G. Rogers, T.; W. T. Martin, Sec'y; S. Sorby. G. K.; Sister E. J. Rogers, Ceres; Sister A. Burdick, Pomona; Sister N. M. Martin, Flora; Sister M. Tonner, L. A. S.

GEORGIANA GRANGE, No. 122, ISLETON, SACRAMENTO CO.—Election, December 25th: H. F. Smith, M.; F. M. Kittrell, O.; J. B. Allington, L.; P. Hanson, S.; H. Senf, A. S.; J. W. Furguson, C.; J. W. Holt, T.; J. H. Maxwell, Sec'y; J. Pool, G. K.; Mrs. R. F. Davis, Ceres; Miss N. Pool, Pomona; Miss A. Allington, Flora; Mrs. J. B. Allington, L. A. S.; Trustees: P. Gardner, H. F. Smith, J. Pool.

OJAI GRANGE, No. 165, NORDHOFF, VENTURA CO., CAL.—L. O. Sowle, M.; John Larmer, O.; H. N. McLean, S.; G. L. Waters, A. S.; W. Perri, C.; R. Ayres, T.; J. Hobart, Sec'y; John Pinkerton, G. K.; H. J. Dennisson, L.; Mrs. McLean, Ceres; Mrs. A. Sowle, Pomona; Mrs. M. H. Steepleton, Flora; Mrs. J. Larmer, L. A. S.

ROHNERVILLE GRANGE, No. 103, HUMBOLDT CO.—Election, Dec. 18th, 1875: H. S. Case, M.; J. R. Myers, O.; John Quick, L.; A. G. Robinson, S.; M. Perrott, A. S.; Benjamin Campton, T.; S. Strong, Sec'y; J. R. Jordan, G. K.; Sister M. Jameson, Ceres; Sister A. Walker, Pomona; Sister A. Masson, Flora; Sister S. Strong, L. A. S.

SARATOGA GRANGE, No. 118, SARATOGA, SANTA CLARA CO.—Francis Dresser, M.; J. B. Bubb, O.; Willis Morrison, L.; Isaac Bradley, S.; A. Loyst, A. S.; Wm. Reid, C.; Wm. Cox, T.; Jennie M. Farwell, Sec'y; S. Hutchinson, G. K.; Mrs. C. Dresser, Ceres; Jane Cox, Pomona; Mrs. Reid, Flora; Mrs. A. McCall, L. A. S.

SOUTH SUTTER GRANGE, No. 207, PLEASANT GROVE, SUTTER CO.—Election, Dec. 25th: Thos. Boyd, M.; Benton Hudson, O.; Geo. T. Boyd, L.; Geo. W. Beach, S.; Thos. W. Trevethan, A. S.; R. H. McClellan, C.; Homer Sankey, T.; Wm. Trevethan, Sec'y; Thos. Annereau, G. K; M. J. Richardson, Ceres; Mourning Sankey, Pomona; Mary McClellan, Flora; Trusteee: John J. Greenwald, Roger Mahon, John R. McClellan.

STANISLAUS POMONA GRANGE, STANISLAUS CO., CAL.—Election, Feb. 7th: H. W. Brouse, (Ceres Grange) M.; A. S. Fulkerth, (Turlock Grange) O.; C. R. Calender, (Oakdale Grange) L.; J. D. Reyburn, (Salida Grange) S; R. R. Warder, (Waterford Grange) A. S.; S. M. Gallnp, (Waterford Grange) C.; W. L. Fulkerth, (Turlock Grange) T.; V. E. Bangs, (Stanislaus Grange) Sec'y,; J. D. Spencer, (Stanislau sGrange) G. K.; Mrs. Julia Service, (Ceres Grange) Ceres; Mrs. V. E. Bangs, (Stanislaus Grange) Pomona; Mre. M. E. Reyburn, (Salida Grange) Flora; Mrs. L. J. Brouse, (Ceree Orange) L. A. S.

SUNOL GRANGE, No. 163, SUNOL, ALAMEDA CO.—Election, Dec. 25th, 1875: E. M. Carr, M.; B. F. Cooper, O.; Mrs. Jas. Black, L.; D. W. Baker, S.; Jamee Bennett, A. S.; Mrs. Chas. Hadsell, C.; Chae. Duerr, T.; S. W. Millard, Sec'y; A. C. Vandervoort, G. K.; Mrs. D. W. Baker, Ceres; Mrs. G. J. Vandervoort, Pomona; Mrs. Nusbaumer, Flora; Miss Jennie Alexander, L. A. S.

In Memoriam.

E. C. Damon, Secretary of Ferndale Grange, No. 102, sends us the following resolutions adopted at the last meeting. He writes: "Bro. Branstetter was killed on the 29th day of December by a man by the name of John Henley."

WHEREAS, It has pleased our Divine Master to remove from our midst our beloved brother, M. F. BRANSTETTER,

Resolved, That in the death of Bro. BRANSTETTER we have lost an esteemed member of our Order, the community an upright and worthy citizen, and his family a devoted husband and father.

Resolved, That we extend to his family our heartfelt sympathy, and as a token of our respect wear the usual badge of mourning.

Resolved, That a copy of these resolutions be sent to his family, the *West Coast Signal*, *Humboldt Times*, *Weekly Standard* and PACIFIC RURAL PRESS.

G. C. BARBER, J. D. FERRELL, E. C. DAMON, } Com.

J. A. Goodwin, Secretary *pro. tem.*, sends us the following resolutions adopted by Tulare Grange, No. 198, at the meeting held January 15th, 1876:

WHEREAS, Our Divine Master in his all-wise providence has seen fit to remove from our midst, Mrs. LIZZIE WILSON, therefore be it

Resolved, That in the death of Sister WILSON we are reminded of the uncertainty of life and the certainty of death, which may overtake us at any moment.

Resolved, That in the death of Sister WILSON, Tulare Grange has lost a wortby member, her husband a devoted wife, her family a beloved daughter and sister, and the community a kind hearted, amiable woman.

Resolved, That we extend our heartfelt sympathy to the family and friends of our deceased sister.

Resolved, That a copy of these resolutions be spread upon the minutes of this Grange, a copy sent to the family of the deceased, and also to the RURAL PRESS.

JOHN H. HART, J. A. GOODWIN, JULIA E. GOODWIN. } Com.

The Farmers' Mutual Fire Insurance Co.

We have received the following letters, which explain the subject matter of both fully:

EDITORS RURAL PRESS: I would respectfully call your attention to a portion of the enclosed letter, just received from one of our traveling agents, Mr. J. A. Kenney. You will see from the letter referred to that your article of 29th January has created an erroneous impression in the minds of some of our Patrons, and hope you will correct same in this week's issue. We have made *no* change in the *"Mutual"* plan, it is the same as it has always been. It is on the "Flat Policy" or "Cash" plan that we take detached town risks, and the latter branch of the company is entirely separate from the former. Losses on the flat policy plan in *no* way affect the mutual plan.

We will still contine to take none but farm risks on the mutual plan. Yours respectfully,

FERD. K. RULE, Sec'y.

Office of Cal. Farmers' Mut. Fire Ins. Co., No. 38 California St., San Francisco.

SAN BUENAVENTURA, Feb. 5th, 1876.

TO J. D. BLANCHAR, ESQ., *President F. M. Insurance Company*:—This town looks quite thriving. A large number of new buildings have been put up within the last year. I shall start out into the country the first of next week. When I arrived at Carpinteria on my way down, I stopped to insure some parties that had sent to Santa Barbara for me to call and insure them; I found two of the parties that would not insure. They said that they had seen an article in the RURAL PRESS of the 29th of January, which looked as though the two departments of the company were merging into one. If so, they had rather not take their chances in with the detached risks in towns. If you have made any change in the mutual plan about the distances from other buildings, I would like to have you give me full instructions in regard to the change as soon as possible. Yours. truly, J. A. KENNEY.

AGRICULTURAL NOTES.

California.

AMADOR.

WILD PIGEONS.—*Ledger*, Feb. 5: We are told that the region behind Butte mountain, about four miles from Jackson, just now presents an inviting field for the sportsman. Wild pigeons are said to be flitting around that neighborhood in immense numbers. They are, however, very shy, and it is no easy matter to get within gunshot range. Some the crack marksmen of Jackson have visited these hunting grounds during the week, returning laden with game.

BUTTE.

CROP PROSPECTS.—*Record*, Jan. 29: Never in the history of this neighborhood has the outlook for a large harvest been so favorable ae at preeent. The surrounding country is one vaet grain field, and a jack rabbit can hide most anywhere in it. The facee of farmere have lost the worried look worn so long. Businees men are taking heart, and a feeling of coming prosperity pervades the entire community.

CONTRA COSTA.

THE CATHRPILLARS.—*Gazette*, Feb. 5: Our readers will not have forgotten the plague of caterpillars that visited us last epring; and an inspection of their orchard trees at the present time will leave them with no doubt that the plague is to be repeated the coming spring. The glutinous scabe in which larvæ are inclosed are to be found now in great numbers on nearly all the fruit trees, and especially on the apples, so far as we have examined. They will doubtlese also be found to some extent on shrubbery and ornamental treee, and on the evergreen oaks in great abundance. The larvæ scabs, now that the fruit trees aro without foliage, can be more readily discovered and removed than after the treee leave, which will be about the time the eggs begin to hatch out the caterpillare; and the orchardists who can give time now to cleaning off and destroying the egg matrices, will find it less troublesome than to do it after they begin to hatch and the trees are in leaf. If the work is partially done now, and the larger portion of the eggs destroyed, the task of killing the caterpillars later in the season, after the hatching, by burning, the application of kerosene or strong soapsuds, will be all the lighter. We may mention here that the application of strong soapeuds proved quite as effective in killing caterpillars last year ae kerosene, and is attended with no risk of injuring the trees.

EL DORADO.

PROFIT AND LOSS.—*Republican*, Feb. 3: Those who have carefully eetimated the matter assert that the lose to El Dorado connty, in coneequence of the general failure of the fruit crop last seaeon, is between $400,000 and $500,000. Notwithstanding the apparent almost total destruotion of the crop, some 300,000 boxes of fruit have been received at Shingle Springs for shipment. We predict that we shall have one of the best fruit crops ever known here this eeaeon.

LAKE.

SEEDING TIME.—*Democrat*, Feb. 5: Althongh seeding time has come in many counties in California, Lake county, owing to the heavy rains, has by no means commenced seeding for her this year's crop. Some lande already eown give fair indications of a good crop, but most of the eeed put in has suffered from the floods. Neverthelese, a large yield is expected, and farmers are busy preparing to sow, now that indications are favorable for a cessation of rain for a time. The area to be sown this season will greatly exceed that of last year.

DAMAGE TO STOCK.—The late heavy storm has played sad havoc among the stock in the mountains. We are informed that one gentleman in Bachelor valley lost a large number of lambs during the past month, besides several head of cattle. Others have suffered in proportion.

LASSEN.

COMING.—*Advocate*: General N. P. Chipman is about to start from Washington for this coast with a party of men who will view this section of the country with intent to inveet money here.

LOS ANGELES.

CROPS ASSURED.—*Outlook*, Jan. 26: We have had ample rains to secure enormous crops throughout this valley. No doubt the most inveterate advocate of liberal irrigation is now satisfied. If the grasshoppers or some other pests do not visit us it is believed Los Angeles valley will produce the largest crop ever known.

THE FRUIT BELT.—*Gazette*, Jan. 29: The fruit belt is not confined to any particular part of the San Gabriel valley or to Los Angeles county, as many are led to believe. The Rowland ranch on the south, the Dalton on the north and the Mission San Gabriel in the center of the San Gabriel valley abundantly demonstrate that the whole valley is capable of producing the semi-tropical fruits. Anaheim has her groves of as sweet and luscious oranges as the most favored localities of the celebrated "belt" of the San Gabriel valley; and in Orange, Santa Ana, Tustin City and many other places the young semi-tropical fruit trees are making as vigorous a growth and with as little damage by frost as in the "belt."

MARIN.

RARE FRUIT TREES.—*Journal*, Feb. 3: In Mr. Geo. W. Stilwell's yard on Fifth street is a dwarf orange tree, about five feet high, the lower limbs of which droop low with their prodigious weight of golden fruit. On the tree are oranges in every stage of growth, from the blossom to the largest and handsomest orange we ever saw. We had the curiosity to put a tape line around it, and found it measured 13 inches. The tree fills the air with fragrance, and is indeed "a thing of beauty." Near by is a lemon tree, with an equally heavy yield of fruit, ranging from very large ripe lemons to the white blossom. The tender blossoms on both these trees were unharmed by the heavy frosts of two weeks ago. In Mr. Stilwell's yard is a large olive tree, laden with fruit, which has been allowed to ripen on the tree.

MERCED.

TO TRY CARP.—*Argus*, Feb. 5: A new and very lucrative industry is about to be tried here, the propagation of the carp fish in ponds of artesian water. The knowing ones prove by statistics that the water necessary to irrigate an acre of ground will raise 1,000,000 carp, which at a cost of three cents apiece to maintain will bring nearly in the San Francisco market (at three monthe' growth), 25 cents each. They are similar to the gold fish of Japan, and belong to that family of the finny tribe. The opulent and public spirited citizens of San Joaquin valley would do well to examine into this lucrative and beautiful source of food, pleasure and wealth.

GONE TO NEW MEXICO.—*Express*, Feb. 5: Mr. George W. Stoneroad left here with his sheep for New Mexico on last Tuesday. He has between 11,000 and 12,000 head of yonng ewes, which he hopes to drive through to his land in the Territory above mentioned, without incnrring any great loss. He goes the Southern route, and by starting thus early hopes to be able to cross the great Colorado desert before the warm weather begins—sometime in March. Mr. Stoneroad hae undertaken a hazardous journey, but with his experience, forethought, and good bueiness qualifications to lead the way, we entertain but little eerious thought of serioue consequences to occur. We hope the loss resulting to Merced county from the departure of one of her best and most influential citizens, in the person of Mr. Stoneroad, may be to his gain.

MONTEREY.

THE FACTS.—*Democrat*, Feb. 5: The abundance of rain and mildness of the season have greatly stimulated the growth of grain. It is as forward now as it would be in ordinary years at the latter end of March. We have had this week a euccession of warm, bright daye, to the great improvement of the roads, which, on the low grounds, have been almost impassable.

NAPA.

BRANDY.—*Register*, Feb. 5: The St. Helena brandy etill is working night and day, turning out about 150 gallons every 24 hours.

CRANBERRY RAISING.—*Star*, Feb. 5: Mr. Asa Spear has just entered upon what we believe to be a new experiment in these parts, viz: the raising of cranberries; he having some moist land which he thinks is well adapted to that purpose. He has just procured from Milford, Connecticut, 300 roots, 200 of which are of the "Bell" variety, and 100 of the "McRae," and will at once proceed to eet them and give the experiment a practical test.

SANTA BARBARA.

LOMPOC SURE.—*Record*, Jan. 29: We are again indebted to Mr. R. R. MacLeod for the rainfall of the season, up till Thursday morning. His gauge says that ten and one-eighth inches have fallen; quite sufficient, with late ehowers and our abundant mists and fogs, to insure grand crops.

SAN BENITO.

A CARPET FACTORY.—*Enterprise*, Feb. 5: We understand a movement is on foot looking to the establishment in Hollister of a carpet factory. The parties who are at the head of it have the meane and will shortly arrive at a definite conclusion with regard to the enterprise.

SAN BERNARDINO.

FOR THE CENTENNIAL.—A gentleman in San Bernardino will carry to the Centennial a bunch of oranges that number 108, just as they grow to perfection at Riverside, in San Bernardino county.

SAN DIEGO.

HONEY OUTLOOK.—*World*, Jan. 26: A first rate bee man with whom we have conversed, is of opinion that the late rain has been worth an increase of $2 on every colony of bees in the county. We doubt not his estimate is under rather than over the fact, for the rain does not merely insure good and ample feed, but insures increased strength to the bees, giving a reasonable hope and promise of goodly profit in all departments of the business. The Bee Keepers' association of the county should, in time, make better arrangements for the introduction of honey in those sections of the country where it is little known.

THE RAIN.—*Union*, Feb. 3: The keeper of the rain-gauge at Bear valley, between Wolfskill's ranch, and Pala—Mr. S. G. Antes, reports the rainfall for the seaeon as follows: November 2d, inches 2; Nov. 14th to 21st, 1; Nov. 23d to 26th, 1; Dec. 29th, .65; Jan. 3d to 4th, .80; Jan. 6th to 8th, 2; Jan. 20th to 21st, 2; Jan. 23d, .55; Jan. 24th, 1.37; Jan. 27th, .30. Total rainfall, 11.67 inches. The gauge ran over at the plus mark on the 6th of January.

THE PROMISE.—Telegram, Feb. 3: From every part of the county we hear the same good account of the agricultnral outlook. More ground has been seeded to grain than ever before, and the crop will be at least one-third larger than that of any previous year. Planting of fruit trees, too, is going forward everywhere with great success. The bee interest is also largely on the increase, and the honey crop bids fair to double that of last year. All in all, it seems that San Diego county has entered upon the most prosperous year it has ever known.

PROGRESS.—*World*, Feb. 5: We are glad to hear from all parts of the connty that a largely increased acreage of land is being planted this over last year, and that more is likely to be done in all the interests of the county. This is the way to do it.

SAN JOAQUIN.

THE AGRICULTURAL SOCIETY.—Stockton *Independent*, Feb. 5: The Board of Managers of the San Joaquin Valley agricultural society met yesterday at the office of Vice President Arnold. It was decided to hold the next annual fair in this city, commencing on the 26th of September and continning to include the 29th of the same month. Aleo, a committee was appointed to procure the erection, at the society's park, of two windmille and tanks, one near the present horse power pump and one at the half mile post. This improvement, it will be remembered, is in accordance with the recommendation of President Shippee's last annual address.

THE CROP PROSPECT.—The season thns far has been one of the most favorable experienced in California for the farming interests generally. The grain sown before the first heavy rains on snmmer-fallowed land and, in fact nearly all the seed planted before Christmas promiees well. In a few of the lower portions of the black land embraced with a distance of six or eight miles from Stockton, seed has to some extent been damaged, and eome killed outright by water, but the area thus injured, or "drowned out" is quite limited, while throughout San Joaquin valley generally the farmere are jubilant over the present promise of an abundant harvest. Many farmers have only within the past week finished plowing, while others have etill all their available laboring force engaged daily in that work. We are told that in eome districts plows will be kept in operation the greater part of the present month. The breadth already sown with wheat is much greater than that of any previous year, and ehould the present promise be fulfilled, the yield will far exceed that of any former harvest. In calculating the results, however, the fact that the weather, from the middle of March until the ripening season, almost wholly determines the farming fortunee of the year, cannot be ignored. Almost every winter has been promising, but it has unfortunately happened too frequently that the bright prospects of the rainy season have been blasted by withering epring winds. Past experience has conclueively shown that the most effectual moans, other than irrigation, of resisting the damaging effects of these winds, is eummer fallowing and thorough preparation of the soil. This mode of tillage is constantly gaining in popular favor, and wore it universally adopted as the rule of practice, we believe that wheat raising would be far loss precarious than it has hitherto proved. We nnderstand that the area of eummer-fallowed land is more extensive this year than heretofore, hence we may with safety, even in the event of the season proving no more favorable than the spring of 1875, count upon a fair harveet.

SANTA CRUZ.

APRICOT WOOD FOR FUEL.—*Sentinel*, Feb. 5: Eight apricot treos, recently cut from the lot of Jeesic Cope, purchased from F. A. Hihn, made abont five cords of firewood. One of the number measured two feet in diameter. They were planted either 18 or 20 years ago. The enormous growth and vigor of theee treee proves the strength and adaptability of the eoil for fruit culturo.

SOLANO.

CROPS.—*Times*, Feb. 2: The farmer is taking advantage of this weather to add the finishing touches to his crops. Young grain is looking remarkably fine hereabouts.

(Continued on Page 108.)

To Thee.

[Written for the PRESS by T. W.]

The fragrant morn, with dewy wings,
Rose from the glowing east;
The dead night fled across the world,
And all its shadows ceased:
Each winking star, with mirthful eye,
Withdrew its glinting ray,
And the yellow moon turned pearly pale,
At the resurrected day.

The mist rolled up from off the sea
In volumes soft and grand,
And sailed in cirrous masses free,
Far o'er the verdant land.
The air was full of grateful songs,
Which fell upon the ear
Like joyful melody which throngs
A vocal atmosphere.

With springing step my willing feet
Forebore within to stay,
But gaily wandered forth to greet
The morning of the day.
The dew flashed o'er the rich *parterre*,
And on the emerald sward;
And gleamed and sparkled everywhere—
The diamonds of the Lord.

A joyful thrill passed through my heart,
Life seemed so fresh and fair,
And all things uttered, "God thou art,"
For nature was at prayer.
But looking up, sweet friend, I saw,
What filled my soul with pain;
There stood my grand abutilon,
And swung its bells of flame.

Its chalice held no sparkling dew;
Intent on things below,
It opened not its heart to view
The heaven which graced it so.
And so in royal discontent,
It swayed its golden bells,
But ever with their music blent,
A moaning sinks and swells.

While at its foot, the daisy's eye
Looks up to heaven for bliss,
And nightly from His glittering sky,
God sends a dewy kiss:
And thus it is, His precious grace
Falls free for every one;
Who opens wide his heart, receives
His dew, His rain, His sun.

Farmers' Wives and Kitchen Conveniences.

MESSRS. EDITORS:—Those who have traveled much in California, particularly in the Sacramento and San Joaquin valleys, doubtless remember seeing hundreds of houses, from the small redwood cabin of one or two rooms, as well as those of larger dimensions, without a tree, or vine or bit of shrubbery around them to beautify and give them a look of home comfort, or protect them from the scorching rays of a noonday sun, or the keen searching winds that sometimes blow, even in California, which we are all ready to affirm has "the finest climate in the world."

When traveling in this State for a prominent sewing machine agency, I had ample opportunities for observing what disadvantages a great proportion of farmers' wives on the Pacific coast labored under in performing household duties.

Living in small redwood houses that neither keep out heat nor cold, crowded for room, water inconvenient, often being drawn by a windlass from a deep well, or worse still, by a rope and bucket, or carried a long way from a spring, from which it had to be dipped, a quart or two at a time, into buckets. Sometimes I would see the men draw the water in a barrel a long way from some distant stream or spring, and as this was all extra work for them they were apt to give some gentle hints that it was necessary for the women to use the water sparingly.

At the same time the women were doing their washing, ironing, cooking and cleaning by a hot stove, and a blazing sun pouring its fierce rays on to the thin redwood shake roof over their heads, and sitting down in these heated rooms, when weary, to rest or eat their meals, swarms of flies pouring in, attracted by the smell of the food, and if the poultry and pigs were not properly confined, very likely you notice some of them looking for board, or on a prospecting tour.

Shadrach, Meshach and Abednego, who, we read, walked and talked in a fiery furnace, might appreciate the fiery ordeal through which women pass, who cook for a lot of hearty men and usually more or less children under such blazing conditions, besides doing the balance of the work necessary to keep their houses and families comfortable and decently clean.

Many a time have I seen a woman's face look like a boiled lobster from standing over a hot stove cooking dinner for a score of persons, her blood more than at fever heat, when she sat down at her table, often not to eat, but have to fan herself, for she felt so uncomfortable she could not eat with relish the food she had cooked.

A woman must be little less than a salamander to work in such heated rooms, and a man working in mines on the Comstock lode on the lower levels, in an atmosphere only a trifle hotter, gets $4 per diem for a few hours' work.

For some reason men are very apt to think a woman's work is light and easy, and it matters little whether her kitchen is so arranged and furnished that she can do her work in comfort and to the best advantage, but it is of vital importance that they should have all the new improvements in reapers, harrows, gang plows, sulky rakes, etc., all arranged so they can ride when at work, instead of walking.

A large proportion of farmers' wives have but little time for reading, recreation and social enjoyment, and that many of them, early in life, lose a large share of their good looks, youthful vivacity and attractiveness, is not at all surprising. They are worked just as they work their horses, up to the full limit of their strength and endurance, and oftentimes considerably beyond; not that I think farmers are any less kind hearted, or have the least thought of being more unkind to their wives than any other class of men; it is sheer thoughtlessness. The Grangers made a move in the right direction when they admitted their wives and daughters into their councils, elected them officers as well as members and made them co-workers in their body politic. I say God speed! to anything that elevates woman, and helps her out of the rut of constant drudgery, puts new ideas into her mind, and is a new incentive to intellectual improvement. It is a step ahead, for which one woman at least is most sincerely thankful.

My readers will pardon this wandering away from my subject; my pen is subject to tantrums, is rather erratic, and like the woman who wields it, has a mind of its own, and is bound to ventilate its ideas on the woman question.

A Summer Kitchen.

My object in writing this letter for the RURAL PRESS was to give a description of an outside kitchen or work-room I once saw in Illinois, that combined comfort, beauty, good ventilation and convenience at a trifling expense, and such as might be attached to farm houses in California, and be a wonderful addition to the comfort and enjoyment of the whole household, more especially to the feminine portion, as well as adding greatly to the outside appearance of the farmers' home; an improvement at once ornamental, useful and inexpensive.

This kitchen arbor, (as I named it) was built shed fashion in the angle of a house constructed in the shape of an L., and was about 18x20 feet in area. The sides were made by driving rough posts into the ground about four feet apart, and nine feet above the ground at right angles with the corners of the house. The roof was made of small trees hewed into shape and nailed like rafters on to the top of the posts, the opposite ends on to a thick strip of board nailed on to the main part of the house under the eaves. Across these were nailed narrow strips about nine inches apart to form a trellis. At the foot of each post was planted a grape vine that had not been pruned closely. As the object was to get foliage for shade the branches were all tied and trained to run up the posts and cover the trellis, and the second year they received such good care they made a very good shade from the heat of the sun and at the time I saw it, it was nicely covered by its grape leaf shingles, and made a nice cozy spot, where, in fair weather, the farmer's wife did a large share of her house work.

There was a large cupboard and table for ironing and cooking purposes fastened against the main part of the building. On the side next the kitchen was a platform about five feet wide, built with the house, and on this stood, next to the door, a wash bench, next a portable sink, and at the farther end an old stove not past use although somewhat rusty, and griddles broken or warped. On one of the open sides, near the posts, was a long, narrow, common table and two benches the same length, which the farmer had made himself, and during haying and harvesting, (except rainy days) the harvesters and the family ate their meals out here, finding it more pleasant, and it seemed more picnic style to be eating with a green canopy over your head, and at times, as the wind tossed the leaves up, a beam of sunshine would gleam in like a passing smile on the face of a person with a pure heart and clean conscience.

Then the air was so different from the atmosphere of a heated kitchen, reeking with smells of boiling, broiling, and baking cabbages, onions, etc. Oh, my sisters and brothers—all children of one Heavenly Father and inheritors of numerous blessings—when will you learn the gospel of sweet pure air, of sunshine, of the healthy magnetism of Mother Earth, and healthful conditions of body and mind, and live nearer to nature?

The lady who was the industrious worker in this model summer kitchen told me that during the extreme hot weather she set her bread to rise over night and rose as early as four o'clock A. M., molded her bread, made cakes and pies for her large family, and, building a fire in both stoves, she had all her baking done and breakfast cleared away by seven o'clock and had ample time, after doing her dairy work for six cows, to sit down and rest before it was time to prepare for dinner.

All the washing, ironing, churning, dish-washing and preparing food was done under this green awning, the grapes blossomed and matured under her watchful eye; the humming birds, darting around among the flower beds, often made brief calls; and many other birds grew to be sociable and neighborly, (as there were no designing, treacherous cats allowed around the house, and the children were taught to never molest the birds,) and often hopped in to pick up the crumbs scattered for their benefit, and chirping their good mornings and good byes; sometimes alighting on the vines and doubtless appreciating the blessing of a full stomach and gentle treatment, they gave a free concert to an admiring audience.

If this idea of a summer kitchen meets the approbation of the California farmers' wives, I trust that some, at least, will profit by my suggestions.

A few redwood posts and some long shakes, from six to a dozen grape roots, according to the size of the shelter you propose building, a few pounds of nails, is a trifling expense, and the time required to set the posts and put up the trellis will take no more time and require no more mechanical skill than to build a common rough pig pen. Surely a good wife's comfort and health is worth more than a whole drove of pigs; and I am no prophetess if the masculine portion of the family do not learn the value of this sylvan retreat for eating and resting during the heats of summer.

There would be a temporary roof needed till the vines got well started, but give particular attention to preparing the soil when you plant the grape root; give it generous cultivation, cut away the lateral shoots, leaving only two or three perpendicular shoots, and tie those to the post and they will make a prodigious growth in one year in most sections of California.

Then only think of how much it adds to the general appearance of your home to see this green arbor attached to your dwelling, especially during the latter part of summer and fall months, after the grass is dried up and the dust is blowing. I think the sight of such a pleasant addition to a little redwood house in some of the parched interior valleys would seem like an oasis in the desert, and I have seen the time often, when I would have hailed such a welcome shade from the scorching rays of the sun.

Would it not be well, if instead of thinking so much about increasing the acreage of land cultivated, to pay a little attention to beautifying our homes *now*, and not wait to get rich first. You are swindling *yourselves* when you neglect anything for your comfort and enjoyment every day you live, and do without anything that is labor saving, that promotes health, cultivates a taste for the beautiful, or in any way develops you or your children physically, morally or intellectually.

Do not work and toil, and deprive yourself of pleasure for by and by, recollect the truthful lesson in those lines of Burns', "The present moment is our own, the next we never saw." I believe in industry, economy, and providing for old age and a time of sickness, but not in sacrificing continually the present for the future; this accumulating property at the expense of home comforts and present happiness, is an absolute sin. Agar's prayer, "Oh Lord, give me neither poverty nor riches," was full of wisdom, and if I had been there I would have shouted amen.

M. A. SHELDON.

WHAT CONSTITUTES A FARMER.—The following extract we clip from a very interesting address delivered by Major William J. Sykes, in Brownsville, Tenn.: "To be a perfect farmer, a man should combine reading, observation and practice. A man may work in the fields all his life and be a poor farmer. We should gain knowledge by reading and study, and also by what we see around us, and then this knowledge must be put into practice. Our views, if they will not stand the test of actual experiments, are worthless. All sound theory is based upon practice, and all sensible practice is the result of well grounded information, whether learned by our own observation, or from the experience of others. That theory which will not stand the test of experience is worthless, and that practice which is not based upon sound theory is equally worthless."

A BEAUTY SOCIETY.—Mr. George Dawson, in a recent lecture at Birmingham, said: "The office of a man's house was not only to give shelter, food and meat, but also to surround his children with those fair sights and sounds by which the sense of beauty might be developed. There were houses in that town in which not a poem was read nor a song sung throughout the year, and yet people wondered why their children were vulgar. The beauty of towns was one of the most neglected duties and one of the most deserving. If a town was beautiful people took pride in it, liked to live in it, and were sorry to leave it. We need a new society in every town, to be called 'The Society for Promoting Beauty.'"

YOUNG ladies can now be seen oiling the gate hinges. They don't do it from any feeling of love for the gate; they do it to prevent the hinges from "singing" when the family is wrapped in slumber.

AN observant old lady says that "no other living thing can go as slow as a boy on an errand."

FOR what port is a man generally bound during courtship? Bound to Havre (have her).

SOME men are as grateful for kind deeds as the sea is when you fling into it a cup of water.

Social Fallacies.

What a fallacious doctrine of good health is that which leads a person to rise from bed and plunge into ice water every morning, then scrub all the skin off with a horse-hair brush or a coarse board towel; sit down to a breakfast of oatmeal sawdust; dine off a tablespoonful of wheat and two berries, and make a supper on catnip tea; then be put through a Russian bath of five hundred degrees; sleep under an open window when the thermometer is at zero; wear long hair; dress the women in pantaloons; make all our property over to them; then sit down in the kitchen corner and nurse the baby, and when it is asleep, help wash up the tea things, and go to bed at nine o'clock to be "out of the way." What will become of us men? Surely we have fallen on evil times. A better and truer mode of life is to have plenty of everything that is good to eat and drink, which imparts nourishment and strength, and as much of it as you want. The idea of getting up from the table hungry is unnatural, absurd, and hurtful—quite as much so as getting up in the morning before your sleep is out, on the mischievous principle that "early to rise makes a man healthy, wealthy, and wise." Early rising, in civilized society, always tends to shorten life. Early rising of itself never did anybody any good. Many a farmer's boy has been made an invalid for life by being made to get up at daylight, before his sleep was out. Many a young girl has been stunted in body and mind and constitution by being made to get up before the system has had its full rest. All who are growing, all who work hard, and all weakly persons should not get up until they feel as if they would be very much more comfortable to get up than to remain in bed; that is the only true measure of sufficiency of rest and slumber. Any one who gets up in the morning feeling as if he "would give anything in the world" to remain in bed a while longer, does violence to his own nature, and will always suffer from it—not immediately, it may be, but certainly in later years, by the cumulative ill effects of the most unwise practice. In any given case, the person who gets up in the morning before he is fully rested, will lack just that much of the energy requisite for the day's pursuit.

THE PROFITS OF SEWING MACHINES.—The other day I read of the death of a man who had made fifteen millions of dollars out of a patent in sewing machines. Sewing machines that might be sold for $15 bring $60 because of the patent. Out of the toil of sewing women, out of their weary days and nights, this man has accumulated this colossal fortune. Well, having made it, how much he might have done with it! Here are such institutions as the hospital for women and children, giving comfort and health to hundreds every year. A hundred thousand dollars given to that would have caused so many hearts to leap with joy; would have put it on a safe foundation; paid its debts; given it many free beds. Through all time sick persons would have blessed his name. He might have given it to such institutions as the Young Men's Christian Union, saving young men from the perils of city life, making useful citizens out of those who might otherwise go to ruin. He might have built a village of cheap, comfortable homes for working people near all the great cities of the country. He might have founded libraries, endowed colleges, set up industrial institutions, and had the blessedness of being a source of light, life, peace, comfort to thousands. Instead of which he married and divorced five wives, wasted this vast income on his own licentious pleasures, lived the life of a brute, and died unlamented, leaving his money to his children, to make them, very possibly, as bad as he was himself. He was simply a fool, that was all. Instead of being followed to the grave by the grateful tears and blessings of thousands, he dropped stupidly, unlamented, into a fool's grave.—*Clark.*

THIS world is not made for a tomb, but a garden. You are to be a seed, not a death. Plant yourself, and you will sprout. Bury yourself and you can only decay. For a dead opportunity there is no resurrection. The only enjoyment, the only use to be attained in this world, must be attained on the wing. Each day brings its own happiness, its own benefits; but it has none to spare. What escapes to-day is escaped forever. To-morrow has no overflow to atone for the lost yesterdays.

THEY have a queer way of quieting title to land in dispute in Hindostan. Two holes are dug in the contested premises, in each of which the lawyers on either side put a leg, which remains there until one of them is tired, or complains of being stung with insects, in which case his client is defeated. In this country it is the client, not the lawyer, who "puts his foot in it."

NEW IDEAS IN PREMIUMS.—Fancy premiums at Eaton county (Michigan,) fair: To Miss Emma Robb, for the best sample of mending, $5. To Mrs. Viola Helms, for the longest hair (three feet nine inches), $5. To the woman the longest without a new dress, Miss Fuller, $10. For the prettiest baby under three years of age, Mrs. Shuler, $5.

PHILOSOPHICAL.—A philosopher being asked what was the first thing necessary toward winning the love of a woman, answered, "an opportunity."

The Sorrows of "Mourning."

Writing of reforms in mourning, a contributor to the *Home Journal* says: To the poor creature, racked in every nerve with mental anguish, we forhid out-door exercise or the distraction of society or of mental amusements. By society we do not mean halls and parties. The mourner that would crave such amusements would be the heing least in need of care or attention. We would designate hy that term only the companionship of the congenial few. Next, we enjoin upon her, no matter how heavy the tax upon a slender purse may he, a complete discarding of her wardrobe. We bid her husy her distracted brain with pelisses and folds, with crape and bombazine. Over the eyes, half blinded with long vigils and hurning tears, we hang a thick fold of ill-odored and almost impenetrable crape. What matter if her eyes he irreparahly injured? To go without that veil would he to argue disrespect to the he'oved dead. And when we have made her surroundings as gloomy as possible, we enjoin upon her to busy her hrain with a thousand trivial details of the etiquette of mourning. Having thus done all that is possible to aggravate the evils of her condition, we,—that is, fashion and etiquette—may leave her to herself, to wear away her woe as hest she may, in a house deprived of air and light, stifled in ill-smelling, dusky garments, and shut out from everything that could bring the disturbed hrain one moment's relief from all-corroding thought. "If I could only go the opera," once said a lady who was nearly driven mad hy the loss of a favorite child, "I might perhaps stop tbinking for a moment." If she had done so, her long years of maternal tenderness, her weeks of patient watching hy the sufferer's bed, her paling cheek and whitening hair would have been set as naught by a censorious world, and she would have heen dubbed the most heartless of mothers; and yet one would almost as soon think of refusing a criminal on the rack a draft of water as denying to such a poor, tortured soul any distraction that it craved. But the laws of fashion and etiquette were infrangible. And why is it that the Americans, who possess as much common sense as any nation on the face of the globe, seem to have so little in regard to this cruel and absurd custom of mourning? Why is it that our social laws prescribe a degree of woe and wearinoss to the mourner unknown to any other people? What necessary connection is there between a breaking heart and much bombazine, a pair of tear-blinded eyes and a blinding crape veil? Will the common sense of American women never come to the rescue?

Build up a Homestead.

The feeling that you are settled and fixed will induce you to work to improve your farms, to plant orchards, to set out shade trees, to enclose pastures, to build comfortable outhouses, and each successive improvement is a hond to bind you still closer to your homes. This will bring contentment in the family. Your wives and daughters will fall in love with the country, your sons will love home better than grog shops, and prefer farming to measuring tape or professional loafing, and you will be happy in seeing the contented and cheerful faces of your families. Make your homo beautiful, convenient, and pleasant, and your children will love it above all other places; they will leave it with regret, think of it with fondness, come back to it joyfully, seek their chief happiness around their home fireside.

Women and children need more than meat, hread, and raiment; more than acres of corn and cotton spread out all around them. Their love for the beautiful must be satisfied. Their tastes must he cultivated; their sensibilities humored, not shocked. To accomplished this good end, home must he made lovely, conveniences multiplied, comforts provided, and cheerfulness fostered. There must he both sunshine and shade, luscious fruits and fragrant flowers, as well as corn and cotton. The mind and heart as well as the fields must he cultivated; and then intelligence and contentment will he the rule instead of the exception. Stick to, improve, and heautify your homesteads, for with this good work comes contentment.—*Ex.*

Nil Desperandum.—A man who acquires a hahit of giving way to depression is on the road to ruin. When trouhle comes upon him, instead of rousing his energies to combat it, he weakens, his judgment becomes obscured, and he sinks in the slough of despair. And if anyhody pulls him out hy main force and places him safe on solid ground, he stands there dejected and discouraged, and is pretty sure to waste the means of help which have heen given him. How different it is with the man who takes a cheery view of life even at its worst, and faces every ill with unyielding pluck! He may he swept away with an overwhelming tide of misfortune, but he bravely struggles for the shore, and is ever ready to make the most of the help that may be given him. A cheerful, hopeful, courageous disposition is an invaluahle trait of character, and should be assiduously cultivated.

Enterprise.—Now, here's enterprise for you! A New Haven woman recently went abroad to hring back the remains of her husband. She is now on her way home with two husbands—one living and the other dead. It is thought she will hury the dead one and keep the other. And this is what we call "killing two birds with one stone."

Young Folks' Column.

Washing the Clothes.

This is the way we wash the clothes:
See the dirt and smoke and clay!
Through and through the water flows,
Takes and drops them far away.

This is the way we bleach the clothes:
Lay them out upon the green;
Through and through the sunshine goes,
Makes them white as well as clean.

This is the way we dry the clothes:
Hang them on the bushes about;
Through and through the soft wind blows,
Draws and drives the wetness out.

Water, sun, and windy air,
Make the clothes all clean and sweet;
Lay them now in lavender,
For the Sunday, folded neat.

Daniel Webster to His Son.

The following letter, written by Daniel Webster to his son, should be read and re-read hy every boy in the land. It was dated at Washington, June 23d, 1834:

My Dear Son:—Fletcher wrote me from Exeter the next day after your arrival and informed me that you had heen so fortunate as to be received at Col. Chadwick's, and was commencing your studies. I am glad you are so well situated, and trust that you will make progress in your studies. You are at a most important period of life, my dear son, soon growing up to he a young man and a hoy no longer, and I feel great anxiety for your success. I heseech you to he attentive to all your duties and to fulfill every obligation with cheerfulness and punctuality. Above all remember your moral and religious concerns. Be consiant at church and prayer and every appointment for worship. There can he no solid character and no true happiness which are not founded on a sense of religious duty. Avoid all evil company and every temptation, and consider that you have now left your father's house and gone forth to improve your own character and prepare your mind for the part you are to act in life. All that can be done for you hy others will amount to nothing unless you do much for yourself. Cherish all the good counsel which your dear mother used to give you, and let those of us who are yet alive have the pleasure of seeing you come forward as one who gives promise of virtue, usefulness and distinction. I fervently commend you to the hlessing of our heavenly Father. Your affectionate father,

Daniel Webster.

The Magic of Silence.

You have often heard, my dear little readers, "it takes two to make a quarrel." Do you believe it? I'll tell you how one of my little friends managed. Dolly never came to see Marjorie that there was not a quarrel. Marjorie tried to speak gently, but no matter how hard she tried, Dolly finally made her so angry that she soon would speak sharp words too. "Oh, what shall I do?" cried poor little Marjorie. "Suppose you try this plan," said her mamma; "The next time Dolly comes in, seat yourself in front of the fire and take the tongs in your hand. Whenever a sharp word comes from Dolly, gently snap the tongs without speaking a word." Soon afterward in marched Dolly to see her little friend. It was not a quarter of an hour before Dolly's temper was ruffled, and her voice raised, and as usual she began to find fault and scold. Marjorie fled to the hearth and seized the tongs, snapping them gently. More angry words from Dolly. Snap went the tongs. More still. Snap. "Why don't you speak?" screamed Dolly in a fury. Snap went the tongs. "Speak!" said she. Snap was the only answer. "I'll never, never come again, never!" cried Dolly. Away she went. Did she keep her promise? No, indeed. She came the next day, but seeing Marjorie run for the tongs, she solemnly said if she would only let them alone, they would quarrel no more forever and ever.

An "Awful" Story.

There was once an awful little girl who had an awful way of saying "awful" to everything. She lived in an awful house, in an awful street, in an awful village, which was an awful distance from every other awful place. She went to an awful school, where she had an awful teacher, who gave her awful lessons out of awful hooks. Every day she was so awful hungry that she ate an awful amount of food, so that she looked awful healthy. Her hat was awful small and her feet were awful large. She went to an awful church, and her minister was an awful preacher. When she took an awful walk she climbed awful hills, and when she got awful tired she sat down under an awful tree to rest herself. In summer she found the weather awful hot, and in winter awful cold. When it didn't rain there was an awful drouth, and when the awful drouth was over there was an awful rain. So that this awful girl was all the time in an awful state, and if she doesn't get over saying "awful" about everything, I am afraid she will by-and-by come to an awful end.

Good Health.

Typhoid or Remittent Fever.

Messrs. Editors:—There has been a good deal of sickness in our county during the last six months. In different localities different causes have been assigned; hy some the drouth of the past season has heen made the scapegoat.

Among children a fever which has heen misnamed "typhoid," and for which "remittent" would be a more proper designation, has caused some mortality. As cases are still occurring, I thought I would mention in your columns my own experience, which may he of use to some anxious mother, distant from able medical advice.

In the fever which attacked my own three little ones there were two or three febrile paroxysms and remissions during the 24 hours. The paroxysm at midnight was usually the worst, head hot and throhhing, hody quivering and shuddering, and starting. Perhaps some slight disturhance of the hrain, but not enough to constitute "typhoid" fever; drowsiness, hut not sound sleep; disinclination for food, but considerable thirst. When the paroxysm had passed the hody returned to nearly its normal temperature.

The treatment which acted "like a charm" on my little ones was the administering of 20 grains of cream of tartar, dissolved in a tablespoonful of hoiling water, to which a little sugar was added to make it more palatable. For a drink "Imperial" was used; it is made as follows: scald a jug, put in a quarter ounce of cream of tartar, and pour thereon one quart of boiling water, adding a little lemon peel, or essence of lemon, and sugar to make it nice. The child may drink freely of this, hut must be almost starved as regards solid food, until the fever has almost or quite gone.

It is most distressing to see a child's flesh waste away; one's heart aches to give it food, but while the fever is raging, giving food is merely feeding the flames, and usually the child's stomach revolts from any food proffered.

Keep the patient warmly clothed and out of "drafts" of air. If the child is "teething," lancing the gums will probably be beneficial.

Cream of tartar is both diuretic and purgative, and if the first dose produces a sufficient result, in each way, before the expiration of 24 hours, it need not he repeated; if it has not been efficacious a second dose may he tried. Take care that the medicine has not lost its virtue from long keeping.

Possibly so well known and common a drug may he discredited under its usual homely name. If so, you can call at the drug store for bi-tartrate of potash, or according to the new chemical, nomenclature, "potassic bi-tartrate" and use that as you would our old familiar friend, "cream of tartar."

It is astonishing, Messrs. Editors, how potent a few "long tailed" words are sometimes. I once heard of an old lady, who had heen sitting undor some pet preacher, relating her experience of his discourse, as follows: "Ah! my dear, it was a wonderful sermon; he used that blessed word 'Mesopotamia' three times." Similarly some sick folks appear to think that a prescription a yard long is more likely to suit their disease than a simple remedy.

A physician in a neighhoring town, who is notable for his common sense treatment of diseases and his low charges, once told me that he had heen looking over the files of old prescriptions in a drug store, and had found combinations of six or seven different drugs in one mixture. What the prescriber expected to be the action, or re-action, or mal-action, of those drugs in the miserable patient's stomach, was heyond the flight of my friend's imagination to picture.

I think I must write you a paper on "Physic for Farmers." One of your late editors asked me once to write an account of the epizootic and its treatment. I had had no experience in the disease then; but I presume the epidemics to which children are liable are equally worthy of attention in your columns.

Carmel Valley, Monterey. Edw. Berwick.

The Walking Cure.

He has passed Atlanta, Ga., and gone to Topeka, Kansas—De Mahler—a man who has traveled around the world and all over it on foot. He walks for pleasure. Sometimes a wagoner on the road accosts him with "Stranger, want a lift?" He always replies, "No; rather walk," and some miles on passes the home of the wagoner, who hy this time has his wife and children out to look at the man who had rather walk than ride. De Mahler goes trudging on, like the wandering Jew. He has put 40,000 miles behind him since 1862, and has acquired such a momentum now that he can't stop. He must walk to be happy. Of course he stops sometimes for rest and refreshment and sleep, but 'tis only a halt. An Atlanta editor took De Mahler to his house and got some particulars of his walks in life out of him.

De Mahler is a Virginian. He has estates that yield him such an income as enables him to go where he pleases and enjoy himself in his own way. He was wounded in the heginning of our war, and when his wounds healed he was hent nearly double and was totally unahle to walk. He was rolled up almost like that being which turns itself into a ball and wheels from place to place. He went to Paris to get straightened out. The surgeons operated upon him; hut, after a fair trial, they couldn't make his head and feet stay at their respective ends of the man. At length they told him that nothing could effectually cure him but walking. He resolved to try it. He told his doctor that he was going to walk out of Paris and leave France on foot. His doctor told him he was crazy. He, however, commenced the journey, and made only 104 yards from his lodgings the first day, with the aid of a stick. The doctor tended him two weeks on his trip, that is, until he got out of Paris. He had then hegun to improve, and was filled with a glorious hope. He put his whole soul into his walk. In a month he was on the sunny slopes of the Pyrenees and had begun to straighten up like a man. He walked on, and on, and on. At length he was entirely cured and strode with a firm tread. Thus he walked along the world and across it, and became intensely interested in his travels. He sailed across the seas, hut walked the decks of vessels in order to keep his foot in. On land he seems to walk as naturally as the winds blow and the streams flow, and now he can't stop. He makes pencil sketches of the best scenes and remembers every place he has heen in and the name of somebody he met and talked to. He is thoroughly cured of his war wounds, hut many lazy people might think that the cure is worse than the original infliction.

Domestic Economy.

Useful Recipes.

Yeast that will Keep Two Months.

Pare three or four medium sized potatoes and boil till perfectly soft; boil a handful of hops in a separate dish. Mash the potatoes, strain the hop water, and put in with a large tablespoonful of salt, and two tahlespoonfuls of sugar. When nearly cold add half a cup of home-made yeast or two tablespoonfuls of brewers' yeast. Put in hottles or a stone jar, and set in a cool place. Half a cup will raise a large loaf.

Graham Pancakes.

One pint of sour milk, one teaspoonful of soda, one teaspoonful of salt; thicken with Graham flour. Let the batter stand 20 or 30 minutes before haking.

Another very good way is to mix a batter at night, with warm water and yeast, the same as for huckwheat, and in the morning it will he light and ready to bake.

Pumpkin or Squash Pudding.

Prepare the same as for pies, and bake in a pudding dish without crust. A good recipe is the following: One cup of stewed pumpkins or squash, one quart of milk, three eggs, a little salt, sugar to sweeten to taste; flavor with ginger, nutmeg or cinnamon; put in a pudding dish, and bake ahout an hour in a hot oven.

Rice Pudding.

One cup of boiled rice, three pints of sweet milk, three eggs, one cup of sugar; flavor with nutmeg or lemon, and hake from half an hour to an hour.

Indian Meal Pudding.

Scald three pints of sweet milk, and thicken with two-thirds of a cup of corn meal; when nearly cold add three eggs, two-thirds cup of molasses or sugar, one teaspoonful of salt; flavor to taste; if wished, add a piece of butter the size of a hickory nut. Bake slowly from an hour and a half to two hours. Serve hot, with or without sauce.

Sponge Cake.

Three eggs beaten very light, one and a half cups of sugar, two cups of flour, one half cup of cold water, half teaspoon of soda, one teaspoon of cream tartar, half teaspoon of salt; flavor with lemon.

Ginger Cake Wilhout Eggs.

One-half cup of sour milk, half cup of sour cream, one small teaspoon of soda, one good teaspoon of salt, two-thirds cup of molasses, one good teaspoon of ginger; or, take one cup of sour milk, and instead of cream a piece of butter the size of an egg. L.

Orange Cake.—One cup of powered sugar, half cup of butter, three eggs, two cups of flour, half cup of sweet milk, half teaspoonful of soda, one teaspoonful cream of tartar. Rub the sugar and butter together to a cream, heat the yolks and whites of the eggs separately. Bake in jolly tins. Squeoze the juice and grate the rind of one orango, and powdered sugar enough to make it stiff enough so that you can spread it between the layors of cake; also add the white of ono egg beaten to a stiff froth. This will generally make enough to spread hetwoen the four layers of cako and over the top.

Sponge Cake.—Six eggs; the weight of six eggs in sugar, and the weight of four in flour, with a lemon extract, or a little grated lemon peel; a little salt, and a spoonful of baking powder.

Rye Bread is made like wheat, with one exception—the loaves are mado quite soft. As little flour as possible is used in molding.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Prompt Subscriptions.

We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO

Saturday, February 12, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Agriculture at the Capital: The Perils of the Seas; What Our Readers Think, 95. The Week; Potatoes; Cost of Wheat in Minnesota; Frost in Florida; Beet Sugar, 104. The Revival of the State Geological Survey; Sub-Soiling, 105. The Debris Question; A Uniform System of Reclamation; Patents and Inventions, 108.

ILLUSTRATIONS.—At the Mercy of the Waters, 97. Johnson's Subsoiler, 105.

CORRESPONDENCE. — Tree Planting, Farm Notes, Etc.; The Parks Dam; Practical Questions; Granite Hill, El Dorado Co.; Progress in Fresno; Travels about Santa Rosa; Winter in Mendocino; Idaho Fat Cattle, 98.

HORTICULTURE.—Hints on Orchard Culture, 99.

BEES.—Bee Keepers, 99.

THE DAIRY.—Questions in Setting Milk; The Grasses, 99.

PATRONS OF HUSBANDRY.—Organization of Stanislaus Pomona Grange; From the Granges; Decisions of the Court of Appeals, 100. Election of Officers; In Memoriam, 101.

AGRICULTURAL NOTES from various counties in California and Arizona, 101-8.

HOME CIRCLE.—To Thee (Poetry); Farmers' Wives and Kitchen Conveniences; What Constitutes a Farmer; A Beauty Society; Social Fallacies; The Profits of Sewing Machines; New Ideas in Premiums; Philosophical, 102. The Sorrows of "Mourning." Build up a Homestead; Nil Desperandum; Enterprise, 103.

YOUNG FOLKS' COLUMN. — Washing the Clothes (Poetry); Daniel Webster to His Son, The Magic of Silence; An "Awful" Story, 103.

GOOD HEALTH.—Typhoid or Remittent Fever; The Walking Cure, 103.

DOMESTIC ECONOMY.—Useful Recipes; Orange Cake; Sponge Cake, 103.

QUERIES AND REPLIES.—Salt Marsh Lands; Moles and Gophers; Crushed Wheat and Pine Apples, 105.

POULTRY YARD.—Turkeys—Their Profit—The Bronze Cross; Diseases Common in California—Cure; A Word to Beginners, 106.

SHEEP AND WOOL.—Angora Goats, 106.

USEFUL INFORMATION.—Edible Birds' Nests; Roman Iron Furnaces; How to Oil a Mill Spindle, 106.

THE SWINE YARD.—Management of Brood Sows, 110.

MISCELLANEOUS.—Age and Object of the Pyramids, 99. General News Items; Homestead Law, 105. Extracting Oil from Roses; A Monster Boiler, 110.

NEW ADVERTISEMENTS.

Trees, Shrubs and Plants, Dana B. Clark, Santa Barbara, Cal.; Ornamental Trees, etc., B. S. Williams & Co., Santa Barbara, Cal.; Ornamental and Fruit Trees, T. C. Maxwell & Bros., Geneva, N. Y.

The Week.

AGAIN the storms have come. In many places, at Chico, Smartsville, Marysville, Stockton, Redding and other points, one of the most severe storms of the season is reported. The fall of water has been great. As far south as Los Angeles the tidings have come of winds and rain. Again the farmer has had days of home-making.

WE address our readers this week again on many practical and interesting themes closely allied with the practice of the farm. Our correspondents have given us carefully prepared articles full of practical hints and valuable observation. Our own writing has led us through many avenues, and we trust our readers will find topics which press close upon them in interest and value.

Potatoes.

Last week we made brief reference to the result of the prize contest in potatoes, arranged by B. K. Bliss & Sons, of New York. The report of the committee was written by Dr. Hexamer, who is one of the most tuber-cular gentleman in the country, and it contains many items both of interest and use to potato growers everywhere. We cannot entertain our readers better than by reviewing this report and mentioning the wonders of potato growth which have been brought to light by this trial.

The soils employed by the contestants were of peculiar richness, as the mention will show. Mr. Perkins, who raised 1,666¾ pounds of Enrekss from one pound of seed; found a spot like this: "A mixture of sand and clay, very rich in vegetable matter to the depth of eighteen feet, and underlying this is a gravelly subsoil. For three years the ground was used as a stock yard, the straw being left on the ground to rot and be burned." Another competitor describes his soil as "black loam, four feet deep, on the bank of a creek, and it has been used for a cattle yard for ten years." Another, "as vegetable mold and sandy loam, three feet deep, never cultivated before." Many describe their soil "as deep, very rich, the best potato soil in the State."

The fertilizers used comprise nearly every known manure, and the quantities applied are not less enormous than the crop raised with them. Most growers have made compounds of various materials, and some seem to have faith in complicated formulas, which they prepare with the accuracy of a physician's prescription. About the value of wood ashes, hen manure and plaster, however, there seems to be no doubt, and we find them used by a large majority. Sulphur has been used by many. This substance does not enter into the composition of the potato, and it would be interesting to know if its application actually increases the yield. Have experiments to this effect been made?

The fact that single eyes and eyelets will, with good care, produce large crops, has been sufficiently proved. All the large yields were grown from very small sets. In some cases single eyes were divided into ten pieces, and in one instance 240 sets were made from one pound, nearly all of which grew well. The sets, with few exceptions, were planted singly, yet we find a product of 970 pounds raised from 52 hills, two sets to each, nearly nineteen pounds per hill, and 677 bushels per acre. Whether this large yield is due only to the favorable soil they grew in—a rich black loam, formerly used as a hog yard—and the immense quantities of ashes applied in the hills and as top dressing—one peck to the hill—or to the two-set system, does not appear. It is to be regretted that a part of the plat was not planted with one set to the hill and the products weighed separately.

A comparison of the distances between the hills, with the average yield per acre, gives a most interesting and valuable table, as follows:

The sets planted at a distance of

2	x	3	feet	gave a	yield,	per acre, of	378 bushels.
2	x	4	"	"	"	"	462 "
3	x	3	"	"	"	"	651 "
3	x	3½	"	"	"	"	441 "
3	x	4	"	"	"	"	372 "
3½	x	4	"	"	"	"	342 "
4	x	4	"	"	"	"	332 "
4	x	8	"	"	"	"	88 "

The large number of data of which the above figures form an average give these statistics a special value. It will be seen that although the greatest yields from one pound grew from hills four feet apart, the largest crops per acre were raised at distances of three feet each way, and that as the distances between the hills are increased or decreased the yield diminishes in regular proportion. In the first case there remains wasted ground which is not reached by the roots of the plants, and in the latter the roots are so crowded that they cannot obtain all the nourishment they are capable of consuming.

The mode of planting and cultivating with a large number of the best cultivators consists in crossing their fields with furrows six and more inches deep. The sets are dropped at the crossings and immediately covered with about two inches of soil or compost. The vines as they grow are hilled up gradually and frequently to a final hight of twelve to eighteen inches. Then large, broad hills are made, using all the soil between the rows.

STATE FAIR MANAGEMENT.—The Sacramento *Record-Union* gives a long article showing that five of the nine directors of the society are representative farmers, and the other four members worthy representatives of commercial and industrial interests. In our article we did not question the standing of the board. On the contrary, we believe them mainly to be earnest, honest and well meaning gentlemen. But we believe now, as we stated before, that the society has not been managed to the true interests of the agriculturists of the State, whatever the intention may have been. A few cheeky politicians, associated with good names, almost universally manage our political parties. That a few men, not honestly and squarely in sympathy with the real interests of farmers have run the State fair, we will leave it with those who know best and are most interested in the matter to decide.

Cost of Wheat in Minnesota.

Last week we gave our readers some interesting figures from the Agricultural Department in Washington concerning the comparative wheat yield of California and Minnesota. A closely connected subject would be the actual cost of producing a bushel or a cental of wheat in each of the two great wheat States. We find, in a letter written to *Moore's Rural New Yorker* by a wheat grower, some figures giving the cost in Minnesota for 1875. He had four fields and kept a book account with each separately. For the purpose of showing the items which he reckoned into his account we quote the entries of expense for the largest field, which contained 63 acres. It is as follows:

Plowing, $1.25 per acre.....	$78 75
Seed, 95 bushels Fife at 90c. per bushel.....	85 50
Six days' drilling at $2.50 per day.....	15 00
Three days' dragging at $2.50 per day.....	7 50
Harvesting.....	144 00
Stacking.....	48 00
Threshing, 5c per bushel.....	60 00
Threshing, three days' labor, with seven men at $1.50 per day.....	31 50
Use of land at $2.50 per acre.....	157 50
Board for help.....	48 00
Total cost.....	$675 75

The yield from this field was 1,200 bushels of wheat, making the cost per bushel 56 cents. Taking all the yields and expenses for the four fields into the figuring, the average cost per bushel of all the wheat he raised was 55¼ cents. The price for wheat in the Minnesota home market at the date the letter was written was 80 cents per bushel. In order to aid the California grower to a contrast, we reduce the figures to centals, and find the average cost of a cental of wheat in Minnesota to be 92½ cents, and the market value of a cental of wheat to be $1.33. Now, what does a cental of wheat actually cost the California wheat grower? We have not at hand any data for answering the question. What grower will furnish us his yield and expense account for last season?

We make this point merely to excite inquiry and interest on this matter and on all other kindred subjects in farm book-keeping. How many of our readers can tell exactly what it costs them to produce any article of produce? Doubtless some can tell to a fraction just what a crop costs and just what profit is gained. A farmer certainly ought to know these things. It is conducting a business in a business-like way. A first class manufacturer can tell exactly what it costs him to get out a hundred or a thousand machines. Why should not a farmer know what a ton of wheat actually costs? It is rightly claimed that a farmer should have a word in fixing the price of his produce which he sells. He could have this with more satisfaction if he knew just what that which he sells costs him to produce it. He could tell, too, just what percentage of profit his labor and investment are yielding. This is the application of correct business principles to the conduct of the farm. Who does it?

Frost in Florida.

Florida is now dividing with California the consideration of those frost-bitten Eastern agriculturists who long for the richness of semi-tropical climes. It will be of interest to those who have chosen California to know what they might have met had they journeyed South instead of West. Mr. Brogdon, late editor of the *Rural New Yorker*, writes that he has not so much confidence as he had in Florida thermometrical reports. He says he knows Jack Frost's work when he sees it. He says, also, that there has been a curling up of orange leaves in certain situations; the bananas have succumbed, and their broad, green, glossy, upright leaves are now drooping and withered. The castor bean plants have lost their semi-tropical beauty. The fact is worthy of note.

There is another point in the agricultural promise of Florida which is worth quoting, from Mr. Brogdon's writing. It is as follows: Two men from Michigan who have been through the State with a view to investing in homes, if they liked it, told me that they should start home to-day satisfied that no well-to-do Michigan farmer, unless his or his family's health required a milder climate, could improve his condition by coming hither and entering into any agricultural pursuit. An Indiana family went home a day or two since with the same conviction. They had been in the State some months. I am simply reporting isolated facts, let it be remembered. There are probably a great many of an entirely opposite character. Three men from bleak Nantucket have just gone back "sick at heart"—which means homesick, I reckon. They had traveled up the Indian river and thereabouts, and up the St. Johns, and did not conclude to stay the winter through, though they were prepared to do so if they thought best. A Minnesotan said he had spent a "heap" in travel in the State, and "couldn't see it." He has gone back.

ON FILE.—"Farm House Chat," by Mary Mountsin; "The Indian, His Peculiarities," A. B., Jr.; "Botanical Wonder," M. S.; "Washington Grange, No. 228," C. B.; Letter in reply to "Rancher," E. W. H.; "Cherry Culture," San Jose, (will the writer of "Cherry Culture" send us his full address?); "Constructing Ladders," J. B.; "Weight of Fleeces at Niles," S. and P.; "Large Milk Pans for Butter Dairies," W. P.; Grange Song Book Again," C. A. C.

Beet Sugar.

H. Orthmann, superintendent of the Sacramento Valley beet sugar company, has lately made a report to the Commissioner of Agriculture concerning the cost and profit of the beet sugar industry in this State. The report refers at the ontset to the consummation of the treaty with the Sandwich islands for the free admission of cane sugar and closes with a protest against the same. This is apparently the turning point in the industry in this State. To admit the Sandwich island cane sugar free of duty will fill our refineries with it and close the door to the manufacture of beet sugar. Because of this imminent danger, Mr. Orthmann notes that three companies formed to prosecute the business have dissolved, and the close of the Sacramento Valley establishment must follow the treaty. In spite of this prospect Mr. Orthmann furnishes a detailed statement of the present possibilities of the industry, which is of general interest and worthy of preservation. We quote his showing as follows:

I shall endeavor to give you a faithful and accurate delineation of the future of our own factory, as well as every other one now existing or that may hereafter be founded here:

I.—Expenses.

Reckoning the capacity of the factory to be of 12,000 tons of beets, the cost thereof at $6 per ton will be.....	$72,000
Working 70 tons of beets in 24 hours will require 18 cords of wood or a total of 3,096 cords, at $6.50 per cord.....	20,124
The above quantity of beets will necessitate the employment of 172 double shifts of labor (the double shift at 24 hours) and 26 Sunday shifts (of 12 hours) or a total of 370 single shifts. Each shift requires 15 white men at $2, and 30 Chinese at 75 cents, which will make, inclusive of officers, $60 per shift, total.....	22,200
The clearing of the juice will require 2 per cent. of lime, or for 12,000 tons of beets 240 tons of burnt lime at $12.50 per ton.....	3,000
The use of 15 per cent. of bone coal (allowing a turn of five days for the regeneration of the same) will require 50 tons of bone coal at $75 per ton.....	3,750
The regeneration of the bone coal requires 1½ per cent. of muriatic acid; this will take for the working of 12,000 tons of beets, at the rate of 15 per cent. of bone coal, 25 tons of muriatic acid, at $6 per 100 lbs.....	3,060
Using for 12,000 tons of beets 3,500 yards filtering linen, at 25 cents per yard, makes.....	875
Coke used for the production of carbonic acid at the rate of two barrels for 70 tons, requires, for 12,000 tons of beets, 342 barrels, at $1.10 per barrel.....	376
As will be shown hereafter, the 12,000 tons of beets will give 900 tons of sugar, the packing of which requires 9,000 barrels, at 75 cents...	6,750
Lighting, per year.....	250
Four horses for hauling sugar.....	300
Repairs.....	1,000
Sundry expenses.....	500
Total expenses.....	$134,185

II.—Receipts.

Admitting the content of sugar of the beets at an average to be only 12 per cent., 100 pounds of beets would produce, by working for refined sugar, as follows:

First product, refined, 5 lbs., at 12½ cents.....	62½ cts
Second product, refined, 1½ lbs., at 10 cents...	15 cts
Third and fourth product, unrefined, 1 lb., at 9 cents.....	9 cts
That is, in sugar from 100 lbs. of beets.....	86½ cts
The above style of working will give on 100 lbs. of beets 2 lbs. of molasses, at 1 cent ₰ lb.....	2 cts
100 lbs. of beets will further leave 70 lbs. of remnants (selling now at $1 per ton) which gives.....	3½ cts
Therefore, 100 lbs. of beets will bring.....	92 cts
Which, by working the above estimated amount of 12,000 tons, will bring.....	$220,800
The total of expenses as heretofore shown, being.....	134,185
Will leave a net gain for the whole campaign of.$	86,615

The capital invested in a factory of this kind amounts to $250,000, which at the given rate of net profit of $86,615, will produce a dividend of 34.646 per cent.

The results of the working of our factory in the campaign just ended have kept pace exactly with the foregoing statements, but the fact that the crop of beets, on account of the dry weather in this year, has fallen considerably short of the quantity on which my calculations are based, has prevented the declaring of a dividend for this year. However, this drawback will be unquestionably overcome next year (1876), for the reason that the company has made the necessary arrangements to cultivate a much larger area of land so as to give us by all means a crop equal to the fullest capacity of the factory.

JAPANESE AGRICULTURAL COLLEGE.—According to the Springfield *Republican*, our agricultural college experiment is to be repeated in Japan. The Japanese government have been for some time endeavoring to engage President W. S. Clarke to found for them an agricultural institution after the plan of the one at Amherst. The trustees have granted him a year's absence, and such arrangements will be made that it is believed his going will not prove injurious to the Massachusetts college. Ample capital will be furnished. Col. Clarke is authorized to engage his assistants, and in every way to conduct the undertaking after his own methods. A special minister has been in the country effecting the arrangement.

HOPS.—The value of the hops imported into the United Kingdom for the year 1875 was £1,185,604; in 1874, £930,896.

GARDEN SEEDS.—We have received a fine assortment of garden seeds from J. B. Root, of Rockford, Ills., who cultivates his own stock.

The Revival of the State Geological Survey.

MESSRS. EDITORS:—The proposed revival of the geological survey of the State has been variously commented on by the press. By some the whole subject has been ridiculed; while others, more thoughtful, though finding fault with its previous management, have expressed a qualified appreciation of the proposed resumption. The fact that a number of Eastern States have lately ordered a repetition of their geological surveys, in answer to a very positive demand from the people, should at least induce us to inquire what important objects should and may be expected to be accomplished by such works. If the manner in which it has heretofore been conducted in this State has proved more or less unsatisfactory, it is but fair to inquire what made it so, and whether the State can afford to leave undone the things that should have been done long ago, for no better reason than dissatisfaction with their not having been done sooner. That a thorough and systematic investigation of the industrial and more especially the agricultural resources and features of California is urgently needed, is conclusively proven by the publication of numerous circulars and pamphlets describing the features, and dwelling on the special advantages of particular sections of country, and intended to furnish to the farmer or immigrant a class of information he cannot otherwise obtain without visiting the spot himself. The new comer, nevertheless, always looks upon these publications as *ex parte* statements, and however correct in fact, they necessarily lack that element of thoroughness and completeness which can only result from systematic and scientific investigations, comprehensive enough to take a broad view of the situation. Such a description of the industrial features of the State, and their discussion and experimental investigation under the auspices of the State, I consider here, as elsewhere, one of the first things needful, not only in its direct bearing upon the interests concerned, but also, and very essentially, as one of the prime factors of the practical usefulness of the agricultural department of the university. These views are more detailedly set forth in the *University Bulletin* of August last, of which I inclose a copy, and part of which I would ask you to reprint in this connection.

If the programme here suggested were made a postulate in the revival of the State survey, and carried out in good faith, I doubt that the most exclusive utilitarian could find fault with the measure, or with its practical results.

EUG. W. HILGARD.

University of California, Jan. 28th.

Agricultural Information.

The following are the paragraphs alluded to by Prof. Hilgard in his letter. We urge every farmer to avail himself of the light which may be obtained from this source concerning any dark point which may arise in his experience

Realizing the fact that in order to give instruction of a truly practical character, agricultural colleges should be able to teach the students not only what should be done in certain suppositious cases, but also what, in fact and practice, they will have to do under the circumstances actually existing in their own State, the Regents, on the recommendation of Prof. Hilgard, have made an appropriation. and authorized the appointment of an assistant analytical chemist, with a view towards the inauguration of a system of thorough investigation of the agricultural and industrial resources of the State, or what might be termed an industrial survey. Such a work is the needful complement of the geological and topographical survey heretofore made, which forms its necessary basis, the results of which it will utilize and expand, and render practically available to the people of the State, by direct application to every-day life.

The possession of the collections of the State Geological Survey is of especial importance and advantage in this connection.

In carrying out the portion of the work more directly related to agriculture—the investigation of soils and of their relations and adaptation to crops, the plan will be to obtain, first, a full knowledge of the occurrence, location, extent, natural peculiarities and climatic position of each prominent variety of soil, by examination in the field; and at the same time to elicit by inquiry from those cultivating it, whatever of information or experience they may possess as to the soil's merits, demerits, peculiarities or adaptations; thus gaining suggestions as to the most immediately important points to be investigated. Specimens of the soils, carefully taken to secure representative samples, will then be subjected to such examination, mechanical and chemical analysis, etc., as may be seen advisable in each case. The results of these investigations, with suggestions as to the soil's treatment and adaptation in culture, may then be published and subjected to the practical trial which must form the final test in questions of this nature.

Such tests should most properly be made at local experimental stations established for the purpose in each agricultural subdivision, as is done in Europe, as well as in some of the Eastern States. But agricultural societies, as well as intelligent individuals, may largely replace such stations for the present; and the co-operation of societies and individuals willing to aid in this work is most earnestly invoked and invited.

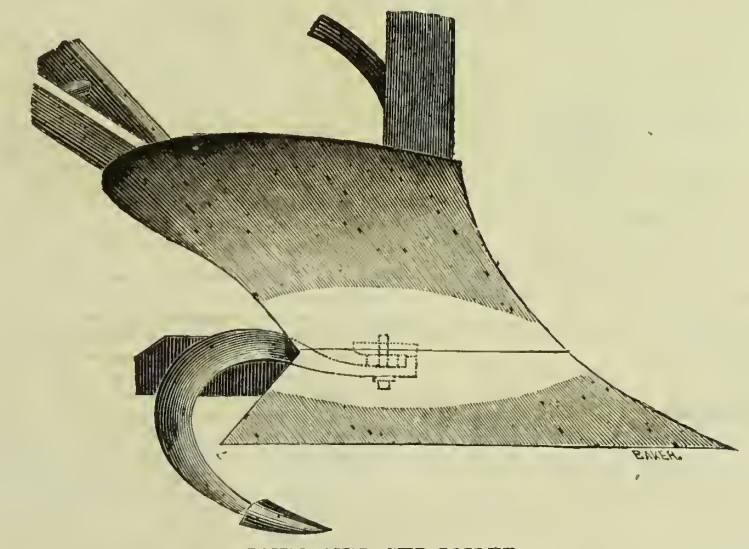
The knowledge thus obtained of the State's agricultural features—the kind, distribution and adaptation of the soils, their mode of treatment and means of improvement, will not only enable the farmers to purchase and cultivate more intelligently and profitably, but it will render possible the publication of an authentic and accurate description of the State, conveying the information wanted by every immigrant, and the best possible advertisement of its industrial advantages. The students of the agricultural college will then go out with definite fore-knowledge of what they will have to deal with in actual life, and prepared to turn the knowledge acquired to direct account.

The agricultural department of the University cannot, of course, accomplish all this unaided, with its limited means, or in a short space of time. But it is thought that much good may be accomplished by doing whatever is done systematically and thoroughly, and giving the results the greatest publicity through the agricultural societies and the rising generation.

Communications, inquiries, specimens, etc., relating to agriculture or cognate subjects, addressed to Prof. Hilgard, will receive prompt attention and answer, so far as is practicable without the data to be supplied by the Agricultural Survey.

Sub-Soiling.

Where shall we seek the agency which will give us richer fields? This is an important question to those whose acres seem to tire of former crops and have reduced their yield by a third or a half, or two thirds, within a score of years. We do not intend to instance the need of restoring to the land fertilizers which represent the wealth which has been taken



JOHNSON'S SUB SOILER.

from it, nor to say that the fields have been cropped to death. We wish at this time to call attention to the subject of sub-soiling, in order that our farmers may think seriously of it, and arouse an interest which will test its value.

There is reason in the sub-soiling practice, where the soil is deep enough. It will not do in shallow soil where all the productive material can be buried under an unproductive subsoil. But where the rich alluvial deposit extends downward from five to fifty feet, it is evident that the farmer who has only been tickling the surface with his plowshare, has a mine of fertility below if he can bring it to the light. This he can do by letting his plow strike deep, bringing to the air a most productive sub-soil, which will restore to him the crops of old.

In England the farmers are now being won to steam cultivation because it enables them to strike deep into the wealth of the sub-soil. The London *Agricultural Gazette* notes this advance in practice. Even on light soils it is economical. The deeper that light soils are stirred, the more retentive they will be of moisture. Suppose this were done even a yard deep, so that the crust of ages was broken to that depth, certainly the moisture that is stored in greater depth would be less exhaustible in summer. Thus light soils are made, from being more retentive of moisture, more capable of producing both green food for stock and cereals. And the advantage of deep culture for light soils is only equaled by the same practice in heavy soils; a culture which will overcome their tenacity, admit the wholesome action of the air and doubling their productive power. This has been the result of experiments in deep culture in England. How like a perfect answer to a need it comes to those who are familiar with the requirements of California farmers to insure the success of their crops. What do our farmers think of the prescription?

We have been much interested in a letter from a farmer in the Germantown *Telegraph*, in which he claims that he has discovered a new farm under the old one. It is a happy way of expressing the same idea which we are describing. His narrative is very interesting: "Some four years ago the Boston and Maine railroad extension to Portland was built through, and followed the northeast boundary of my farm on its entrance to this city. For 60 rods a cut was excavated 20 feet deep, the earth of which was carted out on one side and covered four acres of mowing land from six to 10 feet deep. This dump was composed of loam, sand, gravel, clay and rocks, and it was declared by the committee that the field was ruined, and I obtained damages for the full value of the ground. Being driven with other work, I allowed this dump to remain unmolested for two years to warm and dry. Being an eyesore and scab on the farm, I determined to abate it as soon as possible. I first hauled off all the stones and put them into a good wall, making a piece some forty rods long; then plowed the ground and leveled it with the scraper for the mowing machine; plowed again and carted on a light dressing of manure, and all was leveled, harrowed thoroughly and sowed to grass seed in August, 1874. Last summer, to my own surprise and that of every one, I cut the heaviest crop of hay I ever saw grow. Now this goes to convince me that the earth is composed of vegetable substances all the way through, and is only waiting for the plow to bring it to the surface to warm and dry in order to produce beautiful crops. Any one having an old worn-out farm which he has become sick of, has only to procure one of our modern steel plows and gauge it to twice the depth he has been accustomed to plow; break up that hard pan underneath and bring it to the surface, and thus at once secure drainage, heat and moisture. By doubling the depth of your plowing you double the capacity of your soil to produce crops, and perchance turn up a new farm which may please you better than the old one."

We hardly think our discoverer of the new farm could prove the statement that the earth is "vegetable substance all the way through." He probably means that plant food exists deeper than we think. He has the idea, however, and although we do not believe that farmers are destined to become miners, still in most cases they will find that there is wealth lower than they work.

This matter is worthy of attention and a thorough trial. There has been objection urged because of the expense required to go over the ground with a subsoiler in addition to the ordinary plowing. There are inventions which attach a sub-soiler to the common plow. We present an illustration of this kind of an implement this week. It is in the hands of Gen. G. W. Deitzler, at 426 Montgomery street. It is to be tried thoroughly and made to stand or fall upon its merits. The implement has been furnished to a number of first-class farmers for purpose of a test, and their verdict will be of value. The whole subject is, we think, one worthy of careful attention, and if this instrument is not effective let us have one that will be. We should be pleased to hear from our readers on the subject of sub-soiling, with results of any trials which they have made with the practice.

GET THE BEST.—From all we can learn there is no better life insurance company doing business here than the MUTUAL LIFE INSURANCE Co., of Newark, New Jersey. It is represented on this coast by Mr. James Munsell, Jr., whose office adjoins our own, at No. 224 Sansome street, San Francisco. Some of the best business men on this coast are carrying policies taken out for large amounts through Mr. Munsell, who has been the gentlemanly and active agent of the company for some years. We would call the attention of readers to the new feature of accelerated endowment policies now issued by this company, as mentioned in their advertisement on another page, and fully explained in their circulars, which will be sent free on application. The only insurance journal on this coast, the *Pacific Coast Review*, speaks of this company as follows:

"For faithful and economical management, the Mutual Benefit Life Insurance company, of Newark, has a record equal to any company in America. Its dividends paid to gross premiums received, have been larger than those of any other company for the past ten years, and its average ratio of expense of management to income, since its organization, only amounts to eight and 76-100 per cent. It is purely mutual, dividing up the surplus annually with the policy-holders. It is a sound and reliable organization, under judicious management, and entitled to the full confidence and liberal patronage of the public."

QUERIES AND REPLIES.

Salt Marsh Lands.

MESSRS. EDITORS:—Having an interest in about 100 acres of salt marsh recently dyked in, would like to know the quickest and best way of making it available, whether by pasturing or cultivation, and what kind of crops would be best adapted to that kind of land. The soil is black and apparently very rich, and covered with a tough sod about fifteen inches thick. Any information on the subject will be gratefully received by a subscriber. G. B. KNEELAND.

Arcata, January 12th.

Mr. E. L. Beard, of Mission San Jose, informs us that if the dykes are built and the land can be flooded with fresh water, it is the best practice to flood it several times, drawing off the water and admitting fresh. If this can be done the land can be ready to plow in the fall and a crop of wheat or barley put in. The first crop will do for hay; the second year's crop for grain.

If it is not convenient to flood the land, turn on cattle, and pasture it until the fresh grasses come in. Then it may be plowed and seeded to grain.

Authorities Cited.

MESSRS. EDITORS:—In your letter of January 23d, you ask me to give you my views of the best mode of cultivating or utilizing salt marsh land after it has been defended against the tides by dikes.

I have no personal experience in the cultivation of *salt* marsh land, the island upon which I live being fresh water marsh, although it was, before reclamation, subject to the flow and ebb of the tides, but not tides of salt water.

I have done a good deal of reading about salt marsh lands, and if your friend of the Arcata marshes is not so excessively "practical" as to despise book knowledge, I would advise him to buy a little English manual, called "The Practice of Embanking Lands from the Sea," or some such title, published by Weale of London, and known among booksellers as one of the "Weale Series" of engineering books. It costs about $1.25, or thereabouts, at the San Francisco book stores. Besides the engineering details, it gives the European practice for freshening, sowing and cultivating the salt marsh lands after reclamation.

You will also find an exceedingly interesting and practical essay on the same subject in the Congressional Agricultural Report for 1861, by the Rev. Wm. Clift, of Mystic, Conn. Mr. Clift was one of the editorial gentlemen who made us a visit last year; and among other matters he visited and examined carefully our fresh water marshes of the delta of the San Joaquin.

He gives in the article referred to his own experience in reclaiming and cultivating eight acres of salt marsh, and that of several other farmers of Connecticut, with the facts of which he was personally conversant. He also cites one case of the New Jersey reclamation. You will do a good service by publishing a summary, or extracts from that essay.

There is also somewhere in the Agricultural Reports a long essay by one of the engineers of the New Jersey reclaimed marshes; but I cannot now refer to the volume.

Judge Stanley, of San Francisco, has been experimenting with grasses on some reclaimed marsh land, on the north side of San Pablo bay, which I believe was salt marsh, or overflowed with brackish water. Mr. E. L. Beard, of San Jose Mission, can tell you what the Englishmen are doing to whom he sold a large tract of salt marsh on the shores of Alameda county.

You will also find in the October number of the *American Agriculturist* for 1873, some very judicious and practical remarks on the subject of reclaimed salt marshes.

I infer from all the above that plowing and harrowing are not among the first things to be done on those lands; but thorough draining, sowing tame grasses and clovers, and dressing with such manures or chemicals as the nature of the case may demand, and pasturing alternately with hay cutting.

That's all I have to say about *salt* marshes at present; but since you have set me agoing I may in another number say what I know, and a good deal that I don't know, about the cultivation of *fresh* water marshes.

SHERMAN DAY.

Bacon Island, West Side of San Joaquin, Feb. 3d.

We shall be pleased to hear from Mr. Day on the subject he mentions.—EDS. PRESS.

Moles and Gophers.

MESSRS. EDITORS:—In your paper of the 29th inst. you wish a sure means of killing moles and gophers, I suppose. A gopher opens his door for the purpose of feeding about sunrise, noon and toward sunset, and keeps it open for an hour or two. During this time it is an easy matter to drop any prepared poison into the hole and he will be sure to find it, as he never fails to return to close the door. Any of the prepared poisons for squirrels will answer the purpose. An excellent poison may be prepared by taking one drachm of finely powdered strychnine, and mixing it with a quarter of a pound of powdered sugar. Wet the mixture with a spoonful or two of boiling water, so as to make a very thick syrup, then stir in a pound and a half of wheat, and continue to stir until the wheat has absorbed the water of the syrup, and you have a finely sugar-coated wheat that a gopher can neither eat nor carry away without being poisoned. Half a dozen grains will be sufficient to drop in each hole. I have tried various means of killing gophers with partial success, but poison, properly prepared, dropped into their open holes, has with me always succeeded. Be careful to put the poison so far into the hole that domestic animals or fowls cannot reach it. This process, to be eminently successful, must be perseveringly used, but that is the case with all our affairs on the farm.

Yuba City, Jan. 31st. GRANGER.

This corroborates Mr. C. Bagge's experience, of Oakland. He takes an old pickle jar, filled with pieces of vegetables slit open, and a few particles of strychnine inserted. Then he pokes the poisoned pieces of vegetables into the holes on the point of a knife or stick.

A strong point is not to leave any unplowed ground about for the gophers to get into for shelter in extreme wet seasons. During the past few months in many places it has been so wet as to drown them out, except some unplowed places under trees and next to the fences, where the hard ground frequently becomes honeycombed with their holes.

CONDENSED EGGS.—There is in Germany an establishment for drying eggs. It is called a condensed egg factory. The new process dries the egg and reduces it to a fine powder. The material is to be introduced into the London market.

Poultry Yard.

M. Eyre, Jr., Napa, Cal., Corresponding Editor of this Department.

Turkeys — Their Profit — The Bronze Cross.

As turkeys need little feed, on a farm, after they are half-grown, foraging and finding their own living, they are a source of great profit, and should be more generally kept. Many complain of the great losses among their turkeys; and here in Napa it seems as if the common turkey entirely lacked stamina. The reason is found, I think, in breeding in and in, and in retaining only young hens as breeders. By using a bronze gobbler in the next generation, that is when the one-half breed bronze hens thus obtained are kept as breeders, the young may be raised with few or no deaths. The size is thus increased also. The half-breeds of one of my neighbors averaged seven pounds each more in weight than the common turkeys he had raised the previous year; and in 120 young raised he found an increase of 840 pounds. Mr. McKinney, of Galt, Sacramento county, weighed his half-breed gobbler when eight months, and he turned the scales at 20 pounds. The increase in weight and greater hardiness is not the only benefit of the Bronze cross. The half-breeds sell for a much higher price in market. I have before me the return of D. E. Allison & Co., commission merchants, 309 Washington street, S. F., by which it appears that they sold all the half-breed Bronze turkeys at 30c ₱ lb., while the common brought but 16@18c. At this rate a young half-breed gobbler at eight months old will bring in market, 20 lbs. at 30c., $6. When a year old, 25 lbs. at 30c., $7.50; just the price of *three sheep* of the same age; while three such turkeys, worth $22.50, will not cost to keep as much as one sheep worth $2 50. Nor are these weights those of only an odd specimen. My neighbor's (J. Dixon, Napa, Cal.) half-breed Bronze gobblers in December, when sold, many of them only seven months old, none over eight months, averaged, the entire lot, 19 pounds each.

Diseases Common in California—Cure.

The diseases most to be dreaded on this coast among grown fowls are a swelling of the head, running at the nostrils, etc., nearly allied to roup, and a disease accompanied by inflammation of the intestines, which I may call *enterites*, the symptoms of which are, first diarrhœa, then the fowl shows a thin, pinched look in the face, mopes and stands with its head drawn in, the droppings meanwhile becoming green and sometimes of the color and consistency of yellow paint, until very soon thereafter it dies. The cure for the first named disease was given in the Press of December 20th, 1874; but I may repeat here that the remedy is to wash the head with a solution of chlorinated soda, one part and water two parts, with two drops of carbolic acid to each ounce. At the same time give one-half teaspoonful of glycerine internally, and confine in a warm, dry place. Instead of the chlorinated soda, a wash of glycerine, with two drops of carbolic acid to each ounce, may be used.

The latter disease is very common, and I think more fowls are lost by it than from any other cause. It is the nearest approach we have to the scourge in the East which they call chicken cholera. The best remedy is to give the fowl an ounce of strong alum water twice a day; feed soft stimulating food, and confine in a dry, warm place. The proportions I use are a pound alum to a gallon of water. If fowls are confined in yards, the first symptoms of the disease may be noticed in the droppings, when alum water may be mixed with their soft food. But "an ounce of prevention" in this matter is worth many pounds of cure, and the disease may be almost entirely prevented. My method is to keep constantly on hand the following mixture: one pound sulphate of iron (green copperas or green vitriol, to be had in any country store at 12 or 15 cents a pound), and 30 drops of sulphuric acid, dissolved in four gallons of water. Each morning add to the soft food for 100 fowls one-half pint of this solution. Once a week, when boiling meat for my poultry, I add one-half pint of alum to the "soup" in which I mix up bran, making a feed for about 400 fowls.

To succeed in keeping chickens healthy and consequently a source of profit, avoid all drafts in their houses, making the ventilation above the roosts alone, keep the houses clean and dry inside and thus prevent colds, swell-head and roup; use the preventive given above, or the alum water if the disease appear, and keep free of lice by the use of carbolic powder, and in this state poultry will pay even better than it does in France, where the amount of the sales of fowls and eggs exceeds the price of the whole wheat crop in California, and where poultry forms the principal source of income of many families.

A Word to Beginners.—Now is the time for the amateur and those who intend to embark in the profitable business of poultry breeding, to select their stock. Of course it is difficult to advise what breed of poultry to select. However, when the intending breeder has made up his mind, let him buy his birds from men well known for their honesty and fair dealing. For profits, you will find them, in judicious management of poultry, and after a little trial and experience I do not think you will complain and say it is unprofitable. However, the present and two ensuing months are the best to get your stock for breeding, and I advise you not to delay, but to purchase fowls and eggs at once.—*W. H. M., in Poultry Nation.*

Sheep and Wool.

Angora Goats.

Messrs. Editors :—I have been in the Angora goat business only two years and I think that it will not be long until it will supersede the sheep business, for several reasons. The goats do not need as fine quality of food as sheep. They will live entirely in the mountains, subsisting upon the browse of this lower county. I have a band of 600 and they all range in the mountains all the time. I was afraid that they would pull out their wool, but they are as careful about that as a person would be about pulling his hair. The mohair I have worked right at home. The women work it the same as wool, into yarn, and knit it into socks and stockings. It is the old fashioned style, but a very economical way of putting in long evenings. They work it all by hand. It would be much better if there was some machinery for carding and spinning it into yarn; then they could afford to knit it very well and make it profitable to the manufacturer and the consumer. These socks sell from 75 cents to $1 a pair, when you can get sheeps' wool for three bits to four bits for a pair made in the same way. One pair of mohair socks will last as long as four pairs of wool. They are more elastic and the fiber is so long that the yarn is as strong as hemp twine, and very soft and white. I hope to hear from some other experimenters with the mohair.

L. H. Gaskill.

Campo, San Diego Co., Cal.

[Our correspondent, Mr. Gaskill, is the one who was "fatally wounded" by the Mexican bandits. We are glad to know that he is up again and able to send us interesting items. Eds. Press.]

Useful Information.

Edible Birds' Nests.

Edible birds' nests are found for the most part in the Southern Archipelago. The chief region of supply is that comprising Java, Borneo, Celebes and the Sula islands. The bird which produces the nest is a little swallow, *Hirundo esculenta*. This Salangan swallow, as it is called, is slightly bigger than a blue tit; it has a brown back; but the under surface of its body, as also the extremities of the feathers in its forked tail, are white. It flies with wonderful speed and precision; and on the Java coast, where the surge breaks wildly against the precipitous and caverned walls of rock, the little birds may be seen in swarms darting hither and thither through the spray. They probably feed on mollusks and other small animals which abound on those coasts. As you watch the surface of the water rising and falling, you notice how the holes in the rock are now concealed, now open again; and the little creatures watching their opportunity, dart in and out with lightning speed. Their nests are fixed to the arched roof of those caverns.

What sort of a thing then is the edible bird's nest, that misisters to the taste of the luxurious Chinese. It is that portion of the fabric which serves as a sort of bracket on which the nest itself (made of grass, seaweed, fibers, small leaves, etc.) is built. There are two forms of this support, one flat like an oyster shell, the other deep and spoon-shaped. It is a transparent mass, somewhat like isinglass, mother-of-pearl or white horn, and is of animal origin. It was formerly supposed that this gelatin-like mass might be prepared in the bird's crop, from seaweed and other marine plants. This, however, is a mistake. If one opens the animal's stomach about the time of building, it is found to contain insects, but no vegetable matter; moreover, in all species of the family of swifts, the crop is wanting. Dr. Bernstein has found that at that season the salivary glands under the tongue are enormously developed. On opening the bill they are seen as two large swellings, one on either side, and these chiefly supply the material in question. They secrete a viscid mucous substance, like a concentrated solution of gum arabic, which can be drawn out of the mouth in long threads, and in the air it soon dries, and is found to be the same (even microscopically) as the bracket material.

When one of the little birds wishes to begin building, it flies repeatedly against the selected spot, pressing each time a little saliva against the rock with the tip of its tongue. This it will do from ten to twenty times, moving away not more than a few yards in the intervals. It then alights, and arranges the material in semi-circular or horse-shoe form on the rock, continuing to add saliva to that already deposited, and by the motions of its body from side to side the yet soft saliva is forced out over the harder parts, producing those peculiar undulatory bands which give the nest a stratified appearance. It is thought not unlikely that part of the secretion used by the bird comes from the largely developed glands in its stomach; also, that gelatinous matters picked up in the surge are employed in the construction of its nest. The Salangar never uses the same nest more than once, and that for only a month; and after the young brood is flown the nest soon decays and falls to pieces.—*Chambers' Journal.*

Roman Iron Furnaces.—It is rather remarkable that Roman iron slags are always found on the tops of hills, and never in a valley, where water power could have been utilized to effect a draft. Hence it is inferred that the Romans never used bellows, but that they employed the natural draft of the wind in some manner. The indications are that hollows or shafts were dug out in the hill top, to which a long tunnel was driven from the side of the hill against which the prevailing wind blew. Through this open passage-way to the bottom of the furnace there would be a strong draft, which could be utilized for blower purposes. It is evident such a process must have been very inefficient, and attended with great loss of iron, which must have been left in the slag. Similar furnaces were used in Derbyshire, England, as late as the 17th century, probably handed down from the Romans.

How to Oil a Mill Spindle.—Professor Norvel Hoge, of Greene county, Pa., suggests the following method of oiling a mill spindle, which may be of value to some of our readers. He says: "Bore a hole of suitable size diagonally through the follower, (if made of wood,) from the outside bottom corner to the inside top corner, into which insert a piece of lead or tin tube, fitting neatly, trim the upper end to fit the spindle, then prepare another similar tube that will fit nicely inside the first, provide a piston to fit the inner tube, inserting the piston into the lower end of this inner tube, fill it with oil, after which introduce it into the tube in bush follower from the under side. To oil the spindle as occasion may require, press the piston upwards, and when the oil is exhausted, take out and refill the inner tube."

Iron is the symbol of civilization; gold represents wealth. The value of the former in the arts can be measured only by the progress of the present age. In its adaptations and employments, it has kept pace with scientific discoveries and improvements. Hence the use of iron indicates the advancement of nations. Iron is worth more to the world than all other metals combined. We could dispense with gold—it ministers largely to luxury and refinement—but iron represents the honest industry of labor. Its use is universal. There is no "California" of iron; it is found in great abundance in every nation on the earth. From this fact we discover how indispensable the Creator deemed this metal to the education and development of man.—*Ex.*

THE PACIFIC RURAL PRESS

For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the Press MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials.

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the Rural and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the Rural Press may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the Rural Press for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our Home Circle department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the Rural will be cared for in our Good Health, Useful Information and Domestic Economy columns. Our General News Items, New Inventions, Scientific and Mechanical Miscellany articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the Rural Press will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the Rural Press of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the Pacific Rural Press will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

We Prepay the Postage

On all papers sent to subscribers in the United States.

Subscription Rates, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers,

No. 224 Sansome street, S. F.

Campo, San Diego Co., Cal., July 3d, 1874.

Messrs. Dewey & Co.—*Gentlemen:* To-day I received the patent and other papers of my animal trap, that you so successfully worked through the patent office for me, for which please accept my best wishes. The chances are that I will have another application for you to make for me before long. I am well satisfied with your manner of doing business, and I think inventors of this coast stand in their own light when they do not put their business into your hands.

I remain yours truly, A. M. GASS.

A Real Convenience.—Dewey & Co: Please send me the Rural Press. It is a real convenience and I cannot do without it. Enclosed you will find five dollars. Fraternally, B. F. E. K.

Anaheim, Cal., October 12, 1874.

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for this season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. Fredericks, seven miles north of Winters, Yolo County, Cal.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

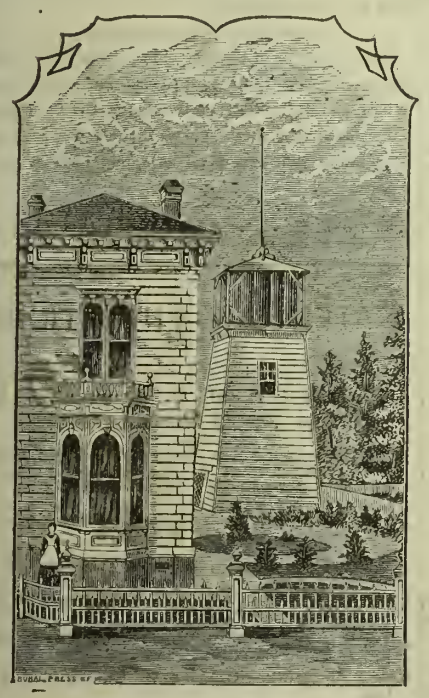
GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Legborns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GRUES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Legborns. For prices and description address as above with stamp.

THE TURBINE.



Simplest, Cheapest, and Most Durable.

The Inventor of the Dexter Windmill has made new and useful improvements in Windmills, patented March 16th, 1875, and now feels confident of having the SIMPLEST, CHEAPEST, MOST DURABLE, and

ONLY PERMANENT WINDMILL IN THE WORLD.

SIMPLEST, because it is less complicated; CHEAPEST, because it never needs repair, standing on a firm foundation; MOST DURABLE, because it is all under cover, and has less rigging to get out of order; ONLY PERMANENT, because the only Windmill in the world that has never been injured by storms. Hundreds of people, who have thought the Dexter perfect, will be glad to observe the SUPERIORITY OF THE TURBINE over all predecessors. Although much improved, the price of mills remain the same as formerly. Persons who study their own interest will investigate the TURBINE before purchasing any other.

Territory for sale outside of California, at reasonable rates and easy terms.

Mills built to order of the best material, and at the shortest notice, by Kimball Manufacturing Company, corner Fourth and Bryant streets, San Francisco. Any orders sent to their address will receive prompt attention.

☞For further information regarding Mills or Territory, send for New Circular. Address,

A. H. SOUTHWICK,
P. O. Box 1385, San Francisco; or
P. O. Box 25, Oakland, Cal.

mr13-1am-bm

FOR SALE,

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of J. M. DUDLEY,
Dixon, Solano County, Cal.

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow. Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..	$85 00	Extra Shares—No. 1.....	$3 00
No. 2 " " " " ..	90 00	" " No. 2.....	3 50
Landsides for single Plows..	$2 50		
" " Gang Plows...	1 50		

All kinds of casting done on short notice.

San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

CANDLES.

MITCHELL'S

New York Candles

Full Weight and 14 ounce.

Will be found on comparison to be

Unequalled in Quality.

14 GMG OZ.

STEARIC ACID CANDLES

GEO. M. GRANT & CO.

PHILADELPHIA.

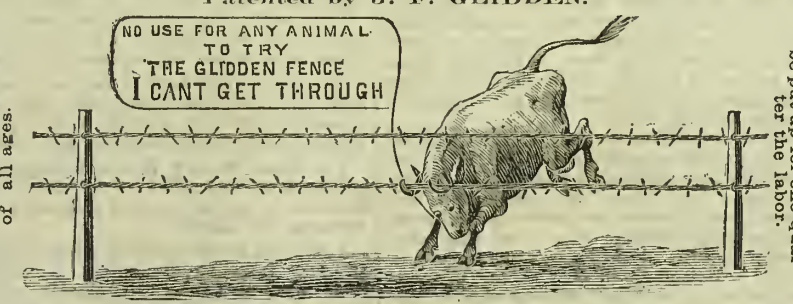
FOR SALE BY ALL THE LEADING JOBBERS.

Geo. M. Grant & Co., Agents. San Francisco.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.



It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
K and 10th Streets, Sacramento.

General Agents for the Coast.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
El Dorado, El Dorado Co., Ca

Poultry.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns.
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F

California Farmers' Mutual Fire Insurance Association.

No. 6 Leidesdorff St., Rear of Grangers' Bank.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't	I. G. GARDNER...V Pres't
G. P. KELLOGG, Treasurer	A. W. THOMPSON.....Att'y
I. C. STEELE.....San Mateo	CHAS. LAIRD, ... Salinas
A. WOLF.....Stockton	A. D. LOGAN,..... ....Colusa
W. H. BAXTER.....S. F	G. W. COLBY .....Butte Co
J. C. MERRYFIELD, Dixon	C. J. CRESSEY.....Oakland
A. B. NALLY... Santa Rosa	E. W. STEELE, S. L. Obispo

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....	$3,026,378.00
TOTAL PREMIUMS.....	63,306.49
LOSSES PAID.....	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—cost nearly $245,000. Will be kept First-class, at $2.00 per day, and less by the week or month.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

(Continued from Page 101.)

SONOMA.

CAROLINE AIDAIE.—*Demooral*, Feb. 5: This celebrated Short Horn cow, belonging to the Page estate, has a young heifer calf a few days old, which is said to be a beauty. The day is not far distant when the Short Horns of Sonoma will be as famous as the wine of Sonoma.

GOING TO NEW MEXICO.—Wm. Pinkerton, who lives near Sebastopol, in this county, has purchased 10,000 sheep from Hill & Reeves, of the Tejon ranch, and will drive them to New Mexico, where he has bonght large tracts of lands. It is designed to drive them directly across the Mohave desert, instead of going by the way of San Bernardino.

STANISLAUS.

WOOLEN MILL.—*Independent*, Feb. 5: We are informed on nnqnestionable authority that the citizens of Knight's Ferry, on Thursday, January 27th, met and organized a woolen manufacturing company, with $100,000 stock in 1,000 shares at $100 each. $5,400 in stock were subscribed on the spot. They are sure of large success in this enterprise if they succeed in getting a railroad that way. This week they have opened books to take subscriptions to railroad stock.

TULARE.

DOUBLE-HEADED LAMB.—*Times*, Feb. 5: At the old drug house can be seen a double-headed lamb. The freaks of nature sometimes puzzle the most scientific student of all things. There are two perfect heads, four eyes, two mouths, two noses and four ears. The two heads join just back and at the top of the ears.

YOLO.

GRAIN.—*Mail*, Feb. 3: The grain prospects were never better than now. Both snmmer fallow and volunteer have a better stand and growth than is usual for the first of March, and the number of acres in seed in this section is largely in excess of any former year.

VENTURA.

THE PROSPECT.—*Signal*, Jan. 29: On Sunday night the heaviest rain of the season fell. It rained incessantly for fourteen hours, flooding the highways and streets and causing all the creeks and rivers to rise rapidly. The San Antonio could not be crossed on Monday morning, and the Ventura was higher than it has been for many years. No great damage has been done. The ground is thoroughly saturated; even the steepest hillsides are full of water, and will produce in consequence more than their ordinary supply of feed. The early sowed grain looks well, and now hundreds of acres more will be sowed.

PORK.—A man in the Santa Clara valley, on the Brigge ranch, two years ago bought $2,000 worth of hogs, and has sold from the increase $12,000 worth, and has $8,000 worth of hogs on hand. Another party of the same ranch commenced with fifty hogs and kept a strict account of all the expense of keeping the hogs and of all that he sold during the year. At the end of the year, with what he had sold and stock on hand, he had over three dollars clear for every dollar invested. Who will say this is not a good country for hog raising?

Arizona.

ARIZONA FARMING.—*Alta*, Feb. 5: The popular and general impression of the Territory of Arizona has been that it is a land of deserte, dotted here and there with rocky and barren districts, and only fertile and fair along the banks of its few rivers and streams. Heat and sand are supposed to be the predominant characteristice, with the incidentals of murdering Apaches making descents from their fastnessee, and marauding Mexicans "lifting" cattle across the border. But as the years advance, and a better knowledge is obtained of the Territory, we find her citizens developing rich mines of gold, silver and copper, and obtaining the most favorable returns from farming her lands. Sixty miles south of Tucson, in Santa Cruz valley, John T. Smith has been farming the Bosque ranch. His returns from the cultivation of 120 acres during the past season were as follows: Potatoes, $1,529.45; cabbages, $472.48; sweet potatoes, $437.22; beans, $824 50; corn, $1,055.20; onions, $720 49; wheat, $278.91; barley, $396.22; lentils, $20.20. Total, $5,734.67. In addition to the above, Mr. Smith has a balance of produce, worth about $400. Of these crops, the cabbage was an almost total failure; the corn, wheat and barley were one-half the usual crops, and the potatoes less than the average. And these returns were obtained while Mr. Smith was contending against sickness. This is but a sample of a number of similar results obtained from cultivating the soil in the almost nnnumbered sections of Arizona favorable for farming.

TRADE REVIEW FOR CALIFORNIA.—The following condensed facts are worth laying away for future reference: Product of wheat in 1875, 20,000,000 centals; wheat and flour exports in 1875, 9,000,000 centals; gold and silver yield in 1875, $90,000,000; gold and silver exports in nineteen years, $749,000,000; wheat and flour exports in nineteen years, 72,650,000 centals; coinage of San Francisco mint in 1875, $32,069,000; coinage of mint from 1854 to Dec. 31st, 1875, $409,398,000; merchandise export values by sea in 1875, $30,555,000; mining stock sales, 1875 (San Francisco board), $220,225,000; lumber product in 1875, 362,000,000 feet; domestic coals received in sixteen years, 2,788,000 tons; wool clip in 1875, 43,500,000 pounds; product of wine for 1875, 8,000,000 gallons; tonnage movement of Central Pacific railroad in 1875, 1,905,731,063 pounds; tonnage movement of Southern Pacific railroad for fiscal year ending June 30th, 1875, 451,854,741 pounds; quicksilver product of California in 1875, 54,000 flasks; deposits in the savings banks of California, $72,500,000; sales of real estate in San Francisco in 1875, $36,000,000; incorporation dividends disbursed in 1875, $28,000,000; increase of immigration in 1875, 64,000 souls; banking capital of the State, $150,000,000.—*San Jose Mercury*.

The Debris Question.

Mr. Berry has introdnced a bill into the Assembly calling for the formation of a commission to investigate the mining debris question. It looks toward a fuller understanding of the question before the adoption of legislative action. The following is the bill:

WHEREAS, The detritus washed from the hydraulic mining claims is filling our river channels, destroying navigation, and irreparably injuring large portions of our valley lands; and whereas, this deposition of detritus is rapidly increasing, threatening greater damage in the fnture, even menacing the existence of some of our cities, towns and villages; and whereas, the great interest involved being the two chief industries of our State, the agricultural and mining, neither of which can be injured without inflicting injury upon the other and upon the State; and in order to enable a future Legislature to act intelligently, and by wise legislation secure a just solution of the subject, and thus avert the danger impending; therefore the people of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Within ninety days after the passage of this Act, it shall be the duty of the Governor of this State to appoint three Commissioners, one of whom shall be a practical mining engineer, one a competent engineer from the agricultural district, and one a competent civil engineer.

SEC. 2. It shall be the duty of the Commissioners appointed in accordance with Section 1 of this act, at each times as they may choose, to visit the principal hydranlic mines upon the headwaters of the Sacramento river, Feather river, the Yuba river, the Bear river, the American river, and such other streame as they may deem necessary, for the purpose of ascertaining the amount of detritus annually discharged, by process of hydraulic mining, into the streams, water-courees, and baye of this State. They shall also collect information as to whether this class of mining is on the increase or decline.

SEC. 3. It shall be the duty of the Commissioners to collect all information attainable by them as to the amount of gold produced from the hydraulic mines, the cost of extracting the same and such other information thereto as they shall deem proper to lay before a legislative body.

SEC. 4. It shall be the duty of the Commissioners to visit the Sacramento, the Feather, the Yuba, the Bear, and the American rivers, and each other streams, water-courses, or bays as they may deem necessary, at different points, for the purpoee of ascertaining, as near as practicable, the hight (?) depth to which the streams visited by them have been filled, the amount of damage done to the lands along and adjacent to the streams, by the deposit of detritus from the mines.

SEC. 5. It shall be the duty of the Commissioners to make approximate estimates of the capacity of the streams for retaining the debris discharged into them, the proportion that passes into tide-water, and each other approximate estimates relative thereto as they shall deem proper to embody in their report.

SEC. 6. It shall be the duty of the Commissionere to suggeet a plan or plans whereby the detritus from the mines may be prevented from finding its way into the rivere and bays, and from being deposited on the valley lands; and for this purpose they shall have the power to make eurveye, take levele, and submit estimates of the probable coet of executing the plan or plane submitted by them. They shall also collect all other information relative to the duties prescribed by this act as may, in their judgment, guide or aid a legislative body in framing [a] law for the abatement of the evils set forth in the preamble to this act.

SEC. 7. It shall be the duty of the Commissionere to compile all the information collected —all estimates, surveys, plane and suggestions —in a brief and concise form, and report the same to the Governor, on or before the 1st day of December, A. D. 1877.

SEC. 8. The Governor shall cause the same to be laid before the Legislature, whenever he shall be notified of its organization.

SEC. 9. Each of the Commissionere appointed under and by virtue of this act, shall receive the sum of —— dollars for all services herein required.

SEC. 10. When the Governor shall receive the report of the Commissioners, herein provided for, he shall certify that fact to the Controller, whereupon the Controller shall draw his warrant upon the State Treasurer for the same; and the Treasurer shall pay the warrant thus drawn out of any moneys in the Treasury not otherwise appropriated.

SEC. 11. This act shall take effect and be in force from after its passage.

A BILL has been introduced in Congress declaring the Reading military reservation, in Shasta county, California, subject to pre-emption and homestead entry.

A Uniform System of Reclamation.

L. C. McAffee, swamp land engineer, writes a letter to the *Alta* concerning the need of a system of operation in reclaiming the tule lands, which shall be based upon correct scientific principles. He says: Uniformity must also be determined from an elevated view. The conflict of various districts, as well as the various parts of one district, must be considered, and individual interest must bend to the general good. Nevertheless, all should have a hearing, so that justice may be impartially administered. It is evident that mere enactments of Legislature cannot meet the requirements of the case. No law could reach all points of any one scheme, much less of all of them. The experience of other countries has created a Board of competent persons—engineers and others—to whom all matters regarding the ways and means of reclamation are referred. In Holland, the authority of this Board is almost absolute, and the thoroughness of the works under their charge is satisfactory evidence of the wisdom of the system of administration. Without further discussing the proposition at this present time, the writer would suggest, in view of any legislation by our representatives now in session, that a State Board of Engineers be created, to whom all plans of reclamation and drainage shall be submitted, and that additional power be granted them to adopt a system of reclamation for the entire State, to which all districts must conform.

It must not be understood that new laws for our districts, as they now stand, are here advoted. Quite the contrary. The laws regulating the individual and iuternal action of our swamp land districts are eminently practical and efficient. An attempt at improvement would be hazardous. What is now proposed to do is to advance a step further in legislation and fuse into unity, or, at least, uniformity, the methods now permitted by our statutes.

General News Items.

FRASER river is reported full of floating ice.

ADMIRAL Stringham, of the U. S. navy, is dead.

THE trial of Gen. Babcock is in progress in St. Louis.

THE Coos Bay Union coal company is reported insolvent.

MRS. THOMASSEN, the wife of the Bremerhaven dynamite fiend, has arrived in New York.

GOVERNOR IRWIN has appointed W. B. C. Brown State Controller, vice Mandeville, deceased.

IT is reported that one million dollars in silver is now en route from San Francisco to London.

THOMAS OGG SHAW has been appointed a Centennial Commissioner by the California State Agricultural Society.

IT is rumored that seven packages of gunpowder were discovered among the coal on a steamer about to sail from Antwerp last week.

THE postal telegraph bill has made its reappearance in Congress, having been introduced in the House by Representative Luttrell.

SEVENTY corpses have so far been recovered from the Jabin colliery, Belgium. The earth is constantly falling in, and the search proceeds slowly, under circumstances of great danger.

THE Great World's Fair Exhibition lottery company, of New York, is in straitened circumstances, and its personal property has been seized by the sheriff.

THE detail for the court martial for the trial of Pay Inspector Spaulding is published. Rear Admiral Rogers will preside, and A. A. Hagner will act as Judge Advocate.

THE Supreme Court of the State has rendered a decision exempting mortgages from taxation, and this, it is said, cuts off about $200,000,000 of taxable property.

A THEATRICAL performance at the Drury Lane theater, in London, last Saturday afternoon, for the benefit of the Centennial fund, realized $2,000, and $1,000 in addition was contributed to the fund by American actors now in London.

THE International Committee on construction of a submarine tunnel between France and England terminated their labors. They are agreed as to the entire practicability of the undertaking.

THE sub-committee of the House Committee on Pacific Railroads has recommended to the full committee to report favorably on the Texas Pacific railroad bill. This is considered a signal victory by Col. Scott and his friends.

JEFF DAVIS has written an elaborate letter in reply to charges made by Blaine in his speech on the Amnesty bill, charging him, Davis, with responsibility for the sufferings of Union prisoners at Andersonville.

THE alumni of the University of California have offered two prizes of $50 each to be given to the members of the class of 1876. By mutual agreement these prizes will be awarded on the following basis: Fifty dollars for the best thesis in the College of Science; fifty dollars for the best thesis in the College of Letters, either in the classical or literary course.

If every one of our readers would try Dobbins' Electric Soap (Sold by Newton, Bros. & Co., San Francisco,) they would, like us, become wonderful believers in its wonderful merit. Have your grocer order it.

Homestead Law.

According to Washington telegraphic dispatches, the United States Senate has adopted a homestead bill which provides "that all pre-emption and homestead entries in compliance with any law of the United States, of public lands, made in good faith by actual settlers upon tracts of land of not more than 160 acres each, within the limits of any land grant prior to the time when notice of withdrawal of lands embraced in such tract was received at the local land office of the district in which such lands are situated, or after their restoration to market by order of the General Land Office, and where the pre-emption and homestead law has been complied with and proper proofs thereof have been made by the parties holding such tracts or parcels, they shall be confirmed, and patents for the same shall issue to the parties entitled thereto."

Hon. H. F. Page is endeavoring to get the House Public Lands Committee to add to the Senate bill about homestead and pre-emption entries within railroad limits a new section, to enable settlers to save their lands from railroad companies. The proposed amendment is to provide in substance that settlers on Mexican grants subsequently rejected and within exterior limits of railroad grants may purchase them from the government at the minimum of $1.25 per acre. The committee heard Page on the question, and expressed themselves unanimously in favor of this proposition as an independent proposition, but they were somewhat afraid that it would embarrass the bill or delay its final passage if sent back to the Senate.

The section submitted by Mr. Page, says the Stockton *Independent*, refers to the lands embraced within the limits of what is known as "The Moqnelemos or Pico grant," located in San Joaquin county, and bounded by the Mokelnmne river on the north, the range line between ranges seven and eight on the east, the Calaveras river on the south, and the swamp land segregation line on the west.

IN the contested case for the posseession of 7,200 acree of pueblo lands, known as the survey of the Los Huecos *vs.* The City of San Jose, the Secretary of the Interior has made a decision adverse to the defendant, and in favor of the survey of the rancho. This decree will have the effect of ousting a large number of settlers who obtained their titlee from the San Jose authoritiee.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

NO AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington D. C., Feb. 8th, 1876.

FOR WEEK ENDING JANUARY 25TH, 1876.*

FEED WATER HEATERS AND PUMPS.—John A. T. Overend, S. F., Cal.

DRYING APPARATUS.—John W. Cassidy, Petaluma, Cal.

RAMIE MACHINE.—Charlee C. Coleman, S. F., Cal.

FAUCET.—Wm. F. Kells, S. F., Cal.

MACHINE FOR MAKING WINDOW SHADES.—Morris Lachman, S. F., Cal.

TIRE TIGHTENERS.—Adoniram I. Packard and Charlee P. Harris, Hill's Ferry, Cal.

SUSPENDER CLASPS AND BUTTONS.—A. J. Vandrake, S. F., Cal.

HARROW.—Barden W. Taylor, Roseville, Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

The Scandinavian and German Immigration and Employment Office,

610 Merchant Street, near City Hall, S. F.

Since July, 1875, consolidated with the old California Labor Exchange, established in 1868. Located in the business center of San Francisco, with agents in the East and the mother countries of Europe, and mastering all the principal European languages, we have unsurpassed facilities for complying with any demand on us for male and female help in any capacity and of any nationality, at reasonable terms. A lady attends to the female department. Scandinavian, German, French and American help our specialty. We can furnish farmers with any number of Scandinavian and German help, if timely notice is given. Hotels and private families supplied with French and German waiters. When female help is wanted in the country, the remittance of the passage money in advance is indispensable. Your orders will be filled promptly and conscientiously if addressed to

V. de BRETTEVILLE & CO.,
[P. O. Box 1436.] San Francisco, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, February 9, 1876.

The general course of trade the past week has been quiet. The skies which cleared clouded again and the storms have been severe and wide-reaching.

Wheat shows signs of improvement. The cable has started upward a little, as will appear by our weekly record.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices.

	Cal. Average	Club.
Thursday	10s —@10s 3d	10s 5d@10s 10d
Friday	10s —@10s 3d	10s 5d@10s 10d
Saturday	10s —@10s 3d	10s 5d@10s 10d
Monday	10s —@10s 3d	10s 5d@10s 10d
Tuesday	10s 2d@10s 4d	10s 6d@11s —
Wednesday	10s 2d@10s 4d	10s 6d@11s —

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	13s 4d@13s 8d	13s 8d@13s 10d
1875	9s 2d@ 9s 4d	9s 6d@10s —
1876	10s 2d@10s 4d	10s 6d@11s —

The *Mark Lane Express* weekly review of the European grain trade, transmitted by cable February 7th, is as follows:

"The weather has been muggy and unfavorable to trade. Prices generally have declined about a shilling per quarter in consequence of deteriorated condition. Home deliveries are still short, compared with last year. Business has been heavy, and imports rather less, and they will probably continue to diminish until prices improve. At Paris flour declined a franc. In Germany the markets have rather improved, while in Belgium and Holland they are unchanged."

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Weekly Receipts of Domestic Produce.

Articles.	Week Jan. 19.	Week Jan. 26.	Week Feb. 2	Week Feb. 9.
Flour, quarter sacks	58,530	10,024	53,501	42,600
Wheat, centals	185 543	73,998	105,672	262,148
Barley, centals	5.491	7,948	7,416	25,377
Beans, sacks	1,023	264	1,012	679
Corn	139	2,690		728
Oats	6,746	12,454	7,875	1,500
Potatoes, sacks	7,053	6,577	10,133	9,460
Onions, sacks	1,295	770	705	1,424
Wool, bales	162	158	62	65
Hops, bales	126		45	31
Hay, bales	1,179	994	6,858	3,501

Bags—Bags are unchanged. We hear of no transactions of account, although there is some inquiry concerning values.

Barley—There is an increased inquiry for lots suitable for shipment East, and prices are a shade better. Sale of 560 sks fair Feed, $1.25; 600 do good do, $1.27½; 1,500 do Brewing, for the East, $1.30; 500 sks light bay Chevalier, $1.30; 1,500 do Coast Feed, $1.25; 200 do Bay do, $1.27½; 1,000 sks good Bay Feed, in two lots, $1.27½ 600 do good Chevalier, for Reno, $1.40; 800 do do for the East, $1.40; 225 sks choice Bay Feed. $1.27½; 400 do good Coast do, $1.25.

Beans—Beans are firm and have a vanced in price, as shown in our tables below.

Corn—We note sales of corn as follows: 400 sks good Yellow, $1.27½; of other kinds, 400 do, $1.27½; 395 do, $1.25; 170 do, $1.32½. The arrival of 4,500 sks by steamer *Ancon* has weakened the market.

Dairy Produce—Butter is quotable generally at an advance of 2½c over last week. Eggs have also advanced a similar amount. There is now great fluctuation in Eggs; the price changing as much as 7c in one day. It is hardly probable that the prices we give can be realized long, but they are true at this date.

Feed—Feed is unchanged. There are some supplies of Hay which has been badly soaked which sell low, but the range for good is as last week. We note sales 35 tons poor Stock, $12.50 per ton; 40 do choice Wheat, $19.50; 10 do, at depot, $20; 27 tons ordinary to good Volunteer, $13.25@15; 39 do fair Volunteer Wheat, $14.75.

Fresh Meat—Fresh Beef is in moderate supply and prices firm. Mutton is weak, with large supplies at hand. Pork is in light supply and firm at quotations.

Provisions—Bacon and Lard are firmer. Eastern Hams are scarce, by reason of the railway blockade. There are at least 40 carloads of Eastern Hams delayed by the snow.

Hops—Hops are still dull in this market. Emmett Wells' review of the New York market for the week ending January 28th is as follows:

"The scarcity of fine Hops, and the continued heavy shipments abroad has put the price up one cent per lb. this week, 16 cents being now the figure paid for choice State Hops; it would not be surprising to see a further material advance should this export movement continue a few weeks longer, as supplies are getting very short both here and in the interior, especially of fine shipping Hops. Messrs. Lilienthal Bros. & Stern, commission merchants, 34 Broadway, this city, have in store, and under offer, 400 bales of the famous 'Willow Grove' growth of California Hops, for which they ask 20 cents per lb.; this noted brand of Hops fully maintains the reputation it has always enjoyed of being the largest and finest growth in the country; the goods, for the present, are offered in bulk only, the holders declining to break the lot. A bid of 18 cents per lb. for the lot has been declined."

Oats—The recent heavy arrivals from Oregon have weakened the market somewhat. Sale of 100 sks good Feed, $2.20; 87 do choice Surprise, $2.30; 180 do choice Oregon, $2.30.

Potatoes—Supplies of Potatoes are large and the feeling is weaker. We note sales: 1,000 sks Petaluma, in lots, at $1.45@1.50; 150 do do, $1.50@1.55; 300 sks Pigeon Point, $1.50@1.60, mostly at the former; 600 sks good Petaluma, $1.50. Petaluma and Tomales are selling at $1.40@1.55 per ctl; 400 sks choice Petaluma, $1.60.

Onions—Sales have been made as follows: 25 sks fair Union City at $1.87½; 230 sks good to choice Union City at $1.87½@2; 160 sks choice Union City at $2; 200 do good to choice do, $1.75@2 per ctl.

Poultry and Game—The supply of Poultry is less and we advance quotations.

Wheat—Quotations for Wheat are as yet unchanged. We note sales as follows; 1,500 sks ordinary Shipping, $1.85; 1,200 do good Milling, $1.92½; 400 do choice do, $1.95; 1,600 ctls Milling. $1.92½; 500 do, $1.95; 5,000 sks choice Milling at $1.95; 300 do do, part silver, $1.97½; 5,000 ctls choice Milling, $1.95; 2,000 do Shipping, $1.90 per ctl.

Wool—Wool in this market is stationary. The following are the telegraphed Eastern markets:

New York, Feb. 5.—During the week has been unusually quiet, owing, in a great measure, to the unexpected failure of the seamless cloth compauy, of Mattewan, Duchess county, with lisbilities nearly $500,000. For two weeks previous to this failure the market presented a very favorable appearance, and everythiug pointed toward an extensive trade during the remainder of the season; but the failure, coming as it did, once more causes a feeling of uncertainty to prevail, and leck of confidence is again visible almost everywhere. The principal proprietor and manager of the concern had been speculating in California Wool for some time back, and is said to have netted heavy losses in it. There has been no material change in values, as stocks are unusually light, if the supply of fell Texas is excepted, and holders in consequence firmly demand the ruling rates. Fall California has attracted some attention, caused by the extremely low prices that prevail. Most of the supply, however, consists of inferior grades. Spring is quiet, as but few choice lots remain unsold. Sales for the week are 15 bales Cape at 37½c; 30,000 lbs Australian at about 46c; 20 bags domestic Noils, 70c; 61,000 lbs spring California, 23¾@25½c for slightly burry, and 31c for free; 18 bags scoured do, 65c; 170,000 lbs fall California, 17@19½c; 140 bags scoured do, 58c; 1,000 lbs black do, 25c; 10,000 lbs pulled do, part at 32c; 6,000 lbs Oregon, 32c.

Boston, Feb. 5.—During the week a fair average business has been transacted, and the market is quite steady for all descriptions. There is no pressure to buy or sell, most of the manufacturers purchasing only as their immediate wants require. Transactions in fine Wools are quite small, and prices remain unchanged. Combings and Delaine Fleeces are in moderate request; stocks are small, but as worsted goods are not so much sought after, the consumption has fallen off, and the supply is quite equel to the wants. Sales of the week include 96,000 lbs, mostly washed combing aud delaine at 50@56c. The demand for California Wool continues without abatement, the sales of the week comprising 419,000 lbs, 25@27c for fall, and 21@36c for spring. Prices remain quite steady, and from the large trausactions for some time past, manufacturers evidently look upon California Wool as the cheapest on the market. Since January 1st sales of California Wool have been 1,875,700 lbs. Pulled Woole continue to meet with a steady demand; the sales of the week were 214,000 lbs, principally from 40 @47c for super and X.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., February 9, 1876.

BEANS.

Bayo, ₱ ctl	3 25@	3 50	
Butter	1 75@	2 25	
Pea	1 75@	1 90	
Pink	2 00@	2 25	
Sm'l white	1 70@	1 85	

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	30	@	32½
Point Reyes	32½@		35
Firkin	30	@	32½
W'st'n Reserve	15	@	20
New York	25	@	27½

CHEESE.

Cheese, Cal., new	14	@	16
do Old	14	@	17
Eastern	16	@	20

EGGS.

Cal. fresh ₱ doz	37½	@	40
Ducks'	—	@	35
Oregon	30	@	35
Eastern	30	@	32½

FEED.

Bran, per ton	—	@	22 50
Corn Meal	29 00	@	30 00
Hay	15 00	@	19 00
Middlings	32 50	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	— 65	@	70

FLOUR.

Extra ₱ bbl	5 75	@	6 12½
Superfine	4 75	@	5 00

FRESH MEAT.

Beef 1st quality ₱	7	@	8
Second do	6	@	7
Third do	5½	@	6
Spring Lamb	—	@	15
Mutton	5	@	6
Pork, undressed	6½	@	6¾
do, dressed	8¾	@	9
Veal	5	@	7
Milk Calves	8	@	8½

GRAIN, ETC.

Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Chevalier	1 30	@	1 50
Corn, White	1 05	@	1 10
do Yellow	1 12½	@	1 30
Oats	2 00	@	2 25
Rye	1 50	@	1 55
Wheat shipping	1 85	@	1 90
do milling	1 90	@	1 95

HIDES.

Hides, dry	15	@	16½
do, wet salted	7	@	7½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	18	@	22½
do Strained	6	@	12½

HOPS.

New crop	10	@	12

NUTS—Jobbing.

Almonds, shell	8	@	10
do, soft shell	16	@	20
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts, per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	1 00	@	1 37½
Stockton	50	@	1 00

POTATOES.

Petaluma	1 40	@	1 50
Salt Lake	1 65	@	1 70
Sac River	1 10	@	1 30
Humboldt	1 25	@	1 50
Early Rose	—	@	2 50
Sweet	—	@	3 37½

POULTRY & GAME.

Hens, per doz	8 00	@	9 00
Roosters	9 00	@	10 00
Broilers	7 00	@	8 00
Ducks, tame, doz	10 00	@	11 00
do Mallard	3 00	@	4 00
do Canvass	4 00	@	4 50
Geese, per pair	2 50	@	4 00
Wild Gray do	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	18	@	20
do Dressed	18	@	23
Quail, per doz	1 10	@	1 75
Snipe, Eng., doz	1 50	@	2 00
Doves, per dozeo	50	@	75
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	3 00

PROVISIONS.

Cal. Bacon, L'ght	15	@	15½
do Medium	14	@	14¾
do Heavy	14	@	—
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'n Should's	—	@	10
Hams, Cal.	14	@	14½
do Armour	16½	@	17
do Worster's	17	@	17½

SEEDS.

Alfalfa, Chile lb	8½	@	11½
do California	11	@	14
Canary	—	@	20
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxeed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perenuia do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do. Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy do	11	@	13

TALLOW.

Crude	6½	@	7½
Refined	8¾	@	9

WOOL, ETC.

FALL—			
Seedy	11	@	12½
Choice free	12	@	18
Burry	9	@	11
Oregon	—	@	—

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18 00
Rough refuse, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refuse, M	20 00
Rustic, refuse, ₱ M	32 50
Rustic, refuse, ₱ M	24 00
Surfaced, ₱ M	30 00
Surfaced refuse, ₱ M	20 00
Flooring, ₱ M	28 00
Flooring, refuse, ₱ M	20 00
Beaded flooring, ₱ M	30 00
Beaded floor, refuse, M	25 00
Half-inch Siding, M	22 50
Half-inch siding, ref, M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf, ref., M	18 00
Half-inch Battens, M	22 50
Pickets, rough, ₱ M	13 00
Pickets, rough, p'ntd	16 00
Picketa, fancy, p'ntd	25 00
Shingles, ₱ M	3 00

PUGET SOUND PINE — Retail Price.

Rough, ₱ M	22 50
Fencing, ₱ M	22 50
Flooring and Step, ₱ M	32 50
Flooring, narrow, ₱ M	35 00
Flooring, 2d quality, M	25 00
Laths, ₱ M	3 50
Furring, ₱ lineal ft	— —

REDWOOD—Retail.

Rough, ₱ M	22 50
Rough refuse, ₱ M	18 00
Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, ₱ M	30 00
Siding, ₱ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ₱ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₱ M	40 00
Battens, ₱ lineal foot	¼
Shingles ₱ M	3 2

GENERAL MERCHANDISE.

WHOLESALE.]

Wednesday M., February 9, 1876.

BAGS.

Eng. Stand Wht	10½	@	11
Neville & Co'e Hand Sewed	10½	@	11
24x36	11	@	11½
24x40	12	@	12½
Machine do 24x40	12	@	12½
" " 23x40	11¾	@	11½
" " 22x40	11	@	11¼
" " 22x36	9½	@	10
Flour Sacks ½s	9½	@	11
" " ¼s	6¼	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¾	@	14½
do 45-in	8½	@	9
do 40-in	7½	@	8
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	18
eingle seam no.	—	@	—
Bean Bage	7½	@	8
Barley Bage 24x36	11¾	@	12
do 23x40	11½	@	12
do 24x40	12	@	12½
Oat Bags, 24x40	12	@	12½
do 28x36	—	@	13½
Detrick's "E. W."	9½	@	10
do "E"	—	@	9½

CANNED GOODS.

Aest'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Picklee ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Anetralian, ₱ ton	—	@	9 00
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	—	16 @	— 18
Mt. Diablo	6 25	@	8 25
Lehigh	—	— @	22 00
Liverpool	10 00	@	11 00
Weet Hartley	—	— @	14 00
Scotch	9 00	@	11 00
Scranton	13 00	@	16 00
Vancouver's Isl	10 50	@	13 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Coeta Rica per lb	22½	@	—
Gnetemala	—	@	22½
Java	—	@	31
Manilla	—	@	21½
Ground in ce	25	@	—
Chicory	27	@	—

FISH.

Sec. Dry Cod, new cases	4	@	4½
do bonelees	6	@	6½
Eastern Cod	8½	@	10
Salmon in bbls	7½	@	8
do ½ bbls	8 50	@	9 00
do 2lb cans	4 50	@	5 00
do 1lb cans	2 25	@	2 30
do Col. R. ½h	1 25	@	1 30
Pick. Cod, bbls	5 00	@	5 50
do ½ bbls	2 00	@	—
Mack'l, No. 1, ½bls	1 00	@	1 00
" Extra	9 00	@	11 00
" in kits	12 00	@	12 00
" Ex mess	1 90	@	2 00
" Ex mess, ½hs	3 00	@	3 50
Pic'd Herr'g, hx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

HARDWARE.

Amoskeag handled Axes $16@17; do unhandled do $13@14—less 50c in 5 case lots.

Amoskeag Hatchets, Shingling, No 1, $7.25; No. 2, $8; No. 3, $8.25. Do do, Claw No. 1, $7.75; No. 2, 8.50; No. 3, $9.25—less 10 per cent.

Locks, Yale Lock Mf'g Co., discount 33⅓ per cent. from list.

Planes, Ohio Tool Co., discount 30 per cent. from list.

Am. Tack Co's Cut Tacks 72½ per cent. discount and 5 per cent. extra. Finishing and Clout Nails, 50 per cent. off list; 3d fine Nails $7.00 per keg. Ohio Butt Co'e Loose Joint Butts 50 per cent. do Fast, 35 per cent off list.

Machine Bolts, 20@35 off.

Square Nuts, 2@3c off list.

Hexagon Nuts 2@3c off list.

Wrougbt Iron Washers, 2@3c off list.

Lag Screws, 15 per cent off list.

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@	2 25	
Cement, Rosendale, do	2 75@	3 50	
do Portland do	4 75@	5 50	
Plaster, Golden Gate Mills	3 00@	3 25	
Land Plaster, ₱ ton	10 00@	12 50	

MISCELLANEOUS.

Pulu	—	@	9

NAILS.

Assorted size, lb	3 75	@4 00	

OILS.

Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@1	25
Baker's A A	—	@1	40
Cocoanut	55	@	60
Olive Plagniol	5 50	@5	75
do Poseel	4 75	@5	00
Palm lb	9	@	—
Linseed, raw	80	@	—
do boiled	—	@	75
China nut in ce	70	@	75
Sperm, crude	—	@1	40
do bleached	1 90	@2	25
Coast Whalee	47½	@	50
Polar, refined	—	@	—
Lard	—	@	—
Oleophine	—	@	28
Devoe's Bril't	—	@	—
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel kerosene	23	@	25
Olive	—	@3	50
Downer Kerosee'e	40	@	—
Elaine	40	@	—
Gas Light Oil	23	@	25

PAINTS.

Pure White Lead	9¾	@10	1¼
Whiting	—	@	2
Putty	4	@	5¼
Chalk	—	@	2½
Paris White	2¾	@	—
Ochre	3	@	5
Venetiau Red	3½	@	5
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion		—@1	25

Averill Chemical Paint, per gal.

White & tints	2 00	@2	40
Green, Blue & Ch Yellow	3 00	@3	50
Light Red	3 00	@3	50
Metallic Roof	1 30	@1	60

RICE.

China No. 1	6 00	@6	25
Hawaiian, ₱ lb	—	@	8
Caroline, ₱ lb	10	@	

SALT.

Cal. Bay, per ton	10 00@14		00
do Common	5 00@	7	00
Carmen Island	12 00@15		00
Liverpool fine	22 50@25		00

SOAP.

Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	—	@	10

CANDLES.

Graot's	16½	@	17
Mitchell's	20	@	22

SPICES.

Clovee ₱ lb	45	@	47½
Caeeia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	1½
Pimento	16	@	17
Gr'nd Allspice	12	@1	12½
do Caseia do	—	@1	50
do Cloveo do	—	@1	50
do Mustard do	—	@1	20
do Ginger do	—	@1	00
do Pepper do	—	@1	00
do Mace do	—	@2	00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12¾
Circle A crusned	—	@	12½
Powdered	—	@	12¾
Fine crushed	—	@	12¾
Granulated	—	@	11½
Golden C	—	@	11
Hawaiian	10	@	11
Cal. Syrup in kge	—	@	70
Hawaiian Molasees	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formoea	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@1	00
Gunpo'der, Cant.	75	@1	00
do Pingsuey	50	@	90
do Moyune	65	@1	25
Y'ng Hy., Canton	28	@	40
do Pingeuey	40	@	70
do Moyune	65	@	65
Japan, ½ obests, hulk	30	@	75
Japan, lacquered bxe, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxe	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ¼ & 1 lb paper	30	@	55

TOBACCO—Jobbing.

Bright Navys	50	@	65
Dark do	50	@	55
Paces Tin Foil	—	@	75
Gregory	70	@	—
Dw f Twist	65	@	75
Light Pressed	70	@	80
Hard do	50	@	60
Conn. Wrap'r	40	@	60
Penn. Wrapper	20	@	45
Ohio do	15	@	20
Virgi'a Smok'g	45	@1	00
Fine ot che'g, gr	8 50	@9	50
Fine cut chewing, buc'ts, ₱ lb	75	@	
Banner fine cut	—	@9	00
Cal Smoking	37	@1	00

TURPENTINE.

Easteru	51½	@55	

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday M., February 9, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	15 00@	35	00
Tabiti, do	—	—@—	—
Cal. do	15 00@	40	00
Limee, Mexican, ₱ M	7 50@	10	00
Malaga Lemone, ₱ bx	12 00@	14	00
Cal. ₱ 100	1 50@	3	00
do Sicily ₱ b'x	12 00@	14	00
Bananae, ₱ bnch	2 50@	4	00
Cocoanute, ₱ 100	7 00 @	9	00
Pineapples, ₱ doz	7 00 @	8	00
Applee, ₱ box	1 00 @	1	25
do Choice	2 00 @	—	
Blackberrice	— @	—	
Figs	— @	—	
Huckleberries	— @	—	
Strawber'ries, lb	—@	20	00
Pomgranates	— @	—	
Raeqberries	— @	—	
Currants, ₱ ch	— @	—	
Quinces ₱ bx	— @	—	
Cranberries ₱ bbl	13 00@	14	00
Peaches, ₱ bx	— @	—	
Pears, ₱ bx	75 @	1	00
do Choice	2 00 @	3	00
Crab apples, ₱ bx	— @	—	

DRIED FRUIT.

Applee, ₱ lb	7½ @	9	
Pears, ₱ lb	8 @	13	
Peaches, ₱ lb	12 @	13	
Apricots, ₱ lb	14 @	15	
Plums, ₱ lb	7 @	8	
Pitted, do ₱ lb	18	@	20
Raisins, imported	3 25	@	3 75
Cal. Raieins	8	@	12½
Black Figs, ₱ lb	5	@	10
White, do	8	@	10
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus	—	@	—
Beets	—	@	—
Cabbage, ₱ 100 lbs	75	@1	00
Carrots, per ton	10 00@	12	00
Cauliflower, doz	50	@1	50
Celery, doz	50	@	75
Garlic, ₱ lb	—	@	8
Green Peee	—	@	10
Green Corn ₱ doz	—	@	—
Sum'rSquash ₱ box	—	@	—
Merro'fat Sq'sh, tn	—	@1	50
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Parenipe	—	@	—
Shell Beans	2	@	3
Peppers, green, bx	75	@1	00
Okra	4	@	5
Cucumbers, ₱ box	1 25	@1	75
Tomatoes, box	1 00	@	1 50
Egg Plant, bx	—	@	—
Rhubaro	—	@	—
Lettuce	—	@	—
Turnipe, pr ton	—	@	—
Mushroome, lb	8	@	10

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Charles Sutro & Co.]

San Francisco, February 9, 3 P. M.

Legal Tenders in S. F., 11 A. M., 88⅜ to 89¼.

Gold in N. Y. 112⅞.

Gold Bars, 900. Silver Bars, 7½ and 8 per cent. discount.

Exchange on N. Y., 60-100 per cent premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five franoe per dollar; Mexioan dollars, three to five per cent. discount.

London — Consols, 93 to 93⅛; Bonds, 102¼

Quicksilver in S. F., by the flask, per lb, 72½@75c.

S. F. RETAIL MARKET RATES.

Wednesday, M., February 9, 1876.

POULTRY, GAME.

Chickens	75	@1	00
Hens	75	@1	00
Eggs, Hens	55	@	60
do Ducks'	—	@	60
do Farallones	—	@	—
Turkeys, ₱ lb	20	@	25
Ducks, each	1 00	@1	25
Geese, wild, pair	50	@1	00
Tame, ₱ pair	2 00	@4	00
Snipe, ₱ doz	1 25	@1	50
do English	—	@3	00
Quail, per dozen	75	@2	00
Prairie Ch'k e, pr	—	@	—
Hares, each	25	@	50
Rabbits, each	15	@	20
Squirrels do	—	@	15
Beef, tend, ₱ lb	15	@	18
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	—	@	15
Porter House St'k	—	@	20
Sirloin do	12	@	15
Round do	8	@	10
Pork, rib, etc., lb	12	@	12½
Chops, do, ₱ lb	15	@	—
Veal, ₱ lb	10	@	15
Cntlet, do	15	@	25
Mutton-chope, lb	10	@	12
Leg Mutton, ₱ lb	10	@	12½
Lamb, ₱ lb	20	@	25
Antelope	15	@	20
Tongues, beef	75	@1	00
do, do, smoked	75	@1	00
Tongues, pig, lb	12½	@	—
Bacon, Cal., ₱ lb	16	@	20

FISH, MEATS, ETC.

Flounder, ₱ lb	15	@	35
Salmon, ₱ lb	15	@	25
Smoked	—	@	8
Rook Cod, ₱ lb	15	@	—
Cod Fieh, lb	12	@	15
Perch, lb	15	@	—
Lake Big. Trout	—	@	30
Smelts, ₱ lb	10	@	12½
Herring, Sm'kd	75	@	—
do freeh	—

The Swine Yard.

Management of Brood Sows.

It is not a commendable practice to allow brood sows to run with other swine until the later part of the period of gestation, and then place each one in a pen by herself, for the reason that when thus confined alone, sows will manifest so much uneasiness as to superinduce premature farrowing. The usual time for gestation in sows embraces a period of about sixteen weeks. It is an unusual occurrence for a sow to exceed or to fall short of this period. Hence, her proprietor can calculate with almost unerring certainty as to the time when a sow will farrow. With proper management, a sow will seldom lose any of her pigs. On the contrary, if she is treated injudiciously, she will be liable to lose all her pigs and suffer injury herself. Four to six weeks prior to farrowing, every sow should be separated from the herd and provided with a comfortable pen and sleeping apartment. If she can have the advantage of a small yard, all the better. The quiet range of a field will be better still. When the pen is a large one and the weather cold, let one corner—say sixty feet square—be partitioned off, leaving only a narrow entrance. When the corner of a large pen is not thus boarded off, the cold wind and driving storm will sometimes whirl around in the apartment and render a corner more uncomfortable than some other point near the entrance.

In many instances, sows are allowed to accumulate bedding until a deep hollow about the size of the body is formed. Such a bed is exceedingly objectionable for a brood sow, for the reason that young pigs will be liable to get smothered beneath the dam when she lies down. Weeds and long straw should not be allowed in the bed of a brood sow. In some instances, a generous supply of long straw is placed in the sow's sleeping apartment, around which shelving six or eight inches high from the floor is attached to the sides of the pen, so that the little pigs may escape beneath the shelving when the dam is about to lie down on any of them. But a far better way than this is to clear away all the long straw and make the bedding of a few basketfuls, of coarsely cut straw. Young pigs will never become entangled in such bedding. Brood sows should always be cared for by one person only, so far as it may be practicable. The danger is from over-feeding more than all things else. Whole grain for brood sows is one of the most objectionable sorts of feed that a sow can be supplied with, because such food will lie heavily in the stomach, producing fever, inflammation and a morbid desire for some change of diet which often induces a sow to devour her young pigs. For several weeks prior to farrowing, a sow should be fed on cooked meal and milk, which should be continued for some time after this period. If potatoes and roots are given, they should be cooked before they are fed. If a sow has not the advantage of a yard, make it convenient to turn her out an hour or two every day into grass. If a farmer always has a few lengths of portable fence about his premises he will find it handy on many occasions. He can fence in a few rods of grass for pigs, calves, or lambs as required. After ten or twelve days the pigs can be let out with the sow. Frequent feeding is better for the sow than one or two large feeds per day. If she is weakly or seems to have too many pigs for her milk, make a mash of whey and bran, or skimmed milk, meal and bran, and let the pigs learn to eat as soon as they will come to the trough. After the sow has become strong, and her udder exhibits no signs of fever, it will be safe to feed her three times a day, all she will eat of cooked meal, milk and slop. During cold weather, when sows cannot have access to the ground nor to grass, it is an excellent practice to pass some hay and cornstalks through a fodder cutter for them; such course and bulky feed will distend the stomach and bowels and keep the system in healthy condition.—*Practical Farmer.*

Extracting Oil from Roses.—The process of extracting oil from roses, which is known as the costly and delightful perfume attar of roses, is very simple. It is carried on extensively near Adrianople and the Kezanlik valley, in Roumelia. Three pounds of the flowers produce but one pound of attar. The appliances are a copper kettle ending in a narrow neck, to which a condensing tube is affixed, and containing about 250 pounds of water to 25 pounds of rose leaves. The first distillation produces rose water; this distilled a second time yields an essence on which the pure oil floats. This is skimmed off in minute quantities and preserved in tight bottles for sale. An average production is 1,500 pounds in one season. The flowers are picked from April to June. Very little pure attar is to be procured, the dealers in this article, as in some others, pretending to believing the pleasing fiction that consumers would rather have the adulterated one.

A Monster Boiler.—The largest soap boiler in the world, probably, may be seen at Babbitt's soap works, corner of West and Washington streets, New York. It is made of wrought iron, and will hold 1,200,000 pounds of soap. It was built in 1872, and is constructed of wrought iron. It extends from the ground floor of the building up through five stories, and is quite a curiosity in its line.

Nurserymen.

1865. 1875

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale of small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	28	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	38	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	10	—	Fortille de Pallien	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,

P. O. Box, 722. 516 Battery Street.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

RIVER BANK NURSERY,

San Jose, Cal.

Established - - - - 1855.

FRUIT AND ORNAMENTAL TREES in great variety. Choice and Rare Variety of EVERGREENS, SHRUBS, ROSES, BEDDING PLANTS, PALMS, MAGNOLIAS, FERNS, TUBEROSES, GLADIOLAS, Etc., with general collection of Greenhouse Plants, Hanging Baskets, Etc.

Nursery and Greenhouses, corner Berryessa road and 12th street, two blocks from terminus of North Side horse railroad. Address

L. F. SANDERSON,

Nurseryman and Florist, San Jose.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus)
Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgeau and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Luisante.

Chestnut: Marron de Lyon and Combale.

Walnut: Preparturieus. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

BLUE GUM TREES.

400,000 For Sale. Price from $10 to $45 per 1,000. Also a fine stock of Ornamental Trees, Etc.

Main Depot, 118 East 12th street, Oakland. Branch Depot, Market street, opposite new City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

BAILEY & CO.,

Box 80, Oakland, Cal.

FOR SALE—BLUE GUM TREES.

The undersigned has the pleasure of announcing to those contemplating planting largely this season, the nursery stock of the well known Gum Tree Farm at $15 per thousand, nursery price. The young stock is exclusive, ranging in hight from 8 inches to 1½ feet, specially grown for Forest Culture. Address, ISAAC COLLINS, Haywood, Alameda Co., Cal. Nursery situated on Redwood road, 1½ miles from Haywood.

E. S. LEE & CO'S

Illustrated and Descriptive Circular of

WATERS'

Improved Tree Pruner

For 1876,

Will be mailed free to applicants. We offer large discounts to Jobbers and Hardware Dealers. Receives first premium at all fairs where shown.

Price of 4 ft. pole.....$2 50
" 6 ft. pole..... 2.75
" 8 ft. pole..... 3.00
" 10 ft. pole..... 3.25

Manufactured only in Rochester, N. Y.

---

50 Visiting Cards, with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

W. R. Strong, Seedsman. Established 1857. 1876. Robt. Williamson, Nurseryman, Established 1865.

W. R. STRONG & CO.

SEEDS. TREES.

San Francisco Office, 418 & 420 Clay Street. Sacramento Office, 8 & 10 J Street.

Nursery Grounds, Sacramento County.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, - - W. R. Strong & Co.
House in San Francisco, - - Strong & Williamson.

P. S. Alfalfa, Chile grown, 7 to 11c; California, 11 to 15c, as per quantity and grade Guaranteed fresh and genuine.

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

☞My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,

607 Sansome St., San Francisco.

ALL ABOUT GARDENING

For Home Use and for Market, in Root's Garden Manual—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAOO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, always pay. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

---

This is a beautiful Quarterly Journal, finely illustrated, and containing an elegant colored frontispiece with the first number. Price only twenty-five cents for the year. The first number for 1876 just issued. ☞Vick's Flower and Vegetable Garden, 35 cents; with cloth covers, 65 cents. Address

JAS. VICK, Rochester, N. Y.

FREE to all who wish their Seed directly from the grower, my large, elegantly illustrated Vegetable and Flower Seed Catalogue. Address, JAS. J. H. GREGORY, Marblehead, Mass.

FARMERS, GET THE BEST!

WHITE EXCELSIOR OATS. Average yield, 80 bushels to the acre. Weighs 40 pounds per bushel. Propagated and for sale only by the undersigned. One-quarter bushel, $2; one-half bushel, $3.50; per bushel $6.50; two bushels or more, $6 per bushel. Bags free Send money by P. O. order or registered letter. Sample, post-paid for three stamps. Address

WM. M. KENTON,

Lock Box 532, Jackson, Mich.

Miscellaneous Notices.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. Colby.....Nord | J. Regensburger.....S. F.
J. Vollmar .....S. F. | A. W. Thompson.Petaluma
J. D. Blanchar.....Napa | F. A. Kimball....San Diego
C. Mitchell Grant.....| I. G. Gardner.....S. F.
G. P. Kellogg.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street. S. F.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Gooods, Cigars, Candies, Candied Fruits, Honey, Maccaroni, Crackers, Sugar, Soap, Boots, Etc,

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the conntry well attended to

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superlority by at least one year's regular work. Send for our circulars.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,

San Francisco.

CALVERT'S

CARBOLIC

SHEEP WASH,

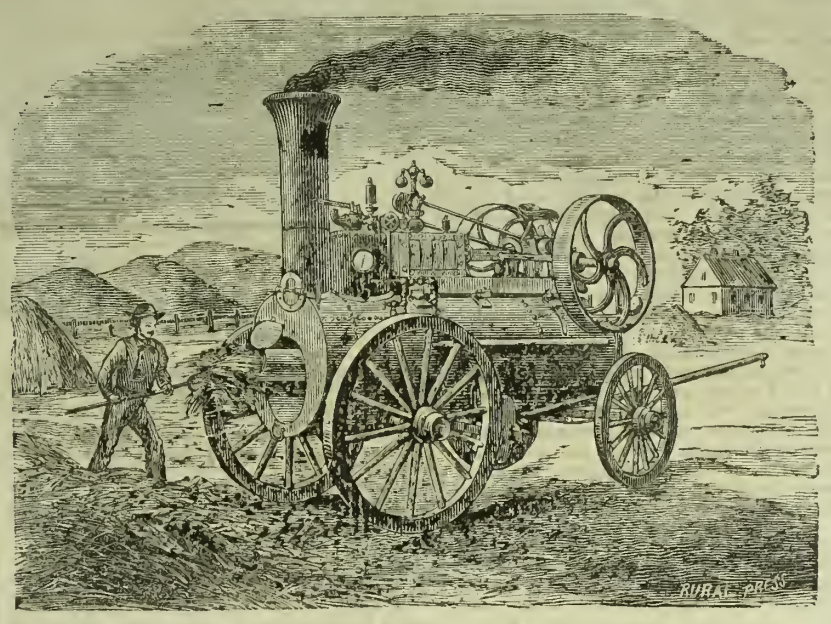
$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS? Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874, re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength and power will surpass anything ever before invented. They are unquestionably the best engine in the world. They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the larges farmers and best threshers in different parts of the State, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co.. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific coast, and all orders should be addressed to them.

San Francisco, January 10th, 1876. H. W. Rice.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials and all other information, to our office, 108 and 110 Front street, San Francisco, and corner Second and J streets, Sacramento.

MARCUS C. HAWLEY & CO.

FOR SALE.

NEW ZEALAND GRASS SEED,

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine imported Australian, French and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,
433 California Street, S. F.
(Merchants' Exchange.)

H. K. CUMMINGS. 1858. | H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

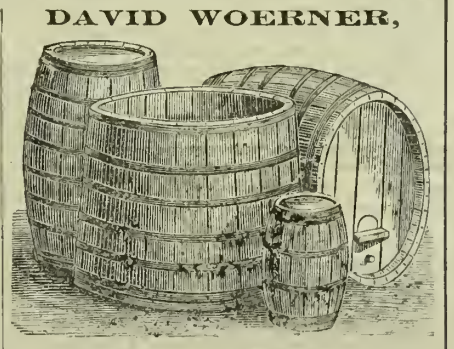
No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the producer
4v23-1y

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For Sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

DAVID WOERNER,



COOPER,

No. 104 and 112 Svear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required.

eow-bp.

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four tablespoonfuls to a washtub of water. For bathing, use one tablespoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.

Also, SULPHATE OF AMMONIA for chemical purpose, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION, for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and PURE LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

☞ Manufactured by the

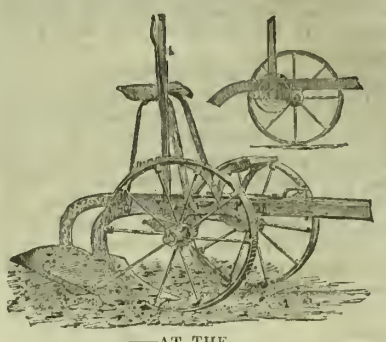
SAN FRANCISCO GAS-LIGHT CO.

cowbp

Agricultural Articles.

OAKLAND GANG PLOW

Pat. and Manufactured by



HENRY N. DALTON.

—AT THE—

PACHECO

Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or be raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,
Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

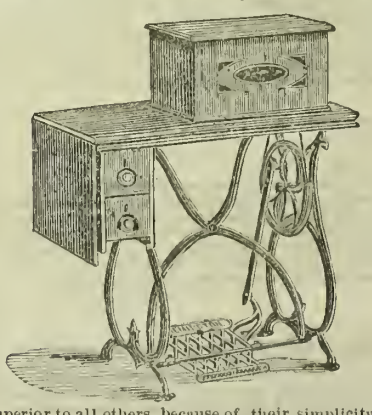
American Chief Gang Plow.

Took the Preminm over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

COOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of exuse, at current rates of storage. Advances and insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

To the Readers of the Pacific Rural Press!

We wish you to speak to all who you think would be pleased with our paper, and tell them of its merits, and of the advantage it has been to you and your acquaintances.

We need a larger subscription list, which will enable us to keep up a good paper and to improve it, and become still more useful to you and to our whole coast.

Hand your paper to others when read—if you do not file it. Send it to your friends by mail. Send to our office for back numbers, which will be sent free as samples for you to distribute.

The attention of meetings of Granges and Clubs called to articles of local or special interest, would prove of mutual benefit.

Write for the columns of the RURAL PRESS. Send us friendly counsel, business hints, and all information of interest to us and our readers.

SUBSCRIPTION, $4 per annum. Old subscribers sending us a new subscription with a renewal of their own, may remit $7 for the two.

Remit by P. O. Order or registered letter to

DEWEY & CO.,

Office, No. 224 Sansome St., S. F.

"Faith and Confidence"

LIVERMORE, Oct. 1st, 1875.

MESSRS. DEWEY & CO., Patent Solicitors: *Gentlemen*—Yours of the 29th ult. containing my patent to Elevated R. R. duly received, and I hereby return my sincere thanks to the MINING AND SCIENTIFIC PRESS Patent Agency for your promptness and honesty in regard to our business connections. I have received a flood of circulars from Eastern firms, desiring to deal with me, but I have declined any communication with them and prefer, as soon as circumstances will permit, to negotiate with and patronize a home institution; one in which I have faith and confidence—DEWEY & Co.

Again thanking you for your promptness in securing my patent, I remain, obediently yours,

WM. H. HARRISON.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
JOHN ROSTRON—California.
G. W. MCGREW—Santa Clara county.
J. M. MCARTHUR—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
J. W. RILEY—San Francisco.

THE RURAL PRESS.—Glancing over the columns of a late number, we are pleased to find how much excellent reading matter it contains. It keeps a farmer posted in the latest information of real value. It is up with the times in suggestions and advice, answers to queries, etc. It tells of new trees, seeds and plants, mentions discoveries and useful recipes. The farmer; his wife, boys, girls and help, can all read it with pleasure and profit. It fairly represents each part of the State to immigrants. It is now giving a short sketch and statistics of each county. We shall watch with interest when it gets down to Santa Barbara Co. It gives prominence to an article from our colums on the stats of the crops in this valley. Farmers, you can't afford to be without that paper.—*Lompoc Record.*

Thanks for Prompt Attention.

STOCKTON, June 26, 1875.

Messrs. Dewey & Co., S. F.:—

I have received the patent for my invention in wagon brakes, which you prosecuted for me; patented May 11, 1875—No. 163,046. Thanks to you for your prompt attention to the case; yon will hereafter be my attorneys in such cases. I recommend all inventors on the Pacific coast to give yon a call, which I think they will never have any cause to regret. Very truly yours,

GEO. G. BUCKLAND,
Stockton, Cal.

The Best Agricultural Paper in America.

PORTERVILLE, February 10, 1875.

TO THE EDITORS AND PUBLISHERS OF THE RURAL PRESS:—*Dear Sirs:* I am going to change my residence, and I will take the RURAL PRESS again, when I get settled, and will get back numbers. I can say without flattering you that it is the best agricultural newspaper in America, and I will nse my influence in your behalf.

Yours with respect, JOHN MCINTIRE, JR.

SUBSCRIBERS are reqnested to examine the printed address on their papers. If mistakes occur *at any time*, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it wonld be represented, viz: jl 4 76; or 4jl76.

THOUGHTLESSNESS.—Persons sometimes return thei paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

BETTER RETURNS, ETC.—One of the largest business firms in Sacramento writes us, October 30th, 1875, remitting the cash for advertising, and a new order with the following remark: We are more than gratified with the result of our advertising in the PRESS. It has brought us better returns than any paper we have ever patronized. Yours truly, J. G. & Co.

GIVE YOUR FULL ADDRESS when you communicate on business to this office, especially in returning newspapers. The fact that your name is on our subscription list is of no assistance to us. Without sending your post office address we should have to look over thousands of names to find yours.

ONE of our most valued exchanges is the PACIFIC RURAL PRESS, published by Dewey & Co., San Francisco, California. Every number contains a large amount of general news from the far west, besides much valuable information in the way of Grange news.—*The Farmer's Friend, Mechanicsburg, Pa.*

DEWEY & CO.

American & Foreign Patent Agents.

OFFICE, 224 SANSOME STREET, S. F.

PATENTS obtained promptly; Caveats filed expeditiously; Patent reissues taken out; Assignments made and recorded in legal form; Copies of Patents and Assignments procured; Examinations of Patents made here and at Washington; Examinations made of Assignments recorded in Washington; Examinations ordered and reported by Telegraph; Rejected cases taken up and Patents obtained; Interferences Prosecuted; Opinions rendered regarding the validity of Patents and Assignments; every legitimate branch of Patent Agency Business promptly and thoroughly conducted.

Our intimate knowledge of the various inventions of this coast, and long practice in patent business, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing.

The shrewdest and most experienced Inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the columns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

Foreign Patents.

In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents, including Great Britain, France, Belgium, Prussia, Austria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Itsly, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chili, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

No models are required in European countries, but the drawings and specifications should be prepared with thoroughness, by able persons who are familiar with the requirements and changes of foreign patent laws—agents who are reliable and permanently established.

Our schedule prices for obtaining foreign patents, in all cases, will always be as low, and in some instances lower, than those of any other responsible agency.

We *can and do* get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country SOONER than any other agents.

The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the and patentability of inventions discovered here than any other agents.

Situated so remote from the seat of goverment, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by extra time consumed in transmitting specifications from Eastern agencies back to this coast for the signature of the inventor.

Confidential.

We take great pains to preserve secrecy in all confidential matters, and applicants for patents can rest assured that their communications and business transactions will be held strictly confidential by us. Circulars free.

Home Counsel.

Our long experience in obtaining patents for Inventors on this Coast has familiarized us with the character of most of the inventions already patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicants of any knowledge we have of previous applicants which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advise of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency

Engravings.

We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

DEWEY & CO.,

United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F

TREES FOR FRUIT AND ORNAMENT.

500 Acres of Trees at Wholesale & Retail

Pear, Apples, Cherries Quinces.
Peaches, Plums and other Small Fruits.
New and Rare Ornamental Trees and Shrubs.
Evergreens, large quantity, large variety, cheap.
Cut-leaved Birch, Purple Beech, Weeping Trees.

Clematis Jackmanni—Hardy and perpetual; blooms profusely until frozen up.

Perpetual White Clematis, 15 sorts. We have over 70 varieties of Clematis, in many shades of color, from dark rich purple to pure white—strong plants, safely sent by mail.

Roses, Moss, Tea, Climbing and Perpetual.
Small Packages sent safely by mail and express.
Catalogues free. Address

T. C. MAXWELL & BROS.,
Geneva, N. Y.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camellas and Lily Bulbs constantly arriving from China and for sale very cheap Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

Just Published.

THE PUBLIC LANDS

OF CALIFORNIA

AND

U. S. LAND LAWS,

With a Map of California and Nevada.

A BOOK OF INFORMATION,

Especially valuable to Immigrants and Preemptors, and interesting to the public generally.

Contains a general statement of amount of Public Lands now open to pre-emption; Railrosd Lands, and where they are situated, how reached; and general instructions for locating snd holding.

Contains, also, facts of general interest to all in regard to the chief industries of California. Compiled by H. M. VAN ARMAN.

PUBLISHED AND SOLD BY DEWEY & CO., PUBLISHERS OF THE PACIFIC RURAL PRESS, SAN FRANCISCO, CAL.

[PRICE 50 CENTS, POST PAID.]

TRAVELING AGENTS WANTED

For this paper. Experienced canvassers can make excellent wages. None but intelligent persons of good recommendation need apply.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers,
No. 224 Sansome street, SAN FRANCISCO.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

NEW CROP OF BLUE GUM SEED.

GRASS AND CLOVER SEEDS.
FLOWER AND VEGETABLE SEEDS.
TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,

SEEDSMAN,

No. 317 Washington Street,
SAN FRANCISCO.

v8-tf

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

THE Twentieth Edition of our celebrated Seed Catalogue and Amateur's Guide to the Flower and Kitchen Garden, containing upwards of 200 pages, including several hundred finely executed engravings of favorite flowers and vegetables, and a beautiful colored chromo, with a Supplement for 1876, will be mailed to all applicants upon receipt of 35 cents. An edition elegantly bound in cloth, $1.

BLISS' ILLUSTRATED GARDENERS' ALMANAC

For 1876, and Abridged Catalogue of Garden and Flower Seeds, contains upwards of 100 pages, and embraces a monthly Calendar of Operations and a price list of all the leading Garden, Field and Flower Seeds, with directions for their culture. A copy will be mailed to all applicants inclosing ten cents. Address

B. K. BLISS & SONS, 34 Barclay St.,
P. O. Box 5712, New York

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,
(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY.
EMDEN GEESE,
Pekin Ducks.
PIGEONS. RABBITS. FERRETS.

BRONZE TURKEYS.
PRICE-LIST For 1876 Now Ready.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.
Please enclose stamp.

FARMERS write for your paper.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, FEBRUARY 19, 1876. [Number 8

Implements and Hardware.

We note with pleasure all indications of growth among the industries which are the handmaidens of agriculture, because their prosperity is one of the signs of spirit and growth in their mistress. When there is life, bustle and business in the implement manufactories and salesrooms, there must be activity and profit in the fields. When there is enlargement and progress in the establishments which minister to the demand for the million useful things known as hardware, there must be a prosperity and an ability to secure wider comfort and convenience among the people. As reflecting their own advancement we take pleasure in describing for our agricultural readers the condition of the city furnishing establishments which render them useful service. This is the theme both for text and illustration on this page this week.

During the week we have visited the fine premises, No. 349 Market street, S. F. We have prepared an engraving of its imposing exterior and wish to indicate briefly what can be found by passing the doorway. The building has lately been secured by two enterprising business firms, Frank Bros. &Co. and James E. Gordon. Their lines of business are cognate; all are young men of spirit and enterprise and enjoy good business reputations.

Frank Bros. & Co.

The Frank Brothers started in the sale of agricultural implements one year ago at 206 Davis street. It was a narrow concern and their business soon outgrew its quarters. The firm thus soon has found itself forced to seek room, and it is found in the new establishment. As one enters the door he is first struck with the fine display of everything useful in agricultural machinery and implements. Descending to the cellar it is found densely packed with machines in parts ready to be adjusted and set up for work. On the proper spaces on the upper floor the implements in full rig can be examined. There seems to be every convenience for the full examination of the varied stock.

Frank Bros. & Co. have indeed a splendid stock. We noticed the new patterns of the "Walter A. Wood harvester and self binder." It is claimed to be the greatest labor-saving machine in the world. The representation is that with this machine one man and three horses can bind from 12 to 15 acres of grain per day. It may be used either as a harvester and self binder or as a harvester alone. They have also the "Walter A. Wood improved iron mower" and "self rake reaper." In threshing machines they advocate the "Sweepstakes" with all the latest improvements for the Pacific coast. They have also the "Haines header." The "La Belle wagon," of which we gave an illustration recently, appears in all its fine strength and proportions. The "Blackhawk plows," gang, sulky and single, are shown in full stock. The selection of the lesser farm tools and apparatus is full and complete, altogether too full for enumeration. It can be readily seen that with such a line of tools and with the full supply of duplicates of all parts of each which they constantly keep in stock, they are in need both of much show room and store room. The enlarged establishment is indeed a necessity. The firm has just established a branch house at Portland, Oregon, with W. S. Newbury as manager, where our Northern readers can enjoy the selection which we have described at the original establishment.

James E. Gordon.

Mr. Jas. E. Gordon has been a resident of the State since 1849. He went into the employ of L. B. Benchley & Co. in 1862, remaining with them and their successors, Linforth, Kellogg & Co., until November, 1875, most of the time as head salesman and stockman. In November, 1875, Mr. Gordon bought the stock and business of the late firm of Pillsbnry, Hussey, Adair & Co., formerly Marsh, Pillsbury & Co. There being no suitable store available last November, Mr. Gordon stored his goods, amounting to some $50,000, in warehouses until he was able to secure the premises, No. 349 Market street, which we illustrate this week.

Mr. Gordon's extensive stock of hardware fills long continuons shelves and cases, and is packed away in almost limitless quantity, in packages, awaiting the shelf room.

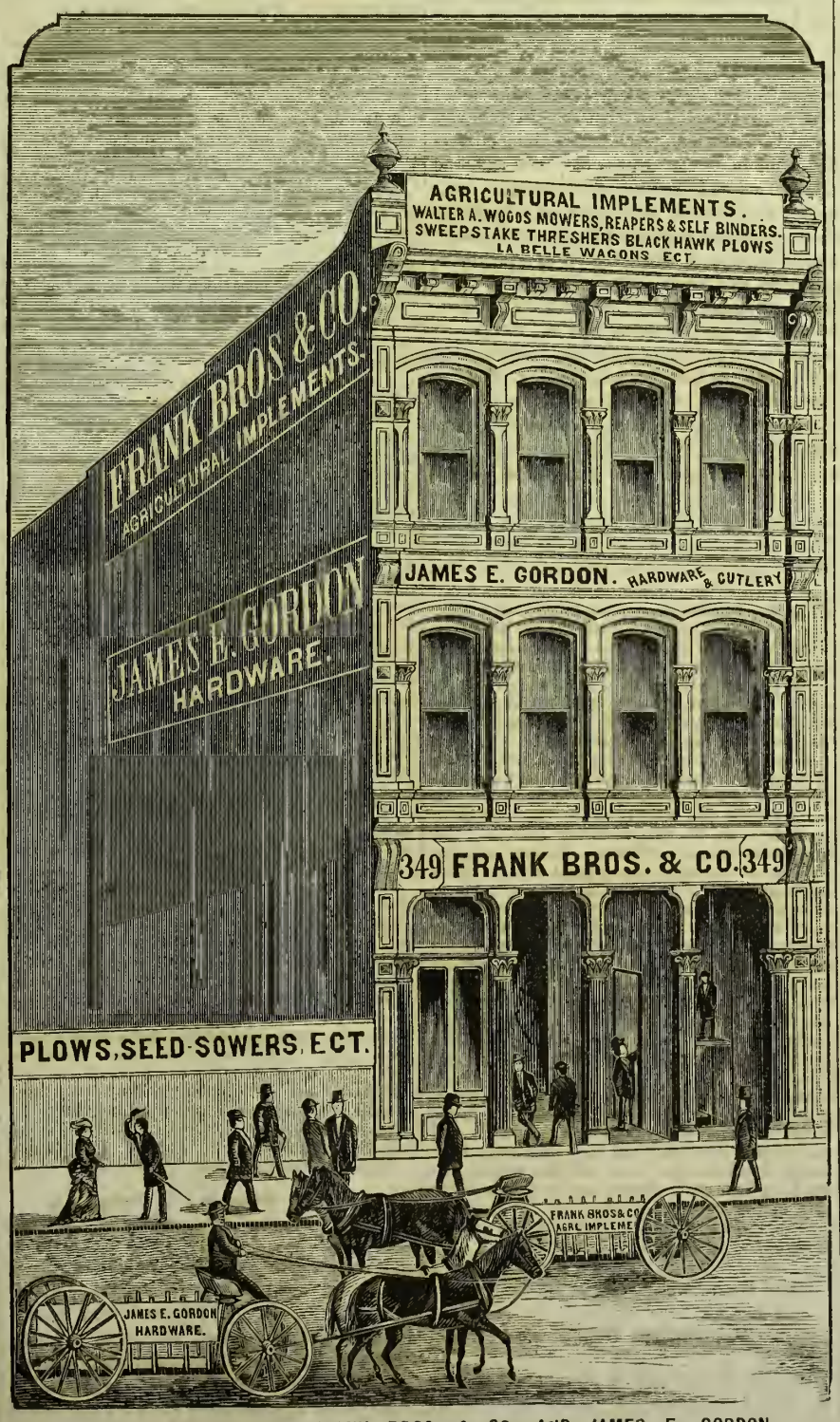
One of the first things we noticed, in looking over Mr. Gordon's stock, is a full display of files of the famous Beaver brand, for which Mr. Gordon is the agent on this coast. These files have almost entirely superseded the foreign article, because of their extra quality, there being none better in the world. Another important article in manufacturing is sand paper. Mr. Gordon has secured the agency of the New England flint paper, which for fine manufacture and excellent stock, both in paper and sand, has set aside the poor material which has been plentifully brought to this coast heretofore. The display of tacks, brads and finishing nails of the well known manufacture of Dunbar, Hobart & Whidden, is very full. This firm was the first to manufacture tacks in the United States.

Ascending to the second floor, we find a fine assortment of handles for axes, picks, sledges and other tools. Every farmer appreciates the importance of a first-class axe handle, and this Mr. Gordon thinks he has secured in the Leland & Durkee brand, for which he has obtained the agency, and is just placing a stock on this market.

After the farmer has stocked his farm with the needed machinery, the next thing is to make his home pleasant. To enable him to do this Mr. Gordon has a full and complete assortment of house furnishing hardware, as well as builders' hardware to aid in constructing the house itself.

Mr. Gordon's business is wholesale, and having a large and growing country trade, our readers can find his goods at the nearest country stores. Where such is not the case, farmers can deal with Mr. Gordon directly by letter or at his store. For the benefit of our readers in Mexico, Central and South America, we would state that Mr. Gordon speaks and writes the Spanish language fluently, and is making a special point of extending his trade in their directions; he also has trade in British Columbia and the Sandwich Islands, and has just established an agency in Melbourne, Australia, where a full line of samples may be seen.

As we remarked at the outset, we note with pleasure these indications of success and prosperity in these useful lines of trade. We doubt not the establishments we have described will go on prospering, and that their future will be highly creditable to all interested.



BUILDING OCCUPIED BY FRANK BROS. & CO. AND JAMES E. GORDON,

Hints for Winter Work.

G. R., of Sacramento county, sends us the following useful hints for winter's work:

The season of winter with its work varies as sunshine and rain alternate; the gathering of material for enriching the soil is practiced, and material mixed for future use. The falling leaves of brown October have been gathered with the cleaning of the yards. The subject of night soil has had but little attention, but its use with other matter I find has given me a large compost heap ready for spring use, for the kitchen garden and other uses. I find in a year the gatherings of sand, leaves, wood, ashes, lime, soap suds and house cleanings, gives me a rich bank of large dimensions.

Another source in winter's work is the cleaning out of old ditches. The accumulation of old leaves, grass, wood and mold are first skimmed out, making a good many loads, and then repairs can be made.

The wood pile is a source from which can be drawn; the wood for winter has been under cover, leaving the contents of chips, bark and rotten material to be raked together.

Old rubbish piles which are eye-sores can be culled. What is fit for kitchen fire is so disposed of, the remainder is burnt up or placed out of sight, hauling away the refuse for decomposition.

As our plains do not furnish muck which is so abundantly found East, we have to look to other sources for its substitute. We should not forget our hennery and pig sty. This accumulation is a source of wealth itself. By observing all these things we find our farm, when spring opens, has had quite a cleaning, and looks prim and ready again to gather a large share of fertilizing material for another year.

BLUE GUMS FOR TRIAL.—W. A. T. Stratton writes from Petaluma: "Business is very brisk in gum trees, and I am shipping about 5,000 daily. There will be planted in this county this season about 150,000 blue gums alone, and next season the amount will be double. Tulare, Fresno and San Diego are planting heavily. You are at liberty to announce in the RURAL, that in the sections of the country where the blue gums have not been introduced, to any party who desires to test them I will send free by mail on receipt of stamps for postage, a sufficient number for such purpose. The only condition I impose is, that the result, whether success or failure, may be communicated to the columns of the RURAL PRESS."

A BILL TO DESTROY INSECTS INJURIOUS TO AGRICULTURE.—In the Senate at Washington, February 14th, Mr. Ingalls said the Senate had already received information as to the ravage of insects upon vegetation in the West. During the past year actual loss from the ravages of locust, chinch bug, army and cotton worm, and Hessian fly, exceeded $200,000,000, and from locust alone the amount exceeded $50,000,000. In seven counties of Minnesota nearly 60,000 bushels of locusts were destroyed at a cost of $80,000. He believed the subject was worthy the attention of Congress, and therefore introduced a bill for the protection of agriculture against injurious insects. The matter was referred to a standing committee.

DURING January, the demand for postage stamps, postal cards and stamped envelopes reached the unprecedented amount of $3,500,000 worth.

CORRESPONDENCE.

More About Straw Burning Engines.

EDITORS PRESS:—I was considerably interested and amnsed by reading an article in your last issue, having the above title, and signed J. W. Riley. This gentleman appears to thoroughly understand his subject, in so far at least as his own observations have gone; beyond that, and what may be doing in other parts of the State in regard to this species of industry, we are left in blank.

Bnt if yon will allow me, Sirs, I will add a few supplementary remarks to Mr. Rlley's article, which may not be altogether ont of place, or displeasing to the parties mentioned. We shall all agree in sayiug that all honor is due Mr. Rice for the energetic measures that, in conjnnction with others, he has taken to bring to a snccessfnl issue his idea of an engine that shall burn straw alone for fuel, and yet lose not one whit of its power or usefulness.

Bnt we are naturally led to inquire, is Mr. Rice alone in the field, or are there others that deserve honorable mention at onr hands? I think there are, and first and foremost among the claimants stands prominently forward the name of

Mr. Enwright, of San Jose.

It is nearly ten years ago, (if my memory of dates is correct,) since the idea occnrred to Mr. Enwright that it would be jnst as feasible to nse steam power with threshing machines as to nse steam power in a sawmill, or elsewhere, and thus keep step with other parts of the world, where they were already in active operation; whereupon, without adequate means, withont proper tools, with the whole voice of the community against him, does he at onoe set to work to build his engine. That it would never do, that it wonld set everything on fire, that farmers would never allow it inside their fences, that it wonld be the foolish fellow's ruin, of course every one sgreed to, but in spite of all this, Mr. Enwright built his engine, and after a good deal of persuasion, a farmer allowed him to try it with his grain, the builder being responsible for the damage it might do.

The Result,

Of course is well known; horse-powers were at a disconnt at once, and those that had laughed the loudest, now were the wisest, who had always known it would prove a good thing. Since that time Mr. Enwright has built a large number of engines, which compare favorably with others, either imported or those of home manufacture. Of course they all burned wood. Within the last two years this enterprising gentleman has turned his attention to straw bnrning engines, and last year a number of them were doing very good work in the harvest field. As he drove out the horse-powers with his wood burning engines, so now he threatens to drive out them in their turn by his straw bnrners, and he is in a fair way to do it. For simplicity, dnrability and strength, I can safely say, from personal observation, that they are equal to anything of their kind that has ever gotten np steam in this State. The boiler has retnrn flues, the straw being fed to the furnace by hand, withont the intervention of any machinery whatever.

Brown Brothers of Salinas.

Then there is a firm of bnilders that has recently started at Salinas, in the manufacture of engines that are to burn straw. I refer to the Brown Bros. These gentlemen, within the last few years, left their home in Anstralia, and have settled down in this State, as offering the best advantages and the surest returns for capital invested of any conntry they have ever seen. They have bought extensive grounds at Salinas, and erected a large two-story bnilding, where they mold their own castings and do their own work generally. Already they have bnilt some eight or 10 straw burning engines, whioh have given eminent satisfaction; and so confident are they that nltimately they will be nsed to the exclusion of all others, that this year will witness another batch of them turned out of their erecting shop, they heing eagerly bought up hy the farmers and others in their vicinity. A firm of

Santa Cruz Builders

Tried their maiden hand last year on this class of industry, and thongh uot so snccessful as others, they will do better in the future and learn wisdom from past failnres.

At Watsonville

We have Mr. McLean throwiug open his large shop for our inspection, and although this gentleman has not built any of these engines as yet—contenting himself with remodeling some and repairing others, yet it is the nuclens for mnch larger things in Pajaro valley in the immediate future; many others, too, in different parts of the State, are spending time and money in the same direction. Let a want once be felt and we may safely let our American genius alone for quickly supplying that want.

Mr. Riley informs us that an English firm has sent one of their straw burning engines to this coast. Of course we are very much obliged, bnt California presents her best compliments to England, with many thanks, bnt thinks she can supply, throngh the means indicated, her own children in this direction for many years to come.

That in the construction of these engines there aro difficnlties to be encountered, of course no one qnestions, but that these difficulties will be eventnally overcome no one doubts, and it is the trnest wisdom to frankly acknowledge them, and set abont their remedy, rather than gloss them over, and assert that everything runs smooth—that there is nothing left to be furtber desired. Of course there is an enormons pile of straw burned dnring a day's run, and that in its turn must make an enormous quantity of clinkers and cinders, and how most readily to got rid of these is one of the difficnlt problems that our engineers are reqnired to solve. The burnt straw is naturally light and feathery, and the strong draft snck̆s up these particles against the flue sheet, but being too long for most of it to pass through the fines, it commences to form a compact mass over their mouths, and very shortly the whole flue sheet will be completely covered with a mass of stuff two or three inches thick, thereby stopping all draft nntil it is removed, sometimes oausing considerable inconvenience. That this and other obstacles can be removed I am qnite confident of, and that too in a very simple manner, but the modus operandi I must leave until next time. C. Z. SANDERS.

San Francisco, Feb. 10th, 1876.

A Free Opinion on Parks' Dam.

EDITORS PRESS:—I have an item before me that I have been thinking abont for somo time, in regard to the cntting of Parks' dam, as being one of the most disgracefnl operations ever performed. Perhaps you are not aoquaiuted with both sides of the matter. In the first place, there is a number of hard working farmers that came in here a nnmber of years ago and bought land and lived here, and made it their home, and worked and toiled and stood the floods year after year, until there were enongh here to organize a district, and to levce themselves in, and protect themselves from high water. And just as they began to get comfortfortably situated, here comes Mr. Parks and goes to work and dams up Butte slough. The first time it backed the water up it drowned people ont above, until they would not stand it, and the dam was cut, and the consequence was that it broke our levees and put us under water from two to six feet deep. Then he let it rest at that for one year, so we conld repair np our levees and build them stronger. Then it was put in again and it was not strong enough to stand water, and it broke itself, and the water came down with such a rush against our levee that it was almost impossible to keep the water from breaking throngh. Still again he put it in and this time it was put in stronger than ever, and the water was higher than it had been for 20 years, oansing the water in the Sacramento river to overflow its banks, and to cover Mr. Parks' reclaimed laud with water, while his dam still stood full of water. The dam was qnivering to its very foundation from the pressure of water against it, and we understood one morning that our levee had been cut, and a runner was sent throngh the neighborhood to waru the people to take care of their families and stock. This was done in as great a haste as possible, yet a great deal of stock perished then. The water still raised inch hy inch till the water came on to my porch, and was still rising. I thought it time to take my family out. The water still rose till it came into the honse. Some one seeing the damage which it was doing, had courage enough to cut tbe dam. The cntting relieved us as soon as it was done, and I cannot see where there was any barbarous act about it. The people were here before Parks, and I cannot see why they should be rode down by a man because he sees a ohance to make some money. If Parks would go to work the right way to reclaim his land, it can be done without interfering with any one's right. We would not have any opposition and it could he done with half the money that the dams have cost. There are white men in this part of the country besides Mr. Parks, aud men that will not see their hard earnings washed away to make money for a land-grabber.

A SUBSCRIBER.

Meridian, Sutter Co., Cal., Feb. 4th.

"Concerning Hogs," Etc.

EDITORS PRESS:—Mr. or Mrs. or Miss L., in the last RURAL, has hit us a tremendous dig about the pig. My wife fairly turned pale, and jnst the very minute I got through reading it, I was ready to swear off from spare-ribs, doughnuts and sausages, and drive all my swine down a steep place into the sea. Then it popped into my head to ask L. this question: When you were enjoying the delicate strawberry and peach, were you ever "horrified at the idea" that you were eating the manure—awful pig mannre—with which their roots were fed? True, 'pon my sonl; and yet, I do not mean to he a CRUEL QUIZ.

Summer Fallowing.

EDITORS PRESS:—The commnnication by "Rancher" in your issne of February 5th indnces me to say a few words on the the snbject mooted by him, viz: snmmer fallowing. Your correspondent evidently uses the word in its proper sense, namely, *tillage without cropping*. Unfortnnately, this is usually far from being the meaning, and still less the practice, when the idea of "resting land" is introduced, as the first remedy for failnre of crops in consequence of long continued cropping without returu or even rotation, in the Western and Gnlf States especially, bnt too much of the "resting" is done by allowing the land to lie untonched by the plow for a season; the frequent resnlt is that the land is afterwards not only no better for its rest, but actually worse, in consequeuce of the washing away of the surface soil by the winter rains. The habit of "dry sowing" has donbtless contributed toward inducing the more general prevalence of the correct practice in California, since in the valleys at least it is generally necessary to plow as soon as the crop can be takon off the grouud, if plowing is to be done at all. The soil thus obtains incidentally, as it were, the benefit of summer fallow, in a condition of tilth which renders the fallowing action most effectual and without extra expeuso.

Your correspondent is donbtless correct, also, in attributing much of the beneficial effects of dry sowing to the physical condition of the soil, rather than to the development of additional nutritive ingredients by the short fallow between harvest and sowing time. So important is this consideration in many points of view, that I cannot but express my surprise at not finding tbe practice more universal, after witnessing the numerons disadvantages and risks to which its omission subjects the California grain grower. How much of the seed has this winter been put into cold, clammy grouud, plowed hastily when really too wet for proper tillage, the seed sprouting slowly and interruptedly, and strnggling throngh the pasty soil with difficnlty; and how different are the chances of these late sown fields from those in which the first rains on the warm soil bronght out the sprouts, giving the roots time to spread and descend into the soil before it was chilled. I cannot see that the risks attending the spring sowing of grain in tbe Eastern States are not fully as great in California. We can sow earlier, but the early cessation of rains renders our growing season equally as short. The entire difference between the success and failnre of grain crops in California, in different years and localities, often depends upon a difference of two or three weeks in the length of the growiug season. But the headway gained by summer fallowing followed by dry sowing frequently amonnts to much more than the difference of time. And right here I must differ from your correspondent as regards the propriety of sowing early in cold ground rather than late and in warm ground, as he advises. Experience olsewhere has abundantly demonstrated that after the grain is once up, nothing short of actual freezing of the gronnd will prevent the rootlets from developing, slowly but surely, even while the plantlet seems to be doing nothing. There is always a gain iu time, provided only the heart is not frost-killed. A late sown and hastily grown crop always lacks, more or less, that vigor aud power of resistance which is imparted by deep and widespread roots, and readily falls a victim to an early drouth.

Experience both here and elsewhere seems, then, to point to the propriety of plowing as soon as the crop can be taken off the gronnd, and dry sowing the grain shortly before the rains set in. The fact that our grain may safely remain stacked for months after harvest, while the Eastern farmer must make all haste to take it home for fear of damage or total loss, gives us a great advantage, and a good reason for a practice different from his. It may be gravely doubted whether the habit of rushing our grain crop into market at the first chance, to the neglect of the preparation needful to insure a crop the coming year, is not too expensive to he indulged in. EUG. W. HILGARD.

University of Cal., Feb. 7th, 1876.

Practical Progress in Irrigation.

EDITORS PRESS:—The work of irrigation is in full blast with us. Several thousand acres have been flooded before breaking. While some have broken their land and then applied the water before seeding, others will irrigate after the grain is up. By the different methods we may be able to arrive at correct conclnsions. The general appearanco of the work shows that our farmers are confident of success and that all doubts have fled. The ditches and crocks have been constructed with a view to service instead of experimenting. I am unable to say how many thonsand acres have been prepared for irrigation since last spring, but the work has been constantly going ahead. There will be quite a number of acres of alfalfa sown this season. In short, our chances for success in irrigation are vastly improved over that of last season. For this we are indebted to the excellent judgment and ability of Mr. E. W. Chapman, who has charge of the company's works at this place, and has proven himself equal to the task.

Since yesterday noon we have had a nice rainfall of three-quarters of an inch. The rainfall for the season to date is between nine and 10 inches. A gentleman from the mountains informed me to-day that the snow is three feet deeper now than has been known for 20 years past in the same locality. E. S. R.

Borden, Fresno Co., Feb. 9th, 1876.

Prospects in Solano.

EDITORS PRESS:—Our grain crops are looking finely. There never was so good a prospect before in this part of the country. Although we have had abundance of rain, for the last week we have had sunshine, and the farmers are busy doing their winter plowing.

G. A. BROWN.

Binghampton, Solano Co., Feb. 6th.

THE VINEYARD.

Some New Grapes.

George Husman writes for the *Rural World* some points concerning several new varieties of grapes, which will interest our vine growers:

Elvira.

I may be considered too sanguine when I predict that in this we have a treasure, the value of which it is difficult to estimate as yet. It has passed through its sixth bearing season with flying colors, proving entirely healthy, and whoever has seen its vigorous green foliage, and its pearly, transparent clusters, is not apt to forget it, but will plant it. Let us sum up its advantages—they are: 1. Vigorous, healthy and steady growth. 2. Handsome, healthy and vigorous foliage. 3. Easy propagation. 4. Extreme hardiness, having never suffered from the severest winters, and withstanding the most unfavorable weather in summer. 5. Great productiveness, one branch often producing six bunches. 6. Handsome, medium and perfect bunches, so compact often as to press the berries out of shape. 7. Handsome, full medium sized, transparent berries, of good quality, fine for table and market, and making a wine so closely resembling Reisling that good judges have pronounced it to be Riesling. I do not think I am saying too much, in view of all these good qualities. I consider it the coming grape for white wine, on which much of our future prosperity rests.

Uhland.

This is another Taylor seedling, grown by Mr. Weydemeyer, of Hermann, which also promises to be a great addition to our white wine grapes. It has also a handsome, perfect bunch, a medium sized, transparent berry, and has produced good crops during the three seasons it has borne fruit. It grades higher in saccharine than Elvira, and makes a fiery, highly flavored wine. It resembles the Taylor in its foliage more than the Elvira, and may not withstand the mildew equally well; but still it bore a very handsome crop last summer, which certainly speaks well for its resisting qualities.

Triumph.

Wherever I have seen grafts of the Triumph this summer, they have ripened their wood to the tips and made a fine growth. I still believe it is hardy and healthy as most of our older varieties—the Concord, for instance; and any one who has seen such magnificent fruit of it as you grew the year before, when nearly every other variety failed with you, except the Ives, cannot help but covet it. I will here give a description of it, as well as I can remember having seen it with you. Bunch very large and heavy, often weighing over a pound—shouldered; berry very large, round, golden-yellow, transparent; skin thin; juicy; tender in pulp; deliciously sweet, without a trace of foxiness. If it can be grown at all, of which I have not the slightest doubt, it will become the best market grape we yet have. Messrs. Poeschel & Scherer have also made a very nice wine of it from grapes you sent them last year. They think that Triumph, Elvira and Uhland mixed together, will make the coming white wine of the country, which can successfully compete with the finest productions of the Rhine, and grafted quite a number of vines with all three last spring, which have made a splendid growth.

Francis Langendoerfer, who has already given us the Hermann, has two seedlings. One from Norton, resembling its parent in growth, bunch and berry, but a pale yellow grape, making a wine resembling old heavy Rhenish wine. The other is a seedling of Hermann, also resembling its parent in everything except color, which is also pale yellow; thin-skinned and juicy. I tasted a sample of the wine, pale yellow, and of the most exquisite flavor I have ever found in any wine, native or foreign, remiuding me of its parent, but much more refined and delicate. Should this prove healthy, productive and hardy, it will be a great acquisition. Both are very difficult to propagate. We are certainly making progress, and as these grapes originated here among us, we can watch them ourselves, and need not fear being humbugged.

The Dairy.

How to Make Cheese at Home.

We doubt not that we can please many readers who are not professional dairymen, and yet have the material for making up a small farm house cheese, if we explain how it can be done with the appliances which are in every kitchen. Prof. Arnold lately prepared a complete deptiscrion of a simple practice for the New York *Tribune*, from which we rearrange as follows:

Preparing the Milk.

If more than one milking is to be used, as is generally the case in msking family cheese, heat the last milking—the new warm milk and not the old oold milk, as is often done—hot enough to raise the cold milk to a temperatnre of about 85 degrees. The mode of heating must be left to the operator, with the caution not to let it burn on the hottom of the vessel in which it was heated. No matter how hot the new warm milk is heated; it will not injure it for cheeae making to heat it boiling hot; it will indeed be all the better for a good scalding. This might not be the case in heating old milk, and hence the propriety of heating the new. Skim the old milk and put the cream into a mnslin strainer and turn on new milk, at about 100 degrees, till the cream is all waahed through. Do thia after tbe cold milk has become warm, so that the cream, after being warmed up, shall not get cool again. The skimming should of course be done before the milk is warmed. A wooden tub, something like a good new waahtnb of suitable aize, ia a good vessel to make the onrd in, as heat will not radiate from its aides and cool the milk like a metallic vessel. Supposing the milk to be in auch a tub and warmed to 85 degreea, and the cream all washed through the strainer into the milk and thoroughly mixed, it will now be ready for the application of rennet.

Treatment of the Curd.

A rennet will curdle the milk for 300 to 400 pounds of cheese. Begin three or four days beforehand, and soak the rennet in two quarts of weak brine, atirring and rubbing it often to get the strength soaked out before beginning to use it. In warm weather the brine should be strong, to keep the rennet from spoiling. Stir the contents of the rennet dish every time before using, and use one part rennet to 1,000 parts milk and mix well. Then cover the tub closely with a clotb so that the top of the milk and curd shall not get cooler than the rest, and let it stand till the curd becomes so hard that in passing your finger through it the curd will split open before yonr finger. Then remove the cover and cut the curd into half-inch cubes, with aa little friction as possible, and cover the tub sgain to prevent cooling. When the curd has settled so you can dip off a bulk of whey equal to ten per cent. of the milk in the tub, do so, and heat the whey to 120 and turn it back into the tub, stirring the curd so that it will all warm alike. When you think the lumpa of curd have become warmed through heat another batch of whey a little hotter and turn into the ourd and stir as before, and so on till the whole mass is raised to 98 or 100 degrees. While the heating is going on the curd must be kept from aticking together, and the finer it ia kept the more readily and evenly will it heat and the better will be the cheese. In breaking up the cnrd fo keep it fine and in stirring to keep it from aticking together, the manipulations should be very carefully done, so as not to waste the richness of the milk. The fatty part of the milk is, for the most part, mechanically held in the curd, and if violence is done to the curd, especially while soft and tender, the cream works out and runs off in the whey, and you get a skim cheese aa effectually as if you have skim milk to begin with. As the curd grows harder less and lesa stirring will be required to keep the lumps from adhering, till at length it may lie without stirring for some time. When it is not being stirred keep the tub covered to prevent cooling.

Taking Up the Curd.

While the cnrd is lying in the whey, at about 98 deg. to ripen, try it occasionally by taking a little curd and pressing it in your fingera into an elongated lump, and apply one end to an iron surface which is hot enongh to make water aimmer. When the cnrd will adhere to tbe hot iron so as to draw ont in stringa or threads aa you pull the curd from the iron, it is ripe enough to be taken from the whey and salted and pnt into the press. It will not be ripe enough to press till the curd will stick to the hot iron, but it may be removed from the whey as soon as it will begin to adbere to the iron. As soon as tbe curd is ripe enough, dip off the whey and place the curd on a muslin atrainer over a sieve or basket to drain and cool.

Salting, Pressing and Curing.

When thoroughly drained, salt at tbe rate of two and three-quarter pounda of salt for 100 pounds of cnrd, as near aa you can estimate, and mix evenly. Cool the curd to 75 or 80 deg. and put to press. Before putting the curd into the hoop put a press cloth into the hoop which shall be large enough to reach above the top of the hoop, then fill in the curd, turn the edgea of the preas cloth over the curd and lay on a "follower," and it ia ready to go under the presa. In calculating the size of a hoop necessary to hold the curd you expect to make, it may be some belp to know that a pound of pressed cheese measnres about 25 cubic inches. The unpressed curd will of course take up some more space. Begin pressing moderately at first and increase the pressure gradually until it reaches abont 50 pounds for each square inch in the face of tbe follower. A screw makes a very convenient press for pressing amall cheeses; but if yon do not happen to hsve a convenient press at hsnd, and would prefer not to procure one to start with, a lever may be used for a temporary press. Not having a press at hand, I have this winter nsed a strong scsntling, 16 feet long. Fastening a stud on the side of a bnilding perpendicularly, so that the lower end should reach to the desired distance above the floor, I placed one end of tbe scantling under the end of the stud, and used the cheese for a fulcrum, prying down with the scantling as if to raise the building. The weight of the scantling was enough to begin with, and sfterward weights were added till the necessary power wss obtained. Such a device may answer till you measure your skill at cheese-making, and then, if desired, more convenient arrangements may be made. After pressing till the curd is well stuck together, say three to six hours, turn the cheese npside down in the press, taking off the press cloth and putting on another, and presa firmly for about 12 houra longer; then greaae the snrface to keep it from drying too fast and sticking, and, if necesaary, put a bandage round the outside of it to keep it from spreading, and place it where it will have a steady temperature ranging from 70 to 75 deg., as near as may be, and turn and rub every day for awhile, and then every other day, and in from four to aix weeka you will have a cheeae ripe enough to cut.

Horticulture.

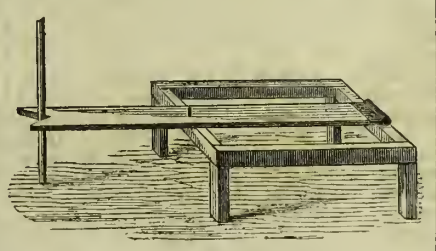
Cherry Culture.—No. 2.

In the Nursery.

Editors Press:—I go to the nursery early in the fall, the first of November, and select the beat trees I can find. If I can irrigate, I take two-year-olds; if I cannot water bnt little, if any at all, I take one year old treea, strong healthy growera, and pay the price for them. I charge the men that are digging the trees not to rub off any buds near the ground, aa I want all theae for shade to protect the trunk of the tree from the hot burning snn. Thia is one of tbe four great principles in promoting longevity in the tree and succeas in the buainess.

Planting.

My ground ia well prepared, graded and leveled for irrigation if it ia needed, and staked off the proper distance apart (say 20 to 25 feet each way). In order to save time in aighting to get the treea in a row both ways, I use what we call a "tree setter." It is made as shown in the cut.



Tree Setter.

It is 12 inches by two feet, the legs are 10 inches long. One by two inch lumber will do, well nailed so it will be firm and steady.

Now take your tree setter and place the fork of the aweep to the stake, press the lega gently and evenly in the ground, being careful to have the stake perpendicnlar, because if it leans one way or the other the tree will he that much ont of the row. Turn back the sweep. Now dig the hole two and one-half feet in diameter, and two feet deep. Throw in aix inchea of fine top soil, leaving the bottom somewhat crowning. I have all my trees taken np with long roots, so yon see that it reqnirea a good sized hole, that the roots may remain in their natural position and not be cramped.

In uaing the tree aetter we dig one hole at a time and plant the tree before we dig another. But before planting we come to another very important item, and that is,

Root Pruning.

No tree should be planted until every root that ia torn by the spade should be carefully dressed. I take up the tree in my left hand, olose to the roots, the top pointing to my back. With a sharp knife in my right hand I prune every root on the tree that has been torn or mashed up with the spade, cutting tbe bevel on tbe under side. Thia gives the roots a chance to pursue their downward course. When the little rootlets begin to start out they look something like the toes on an elephant'a foot, and the cut will heal over in a very short time.

The tree ia

Ready to be Placed in the Hole,

Where it is to remain as long as you live, who knows. Now turn back the sweep, place the tree where the atake was before the hole was dug, being careful to keep the tree plumb, as before directed in regard to tbe stake. Let your helper hold the tree in its place. Get down with your right knee on the rim of the hole, your left foot in the bottom of the hole, so you can work easily and comfortably. Carefully straighten out all the small fibrous roots, all the while tamping the soil around and under them, filling all the open spaces nnder the seat of the tree. Do not let the roots cross esch other or lay on each other, but gradually fill over them with fine loose top soil, separating the roots with earth. After the roots are well covered, spread out your fingers like a scared child, and tamp the soil in and around the roots. This done, fill the hole half full of surface soil. Tramp it lightly. Finish with the soil that was taken from the hole, tramp lightly, leaving it a little basin shaped, that when it rains the water will run in aronnd the tree and settle the soil on the roots. Planting is done. There is no more work to be done until it is time

To Head the Trees

Down to form the top. This is done some time in March, or whenever the buds are beginning to show signs of life. Head them down as low aa two feet and by no means higher than two feet and a half. These last remarks will come under the head of pruning, which will be my next letter.

* * * * *

Cherry Vale, San Jose, Jan. 22d, '76.

Growing Cranberries.

As there is a growing interest in cranberry cultnre in many parts of this State, we quote a relation of the conditions which A. J. Hinds, a Long island grower, considers essential to success. He writes to the Germantown *Telegraph* as followa:

Choice of Location.

1. Secure low-priced land, provided it can be had near large villages, where labor and pickers are at hand. 2. See that it has a muck bottom at least one foot deep on an average. 3. See that it ia free from springs. 4. See that you have a living atream of snfficient capacity to flood inside of 12 hours.

The Method of Culture.

This is the only sure method, and the only one I would take any interest in whatever: 1. Cut the brush close and burn; we have no stumps of any account, and I would here say that I would have nothing to do with grasa meadows. 2. Cut the turf say two or three feet; remove with a broadaxe kept sharp, the roots being all on top of mnck. 3. Tnrn over with a atrong three-pronged hook, made by a blacksmith. 4. Aa soon as the turf is dry enough to handle, tbrow it back from the brook far enough to cut a atraight canal and turn tbe atream into this. Be sure to begin far enough down stream to have plenty of fall for drainage. 5. Wheel all the turf and pile it on the lower line from four to five rods only. Now cut a ditch and throw against the tnrf, and one dam is made. A large dry-gooda box is all the flume I need, for I only want to raise the water one board on esch lead, as one inch of water over the vinea ia as effectual to keep off frost and to kill the worms as five feet. Do all the next of the patch in the same manner.

In this way 10 acres can be flooded in one day, whereaa with large dams it would take a week at least, and this is too long for the blossoma to he nnder water and will delay ripening in the fall two or three weeks; beaides you get rid of all dams breaking, in fact the dama cost nothing, aa it is the easiest way to get rid of the turf, and in no caae should the ditches be less than four rods apart. Three to four inches of pure aand on the top of mnck is sufficient, and in thia locality we find it under the muck. Now you are ready for setting: look out for the best variety.

From a amall beginning I have got up a stock of several acres that produce under the proper conditions one barrel to the square rod. If you get wild vines, pick those of light color and small leaf. On this plan, by keeping the water level with the surface, in tbe seaaon of the worm, yon can put in one board in each flume once a week over night witbout any injury to the blossoms or berriea in the leaat; and I defy the worm to do any damage.

Thia ia the only sure method to raise cranberries successfully on low land, in my judgment. I will insure partiea against losa and pay in any event seven per cent. for any reasonable inveatment secured by real estate, and take it off their hands. I have made four hundred per cent. from the first three crops on all invested.

A Fruit Tree Ladder.

Editors Press:—I am a subscriber to the Press, and have been reading it now nearly a year. Permit me to say that I am well pleased with it, and will anrely renew my subscription when my time or year expires. I am a practical farmer and fruit grower, and therefore cannot well do without the Press, as I find much in its pages to interest and instrnct me. While there is much said about the rearing and pruning of fruit trees, I do not remember to have seen anything concerning the best manner of conatructing laddera to be used therein. Now, while others may write about cultivating, prnning, etc., I propose to say something about ladders. Aa the school-boy's compoaition would read, "There are a great many kinds of ladders," and I can assure you that many of them are so heavy that a boy of 12 years old can scarcely handle them. Many nse step-ladders, which are so bungling and heavy that it would make almost any man grunt to move one of them. Many are made of two by three scsntling; but the cheapest, lighteat, and most convenient, I think, are the ones which I make and use. I have used two for the lsst four yesrs, one 16 and the other 12 feet in length. The 16-foot one is three feet wide at bottom and four inches at the top; tbe shorter one in proportion; the sides were one inch by four.

Last summer, thinking that these were still too heavy, I procured four strips, one by three inches and 12 feet long, for 25 cents. I made one ladder which weighed 12¼ pounds, and I can assure you that it is the handiest and most convenient one I ever saw for use in an orchard. It is two feet wide at bottom and four inches at top. It is better thsn any step ladder I ever saw. I can stand it up against the outside of a tree and gather from the extreme ends of the limbs, or put it anywhere inside of the top so much handier than one which is wide at top; and then it is safe, don't fear, it will bear von and your load of fruit too. J. B.

Missouri Flat, El Dorado Co., Cal.

[Will Mr. B. give us more full details as to how he makea theae ladders?—Eds. Press.]

Stock Breeders.

Dairy Stock.

At the recent convention of the American dairymen'a association, Prof. Wetherell, of the Boston *Cultivator*, made an addresa on breeding dairy stock. We know Prof. Wetherell as one of the closest observers and critica of live atock at the East, and he is master of the art of generalization. We quote an abstract of his address, because it gives sonnd views concerning the improvement of dairy atock, which is an especially important matter to the dairymen of this coast:

Upon dairy stock depends dairy husbandry. Dairy stock is snch, as all agree, aa is bred and kept for the production of milk for the manufacture of butter and cheeae, either or both. That breed of cowa which from a given amount of feed will produce the largest mess of milk suitable for butter or cheese is the breed that dairymen desire. But what breed is that? Soil, quality of cattle, breed and price are to be considered. Short Horns, Holsteins and Swiss among large breeds, and Devons, Ayrshires, Jerseya and Gnernseya will be considered; also among the natives, nondescripts, are some good cows.

The Selection of Breeds.

If tbe dairyman have a farm suited to the keeping of large cattle, then one of the first three breeds will be selected. The Shorthorns have been said to be the best. The history of the Short Hornashows that before their breeding for beef, they were the finest large blooded milkers. Of Holsteins, Gerret Smith Miller, of Peterboro, reporta an average yield per cow per annum of 9,597 pounds and upwards. The speaker then gave facts and illuatrations going to show that the Holsteins are superior in quantity of milk to any other breed, while the quality is as good as the average of dairy breeds. Ayrshires were tried in the milking herds near London and found wanting, not yielding as much milk in proportion to the space they occupy as the Short Horns. On good keep they tend to fat rather than milk. The aole office of the Jersey cow is to produce the largest amount of rich and highly colored cream from a given amount of milk. Beauty of form, etc., are aecondary matters. Careful experiments have ahown that to make one pound of butter from the milk of Jerseys, six and one-third quarts of milk were necessary, while crossbreds reqnired a mucb larger amount. Eleven qnarts of the milk of natives were required. Thos. Motley, of Jamaica Plain, from his Jersey cow, Flora, in 50 weeks msde 511 pounds of butter. The Guernsey ia larger than the Jersey, muzzle broader, eye lesa prominent, nose a rich yellow or buff, the eye banded with the same color, of larger, smoother and more rotund form, and remarkable for the golden color of the butter, even excelling that of the far-famed Jersey.

Cross Breeding.

Breeding from a bull and cow of similar type, the progeny will be like, but of higher degree. A Short Horn bull whose hereditary power ia represented at 100, and a cow at 60, the offapring would he redneed to 40. Were the offspring a bull, both sire and offspring may appear equally perfect in form and general qualities, but the hereditary transmission is aa much greater in the former sire as the ratio of 100 to 40; hence the former is much more valuable for breeding purposes. By breeding animala of a similar type the offspring will be likely to possess a greater power of hereditary transmiasion of his characteristics. Animala of oppoaite charactera mutually weaken each otber's influence, and tho offspring possess the power of transmission in a reduced degree.

I am in favor of cross-breeding when a young farmer is nnable to purchase and keep high-bred atock, The breedor, by propor selections, and by joining like excellences and propertiea in sire and dam cannot fail to improve the quality of his stock. Therefore, to improve stock, good blood should be had on both sides. A young farmer or other beginning *de novo*

Continued on Page 122.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is at No. 351 Market St.

Grangers' Business Association of California.

Notice of Annual Meeting of Stockholders.

The Annual Meeting of the Stockholders of the Grangers' Business Association of California, for the election of Directors, will be held at the office of the corporation, in the building at the north-east corner of California and Davis streets, in the city and county of San Francisco, on Wednesday, the sixteenth day of February, 1876, at the hour of ten o'clock in the forenoon of that day.

T. J. Brooke, Vice-President. William Vanderbilt, Secretary.

Grange Song Books Again.

[Written for the Rural Press by Carrie A. Colby.]

We don't believe in apologies as a rule, but if anybody feels like grumbling because we are consuming valuable space with this already familiar subject, we will explain that during the last session of the State Grange we heard several of the Masters inquiring for a new song book, as their "splendid Grange choirs" had sung the old one through. Remembering a promise made at the time to call attention to a new work that come to our notice about a year ago, we hereby fulfill our promise and beg pardon for the delay.

We open at the title-page, which bears this legend:

"The Trumpet of Reform:" A collection of songs, hymns, chants and set pieces for the Grange, the club and all industrial and reform organizations. By Geo. F. Root, assisted in the preparation of the words by Mrs. S. M. Smith. Chicago: G. F. Root & Sons.

The preface sets forth that it is not intended to supersede the one now in use in the Grange, but a large portion of both words and music has been prepared especially for mass meetings, picnics, sociables and celebrations. There are opening and closing pieces, patriotic, Thanksgiving, funeral and New Year's, and for anniversaries of various kinds.

"The Trumpet Peal" is the initial song, and has a ring that is unmistakably reformatory in sentiment, while the tune is lively, and at the same time simple enough for tyros, written in the natural key. The next is, "Hear, Hear the Shout," song and chorus, air and words stirring throughout. The last half stanza gives a fair idea of the sentiment:

"Thrice armed they come, without beat of drum,
Or herald of war-like notes,
With the tongue and pen of unbought men,
And freemen's unbought votes."

Then comes our own inimitable Grange song, "The Hand that Holds the Bread," unaltered in air and word. "What's the Cause of this Commotion?" will suit those who enjoy musical expression for their pent up enthusiasm in Grange reforms, and are "bound to see it through." "Dare to do Right" is familiar to our Sunday school singers, and is just as good as ever in sentiment, but the air is not as pleasing to us as the sweet and appropriate one in "Happy Voices." "Sparkling and Bright" is the old stirring air with words adapted to the Grange, as the chorus sets forth:

"Now brothers all,
Tho' we rise or fall,
Endure our ills or mend them,
There's nothing will tell
For our rights as well,
As the courage that dares defend them."

"Yankee Doodle Granger" will do to sing next Fourth of July, at some of the mass meetings we are sure to hold if we can't all celebrate together in the old "cradle of liberty." "Upward and Onward," "Keep on Trying," and "Beautiful Spring" follow in a succession of inspiring and beautiful thoughts, set to appropriate airs. "Now What's the Matter, Farmers?" was evidently written for some of our Western brothers, smarting under railroad grievances.

On page 16 is the ever memorable tune that recalls to our brave soldier boys scenes in camp and field, and we may well sing "Tramp, tramp, tramp, the Grange is Marching," with a double thrill of thankfulness that the terrible war days are far in the past, and better times are dawning upon "all who toil beneath the flag of right." "Law," page 18, suits the spirit of our ritual, in discouraging its use among Patrons. The chorus runs:

"If you're fond of pure vexation
And sweet procrastination,
You're just in a situation
To enjoy a suit at law."

"No Mortgage on the Farm" will strike a chord that must render the words at least decidedly popular, the first stanza running thus:

"Mary, let's kill the fatted calf and celebrate the day,
For the last dreadful mortgage on the farm is wiped away;
I've got the papers with me, they are right as right can be;
Let's laugh and sing together, for the dear old farm is free."

"The Middleman," page 22, jingles to the tune of "Coming Thro' the Rye," in this wise:

"It is an ancient farmer man,
And he is one of three;
He said unto the middleman,
We have no need of thee;
This man here makes his cloth so strong,
And sells it unto me;
He buys my wheat, and thus we save
The slice that went to thee."

"Hoe Out Your Row," page 25, is a familiar text, and the Grange will do a good work if it teaches young and old to practice it thoroughly. "Forgive and Forget" and "They're Coming Home To-day" are beautiful in sentiment and tune, and speak to the heart in a language we shall be the better for remembering. "Success to the Jolly Old Farmer" is a wish that has passed into a proverb among those who are beginning to understand that upon this depends all substantial prosperity. Page 38 says "There's a Good Time Coming," when

"The pen shall supersede the sword,
And right, not might, shall be the lord,
In the good time coming—
Worth, not birth, shall rule mankind,
And be acknowledged stronger—
The proper impulse has been given,
Wait a little longer."

And the reply:

"We are willing to wait a little longer,
Till the good time coming comes.
It is dawning even now, boys," etc.,

Is familiar to all our Good Templar folks, and, we think, very inspiring. "Now," page 40, has the same ring, and is a bugle call to buckle on the armor:

"For a place in the ranks awaits you,
Each one has some part to play—
The past and the future are nothing
In the face of stern to-day."

"Of Debt Beware" is a good doctrine for the times, and well says

"Beware, beware,
Too many wants, too little pay,
Too little caution day by day."

"Go Work Upon a Farm" is good advice also, and must be practical while so many of Uncle Sam's acres lie untilled.

We turn the successive pages, and find similar stanch, lively tunes and sentiments prevailing, but the time would fail us to notice all. We must stop, however, at page 98, and listen to the predictions of "A Hundred Years Hence," which, for the peace of our posterity, we hope may prove true. Pray bear with me while I quote one stanza:

"All cheating and fraud will be laid on the shelf,
We'll neither get drunk nor be bound up in self,
The pleasure of sinning—'tis all a pretence,
Such things will be banished a hundred years hence."

"The Grand March of the Brotherhood" nearly closes the department devoted exclusively to Grange songs. The words are adapted from our own pleasantly familiar song beginning "An Order of Brave Brotherhood," but we must forgive the slight alteration for the sake of welcoming the majestic air of the "Marseillaise" to our chaplet of Grange tunes. "Hark to the Clarion!" comes in as a finale, but the air has not the jubilant ring that so many times echoed from our enthusiastic choir during the session of the State Grange at Stockton. (See page 92 of our Grange Songs).

In loyalty to our dear old Grange song book, we must say that nothing with us will ever take its place, associated as it is with three sessions of the State Grange, our little gatherings at Nord and sister Granges, and all the pleasant faces of the good people in Oregon and California whom we have known as Patrons. We almost fancy that our own well worn copy is redolent of tuberoses, and flowers long since faded, but cherished as gifts from Patron friends at parting, and almost every page suggests some incident that is woven with the anxieties, hopes and triumphs of our Order during the past two years of trial and success. For ourselves, when we have sung the book through, we want to begin and sing it through again. Indeed there are several of the best pieces that we have never heard sung in any Grange. Page 102 and 104 are among these, and, we think, particularly fine. Page 98, "Unfurl, Unfurl the Patron's Banner," is a souvenir of State Grange, and also of a young brother from Tulare, at whose suggestion we learned it. Turning back one leaf is a gem that belongs in our minds to the charming family of the Master of Alhambra Grange, so well does it describe them and their surroundings, and so often have we sung it in their company. Let us take the sentiment home to our hearts, for the sake of the restful spirit it breathes.

"A quiet home where love and peace are found,
Where each in love performs his willing part,
Where cheerfulness and sweet content abound,
Such is the home that wins upon the heart.

"A home where shade trees and luxuriant vine,
And shrub and plant in all their beauty grow,
And bright birds sing and fond affections twine;
Ah, this is home—a paradise below.

"Seek ye, O Patrons, for the pure and good,
Oh, seek ye love above all other prize,
For this possessed and rightly understood,
Ye need not wait for bliss beyond the skies."

But the little Granger has torn up all his paper, thrown away his glass stoppers, spools and spectacle cases, and like Oliver Twist, calls for "more." I guess his "boo, boo," means "bread and milk," so good bye, dear Rural and lovers of Grange songs, until another leisure hour. Carrie A. Colby.

Nord, Butte Co., Cal., Jan. 28th, 1876.

A Double Commission.—We understand that our California Bro. Wright, in addition to his commission to introduce the Order in Great Britain, is also authorized to look carefully into any advantages that may offer from international co-operation in business between the producing classes of the two countries.

Destruction of Gophers.

The Master of Centerville Grange sends us the following report of a discussion by the Grange on a subject of general importance. This is a movement in the right direction. By such discussions of practical topics, Granges in all parts can add to the fund of general useful knowledge, because the intelligence and experience of each Grange can be made to benefit all the others. The following is the report:

Editors Press:—The question of "what is the best and most economical way to exterminate the gophers" was discussed with considerable interest at the last meeting of the Centerville Grange.

Cats and traps and various poisons administered in many different ways all had their advocates. The conclusion seemed to be that cats, traps and poisons administered in their open holes was only a retail way of killing them, and with painstaking would answer a good purpose where gophers are scarce, and the territory to be cleared small. But where the territory is large and the gophers numerous, wheat strongly impregnated with poisons and placed by the gill in their underground runs was the only wholesale way of exterminating them advocated by any of the members.

The underground runways are permanent roads, and if not disturbed are no doubt used by gophers for scores of years, and are usually found running parallel with the surface of the earth, from six to 15 inches below, and of large dimensions.

Poisons placed in those runways not only kill those traveling in the runs at the time, but have been known to kill those that may come that way weeks after.

Phosphorus was considered the cheapest poison, but at the same time the most dangerous to deal with, on account of its tendency to spontaneous combustion. J. M. Horner.

Washington, Cal., Feb. 6th.

[A sharpened stick some two inches in diameter is the best probe wherewith to find their main runways. A pin is inserted cross-wise, 12 inches above the point, to place the food on in inserting.—Eds. Press.]

Grangers' Business Meeting.

The stockholders of the Grangers' Business Association of California met in their storerooms, over the office, on Wednesday. President Daniel Inman, presided. About 100 members were present. Much interest was manifested. The Board of Directors reported progress on the work of the Association for the year, which we shall give with a further report, as fully as desirable for our readers hereafter. The lateness of the meeting prevents a lengthy report this week. Over four thousand shares of the stock was represented, and yet there was not a quorum for business.

The bad condition of many parts of the country for traveling undoubtedly kept back enough Patrons to have made a handsome majority. The fact is well proven by this meeting that farmers do not heartily take to the proxy system. Quite a number of spirited speeches were made, and the meeting adjourned to the third Wednesday (the 19th) of April. From the determined interest shown by those present, we judge the next meeting will be a full one, and that the postponement, and thereby extended conference, will prove a benefit.

Washington Matters at Washington.—A dispatch from the national capital, dated February 14th, states that Senator Kelly presented a memorial of Walla Walla Grange, Patrons of Husbandry of Washington Territory, asking an appropriation for the construction of a canal at the Cascades of the Columbia river, Oregon. Also a petition of the citizens of Columbia county and Walla Walla, Washington Territory, in favor of the passage of a law annexing Walla Walla and Columbia counties to the State of Oregon.

A Good Lesson.—The Grangers throughout the South are very generally agitating the question of a mixed agriculture for those States. They argue that the farmers there should plant more grain, raise more stock, cultivate less cotton and do more to encourage manufactories in that portion of the country. The Kentucky Patrons are urging a more general cultivation of tobacco in that State. Patrons are everywhere learning that mixed agriculture pays best, affords more luxuries and a better living.

Co-operative Associations.—We have received a copy of the pamphlet recommended by the National Grange, giving "Rules for Patrons' Co-operative Associations of the Order of Patrons of Husbandry, and directions for organizing such associations." The pamphlet will be mailed post-paid, by sending five cents to O. H. Kelley, Secretary, Louisville, Ky.

Lady Officers.—Our Eastern exchanges notice, in complimentary terms, the prevalent California custom of electing large numbers of lady members to offices in the Grange, and express confidence that the ladies so elected will fully warrant the trust thus imparted to them.

Fruit Growers' Association of Florin.

Editors Press:—The principal population of this young and flourishing burg is composed of fruit growers, and the Grange is made up of the same material. Their want, an easy way of transporting fruit to market, is right at hand; there is a station in their midst. To bring together more of a thorough working order, the growers have assembled and drawn up a set of by-laws or articles—taken from the State fruit association that first assembled at San Francisco, and arranged to suit present wants. A set of officers and a board of directors were elected. Regular meetings will be held quarterly, and call meetings by order of the president and a majority of directors. The box factory is already under way. The machinery will soon be set for spring trade; a grist mill will be attached in the fall. The large tract of land belonging to the Grange Association has been divided up in small lots, from two to five acres each, and sold. The occupants will soon take possession, thereby increasing the population and cultivating the soil. A hotel will soon be under way.

Discussions on topics relating to fruit culture will be held. The uniform sizes of packages, grading of fruit, shipping, marketing of fruit, drying, and all subjects that may interest and benefit all engaged therein will be discussed. I will attach the officers' names: Jas. Rutter, president; W. H. Robenson, vice-president; —— Anos, secretary; W. V. Miller, treasurer.

The Grangers are working in a more systematic business-like form, adopting plans that our Eastern brothers have matured—the supplying of all wants in farm and house by each Grange, at wholesale prices. G. R.

Florin, Sacramento Co., Feb. 12th.

The Grange Centennial Encampment.

The chairman of the committee having the management of the Grange Centennial Encampment in hand, has announced that a plot of ground has been secured at Elm station, on the main line of the Pennsylvania railroad, within six miles of the business portion of the city of Philadelphia and less than three miles from the Centennial grounds.

The tract covers over forty acres, with improvements such as a mansion house containing seventeen rooms, a large barn, a tenant house with four rooms, besides ample shade and an abundance of good water. The price agreed upon is $2,000. The lease has been made with two parties, who are bound in articles of agreement not to lease any remaining portions of their farms to other parties for the sale of liquors, refreshments, or for any purposes whatever. The committee have already obtained possession, and the lease will not expire until April, 1877.

Buildings suitable for temporary summer residences will soon be erected for the accomodation of members of the Order and their families at cheap rates. Provision will also be made for those who propose to bring or live in tents or booths, at the cheapest possible rates.

The "Sovereigns of Industry."—The growth of this Order in the United States, especially in New England, has been wonderful. In less than two years the Order comprises, in Massachusetts alone, 159 Subordinate Councils, with a membership of 15,000 persons—male and female. The objects of this order, as has already been stated in these columns, is to accomplish for the mechanics and workingmen of the country, other than farmers, what the Patrons of Husbandry are doing for the agricultural interest. As with the Patrons, women form an important and valuable feature in the order of S. of I. Experience has shown that their presence exerts a harmonizing and refining influence, strongly conducive to order and decorum. The number of co-operative stores under the management of the S. of I. in Massachusetts is now 65, with a capital of $50,000, and monthly sales reaching an average of $30,000.

Pacheco Grange.—The Pacheco Grange was instituted on Saturday, February 5th, by District Deputy State Master, Nathaniel Jones, with 30 charter members. The officers elected are as follows: F. M. Warmcastle, M.; H. Sanford, O.; A. Martin, L.; F. Sanford, S.; A. Carpenter, A. S.; J. H. Cornwall, C.; B. R. Hathaway, T.; M. Hays, Sec'y; C. Clark, G. K.; Mrs. A. Boss, Ceres; Miss Kate Sanford, Pomona; Miss Almira Morgan, Flora; Miss D. Downing, L. A. S. The Grange will hold its meeting at the Odd Fellows' hall, and the officers elect are to be installed on February 19th, by District Deputy State Master Jones, and other qualified officers of the Order.

Emigrant Aid Association.—The Stanislaus Pomona Grange, at its meeting held at Modesto on Monday, February 7th, passed the following resolution and ordered its publication in the Rural Press:

Resolved, That it is the sense of the County Grange of the county of Stanislaus that it is inexpedient for the State of California, at the present time, to extend any aid or pecuniary assistance whatever to any Immigrant Aid association.

Grange stores upon the Rochdale plan are being started in almost every county in Kentucky. There about 100 now getting under way.

From the Granges.

Castoria Grange.

EDITORS PRESS:—Our installation ceremonies were performed February 3d, by Deputy Overhiser in his most happy and efficent manner. There were some festivities intended which were prevented by the sad occurrence of the death of onr Chaplain-elect, Mr. Peter Smith, the day previous, and also bereavements in the families of other members of the Grange. Bnt as a social gathering, onr installation was a grand anccess. Our pleasant hall was filled in that manner happily expressed by the Hibernian who declared that "when he had got a little too much he had jnst enongh."

Our Grange is perhaps just now carrying a little too mnch dead weight, bnt we intend to remedy that and soon appear in fighting trim.

In this section the land is mostly of a sandy nature, and our abundant rains have not been wasted. The farmers are full of hope in the coming harvest, but there is one foe that is fighting for a large share of the spoils, and the battle rages desperately along the whole line. It is Mr. Squirrel on one side, with his shrewdness and tenacity, his wonderfnl skill in multiplication; on the other side is Mr. Farmer, using every means in his power, without any regard to the rules of honorable warfare; guns, poisons, traps, strategy, force and fraud.

CASTORIA.

Castoria, San Joaquin Co., Feb. 6th.

Tree Planting at Panama Grange.

EDITORS PRESS:—We had an interesting ceremony yesterday, previous to the opening of our Grange. It was a tree planting. Our school teacher, Mrs. Whittock, gave notice one week previous that any one who wished to come and bring a tree of their own choosing and plant it on the school grounds, would be made welcome. The day was very unpleasant, foggy and raining some, but there was a fair turn out, and some trees were planted, and a very appropriate address made by our county superintendent, Mr. L. A. Beardsley.

We then adjourned to the schoolhonse, and had a repaat such aa Grangers know how to appreciate. We think we have taken a step in the right direction. How much pleasanter it would be for our little ones to have their schoolhonse aurrounded by trees and vines during the warm spring days and the sultry fall months, than to have the hot sun bearing down on ita bleak sidea and bare roof. Think you, sir, they would have aa mueh distaate for the dozy school room as they now have? I think not. We should all aurround our homes with that whioh is pleasing to the eye, and the inside more attractive. Our boys would not seek companions elsewhere. F. P. MAY.

Panama, Kern Co., Feb. 7th.

From Washington Grange.

EDITORS PRESS:—As you seldom hear from our Grange or its doings, it might be thonght that we are enveloped in a Rip Van Winkle doze. Not so, however, for we have a live Grange, especially so as onr members are composed from three different counties, about equally divided, namely: San Joaquin, Amador and Calaveras. Nevertheleaa — barring conuty affairs—our interests are identical, and we all work for our common good; everything of interest, whether local, county, State or national, receives the attention of our Grange.

At the last meeting a committee was appointed to draft a memorial to be sent to our delegation at Sacramento, declaring in favor of Bancroft & Co.'a home industry and the Pacific readers. Also a committee waa appointed at a previoua meeting to take into consideration the memorial from the San Luis Obispo Grange, asking our co-operation and in favor of abolishing the duty on grain and wool sacks, burlaps, etc. They reported adversly for good and snfficient reason, but too extended to insert it here. It was, however, setting forth that the Patrona of Hnsbandry, and farmers generally, are willing at all times to bear their just proportion towards the snpport of onr government and institutions, knowing well that either directly or indirectly we are bound to contribute the lion's share.

Helping the Helpless.

The members of this Grange may justly feel prond of their charitable inatincts, and are always ready to lend a helping hand to those in need. At onr last meeting a proposition to receive donations for a lonely widow, and a sister at that, was entertained, and our Worthy Master appointed Brother C. as a committee of one to receive and deliver all contributions made for that purpose. He atarted next day bnt one, assisted by anotber brother, with two horsea and a wagon; bnt before arriving at their destination it required two extra horses to convey the givinga to their worthy recipient. This speaks for itself.

CHAS. BAMERT, Sec'y.

Camanche, San Joaqnin Co., Feb. 12th.

Sunol Grange.

EDITORS PRESS:—Snnol valley, proper, contains about 1,500 acres of land, as good as any in the State. The Calaveraa creek runs through the centre and the Arroyo Bayo creek akirts on the north-west end of the valley; they form a junction in the Alameda canon; the creek then takes the name of Alameda. All the creeks have an immense growth of timber. Perhaps a more picturesque valley is not to be found on the western slope of the Sierra Nevadas. The principal productions of the valley are wheat and barley. The prospects of an abundant harvest is decidedly favorable at present. The rainfall of the season, as per rain gauge kept by Mr. C. Hadsell, has been 19 93-100 inches.

Our Grange has taken a new lease of life with a prospect of becoming a fair representative Grange. S. W. MILLARD.

Sunol, Cal., Feb. 7th.

Upper Lake Grange.

EDITORS PRESS:—I send you a list of officers elect for the ensuing year for Upper Lake Grange, No. 109, Patrons of Husbandry, who were installed on the 8th of January, by Past Master Cutler, of Lakeport Grange. Owing to the prevailing storms, the attendance was small, but it was a very enjoyable season to those who put in an appearance.

Onr membership is 84, and still they come. Most of the members have a lively interest in the prosperity of the Order, and are doing what they can to make it a power in the land for good. Those who take your excellent paper are much pleased with it. If all would take it, read and digest its contents, they would realize richer returns than from stock in bank.

Until my attention was called to the fact in your paper of the 22d ult., I was not aware that lemons were raised as far north as Sierra valley. By a little extra squeezing I suggest that they might have a cool, refreshing beverage, on warm aummer days, at their harvest feasts in Sierra Grange. GEO. A. LYON,

Lakeport, Cal., Feb. 4th. Sec'y.

Election of Officers.

BODEGA GRANOE, No. 34, BODEOA, SONOMA CO.—A. S. Purrine. M.; I. Cunningham, O.; Wm. Kee, L.; S. Boyd, S.; A. Fox, A. S.; James Kee, C.; James Watson, T.; E. H. Cheney, Sec'y; Wm. Patterson, G. K.; Sister A. S. Purrine, Ceres; Sister R. Hakes, Pomona; Sister E. Joy. Flora; Sister E. H. Cheney, L. A. S.

CASTORIA GRANGE, No. 54, CASTORIA, SAN JOAQUIN CO.—F. J. Woodward, M.; H. W. Cowell, O.; L. H. Nicewonger, L.; W. Harelson, S.; O. P. Munson, A. S.; ——— ———, C.; J. Cowell, T.; Walter Graves, Sec'y; D. Reynolds, G. K.; Mrs. Lorain Cowell, Cerea; Mra. T. Graves, Pomona; Mrs. E. Reynolds, Flora.

CALAVERAS GRANGE, No. 182, JENNY LIND, CALAVERAS CO.—M. F. Gregory, M.; C. Gall, O.; Mrs. Gall, L.; T. M. Pawley, S.; C. Morril, A. S.; Mrs. Kirk, C.; J. W. Kirk, T.; R. Thompson, Sec'y; C. Topper, G. K.; Mrs. Morril, Ceres; Mrs. Pawley, Pomona; Miss Anna Helfridge, Flora; Mra. Gregory, L. A. S.

POWAY GRANGE, No. 236. POWAY, SAN DIEGO CO., CAL.—J. M. Woods, M.; F. Reetzkee, O.; W. Walden, S.; A. K. Cravath, A. S.; W. Huntley, C.: N. Nelson, T.; G. Hofman, G. K.; E. D. French, Sec'y; Miss Hand, Ceres; Mrs. C. S. French, Pomona; Miss Ada Feeler, Flora; Mrs. S. C. Watson, L. A. S.; Trustees, C. C. Watson, three years, A. Mitchell, two years, A. L. Feeler, one year.

RIVERSIDE GRANGE, No. 128, RIVERSIDE, SAN BERNARDINO CO.—Election, Dec. 18th: E. G. Brown, M.; A. J. Twogood, O.; J. H. Roe, L.; William McDowell, S.; T. Cundiff, A. S.; G. D. Carlton, C.; W. A. Abbott, T.; W. O. Prioe, Sec'y; Tracy Abbott, G. K.; Mrs. Abbott, Ceres; Mra. McDowell, Pomona; Mrs. Sheldon, Flora; Miss Lettie Brown, L. A. S.

UPPER LAKE GRANOE, No. 109, LAKEPORT, LAKE CO.—Election, Dec. 11th: J. B. Robinson, M.; Michael Shepard, O.; D. P. Shattock, L.; A. J. Doly, S.; G. K. McMath, A. S.; D. T. Taylor, C.; R. P. White, T.; G. A. Lyon, Seo'y; G. W. Ford, G. K.; Mrs. E. L. Lyon, Ceres; Mra. E. L. Ford, Pomona; Mrs. M. C. Thompson, Flora; Mrs. Lucy Shepard, L. A. S.

WINDSOR GRANGE, No. 33, WINDSOR, SONOMA CO.—James Kennedy, M.; R. A. Petroy, O.; H. J. Pool, L.; Henry White, S.; T. J. Barna, A. S.; S. V. R. Klink, C.; Henry Bell, T.; Eleanor L. Lindsay, Sec'y; W. H. Grove. G. K.; Mrs. S. B. Klink, Ceres; Mrs. Mary M. Clark, Pomona; Mrs. Mary Pool, Flora; Mrs. N. J. Kennedy, L. A. S.

THE GRANOE IN CANADA.—Every mail, says the *Canada Granger*, brings news of some new Granges being formed in different parts of the Dominion. In the year 1875, 230 Granges were organized, and the coming year promisea to double that number. The progress of the Order has been most remarkable. From a few atraggling Granges two years ago, we now nnmber 318 in all parts of the Dominion.

THE RURAL PRESS AS A PRACTICAL WORKER.—M. E. T. writes: Practical workera as well as writers are what we need to-day in our Grange papers, at least. I wish you all snccess in yonr efforta in the direction of a sensible, practical paper, which cannot fail to greatly influence publio opinion, and help to stem the tide of extravagance and folly which seems to threaten California society.

INDIANA STATE AGENCY.—The sales of the Indiana State Agency amounted to $310,580 dnring the year 1875, at a total cost of only $6,087. We believe there are no conuty agencies in that state, all the business being done directly with the State Agent. It ia claimed that county agencies only add to the cost, without corresponding advantages.

AGRICULTURAL NOTES.

California.

ALAMEDA.

THE FOASIL OX.—*Independent*, Feb. 12: Dr. L. G. Yates, of Centerville, recently discovered, near Mission San Jose, the skull of a fossil ox. He writes the following description: The skull lately discovered by the writer and Mr. Munyan near Mission San Jose, in this county, was found in post pliocene gravel about 30 feet below the surface, and within 10 feet of the spot where the writer took ont the upper molar and a part of the lower jaw, etc., of a large fossil elephant some years since; it was imbedded in a nearly upright position in the gravel of an old creek channel which had formerly run at right angles with the present water course, and subsequently been filled np. In cleaning away the gravel from the skull, a portion of a molar tooth of a fossil horse was found in close proximity to it. The writer has at various times found bones and teeth of fossil elephants, mastodons, llamas, horses and other vertebrates in the same deposit. The skull is entire with the exception of some of the teeth and the points of the horn cores. The dimensions of it, as taken before the specimen was removed were as follows: Length of skull, 25 inches; width across orbits, 15¾ inches; distance between bases of horn cores, 15 inches; diameter of horn cores at base, 6 inches; depth of skull from top of orbits to surface of molars, 9 inches. The sknll is evidently that of an old animal, crowns of the teeth being very much worn and the characteristic folds of enamel nearly obliterated. The following are the dimensions of our fossil as compared with the measnrements of the corresponding parts of the skull of a buffalo, as given by Prof. Leidy:

	FOSSIL.	BUFFALO.
Distance between base of horn cores	15 in.	12 in.
Length of horn core along lower curvature	24 "	12 "
Breadth of occiput	11½"	10 "
Depth of occiput	7 "	6½"
Vertical diameter of occipital foramen	18 lines.	1¾"
Transverse of the same	23 "	2 "
Second upper molar antero-posterior diameter triturating surface	16½"	15 lines.
Transverse diameter	15 "	12¾"
Third upper molar antero-posterior diameter	18 "	15 "
Transverse diameter	14 "	9¼"

COLUSA.

THE PARKS DAM IN COURT.—*Sun*, Feb. 12: The important case of Moulton vs. Parks, tried at the laat term of our district court, has been decided by Judge Keyaer for the plaintiff. The action involved the right of Parks' company to construct and maintain the dam known as "Parka' dam," and waa for damages already sustained by the plaintiff and for an injunction against the further coustruction or maintenance of the dam. Jndge Keyser gave the plaintiff judgment for $100 damages, and granted a perpetual injunction as prayed for in his complaint. The case is a very important one and has created a profound interest in this community and throughout the State. The trial of it occupied a week; the known ability of the attorneys engaged enhancing the interest felt in the final result. A. L. Hart, Esq., and Col. F. L. Hatch, tried the case for the plaintiff, the successful party; while Judge I. S. Belcher and Judge Van Clief, of Marysville, represented Parks and his associatea. It ia unnecessary to remark that the case was ably managed on both sides. So it is nnnecessary to say that Judge Keyaer'a decision ia received by our people generally with expressions of nnbonnded gratification. The case ia not ended, however, for Mr. Parks will undoubtedly appeal from Judge Keyser'a decision to the Supreme Court of the State. There the fight is to be finally made, and the fate of the dam or the right of Parks and his associates to construct and maintain the dam is to be finally determined.

CONTRA COSTA.

FOR COYOTE SCALPS.—*Gazette*, Feb. 12: Coyotes are not very numerous anywhere in our section, but there are atill enough of them to do considerable mischief in depredating upon the flocks of sheep raisers, and it is quite desirable the county should be rid of them. But, as they are not choice eating, nor game that sportsmen find any glory in hunting to the death, there has for some yeara been a general desire expressed for the offer of a bounty inducement to destroy them, to which the Board of Supervisors at their meeting thia week have responded by the adoption of an ordinance nnder which they will pay $2.50 each for the scalpa.

PROSPECT.—There is likely to be no lack of a aufficiency to make good grain crops if the farmera get an opportunity to complete their seeding during the present month. The breadth of land already in grain is probably as great as it haa been in any previous year, and will be extended with the first opportunity of favorable weather and condition of the land.

FRESNO.

THE AORICULTURAL CONDITION. — *Expositor*, Feb. 12: The prospects are favorable for very lively times in thia county during the ooming snmmer and fall. Feed is excellent and atock of all kinda ia in excellent order, and in consequonce a considerable nnmber of animals will be shipped to San Francisco during the next few months for slaughtering, and following thia will be the large income from the spring wool clip. The cropa never looked more promising than now. The soil ia moiat and the atmosphere favorable to the rapid growth of the grain crops. The acreage in grain is largely in excess of any former season, and if the season continues propitions, and certainly the indications are favorable, the yield will be large. It will reqnire a large nnmber of laborers to harvest the grain, and there will be no need of men tramping around in search of labor. The returns from the grain crops will therefore also put lots of money in circulation. With these prospects abead people ought indeed to be cheerful. There are other matters of congratulation besides these, too. The settlers are raising more vegetables, fruits and articles of home consumption, thns keeping at home considerable money that has heretofore been sent abroad. It is apparent also that the irrigation system of this county will be considerably extended dnring the summer and fall, and bronght to a higher degree of perfection.

KERN.

THE SHEEP MOVEMENT.—*Courier*, Feb. 12: Mr. W. W. Hudson, of Tejon, was in town this week. He reports quite an exodus of sheep lately, no less than 34,000 having passed the fort on their way to Arizona. Captain Hutton, whose departure for that region with 10,000 sheep we chronicled some time ago, had not, at last accounts, proceeded beyond Elizabeth lake. A man jnst in from Arizona came by the upper route, the ronte that we are informed Captain Hutton designed taking, and reports it impossible to drive sheep to Arizona that way now. From Red Rock canon to the Colorado there is not enongh feed for a jack-rabbit, according to the account of the traveler.

LAKE.

SOME TAILS.—*Bee*, Feb. 10: There were 37,513 sqnirrels destroyed in Lake conuty last year, the tails of which were presented to the Conuty Clerk with the claim for bonnty. Besides these, there were probably thousands more destroyed by poison placed in their holes —of course, their tails were not counted.

LOS ANGELES.

GOOD FEED.—Cor. Merced *Express*, Feb. 12: The alfilarea of onr Sonthern coast—and which you do not have—is from one to one and a half feet high, and to say that live stock are fat now would consequently be a work of supererogation.

MERCED.

THE STORM.—*Express*, Feb. 12: The roof of the Granger's warehouse, at Plainsburg switch, was blown off. But trifling damage will result from this accident, as the company immediately repaired to the scene of the disaster, and with but little delay succeeded in placing a temporary ahelter over the grain which was left exposed by the accident.

NAPA.

THE EAST SIDE.—*Register*, Feb. 12: The drive up the Monticello road ia especially pleasant at this time. The road is dry and in very good condition for some miles out—there being only a few bad places. The hilla and the lowlands are all richly clothed with verdure, and the treea are vocal with thousanda of birds. Most of the grain fields are green; but a few belatcd ranchers are now pntting in a crop, and if the latter raina are not entirely wanting a good harvest will be gathered by the late sowers, as well as by the early ones.

NEVADA.

GRAPES AND GRAIN.—*Tidings*, Feb. 12: Mr. Prather, of Green valley, is planting a vineyard of 25,000 vines, all of very choice varieties. The early sown grains are in excellent condition and give every promise of the largest returns.

PLACER.

ALMONDS.—*Herald*, Feb. 12: J. W. Hulbert haa already commenced to get hia ground in condition for an almond grove on the place he purchased recently from Mr. Payne. For this purpose he has aelected a tract of ground sloping toward the north, for the reason that this side of the hill, receiving the rays of the snn less direct, is naturally oooler, which condition tends to keep the trees back in the spring nntil the danger from late frost is past. Late frosts are regarded as the almond's only enemy, and this method, simple as it may seem, we think will avert all danger in that direction. C. T. Adama, who owns a fine foothill farm between Auburn and Newcastle, intends aetting out some 200 or 300 young trees this year in addition to his present fine orchard and vineyard. Among the rest he will set out some almond trees, and abont 25 orange trees.

SAN BENITO.

OFFICERS ELECTED.—*Enterprise*, Feb. 12: Tho San Benito agricultural association held a meeting laat Saturday for the purpose of electing officers to manage tho sooiety for the enauing year. The following were chosen: President, R. M. Shackelford; Vioo-President, H. Falkinburg; Secretary, S. F. Cowan; Treasurer, Wm. Eastman; Directora, Sam. Duncan, Wm. Eastman and L. Edwarda.

SAN DIEGO.

THE OUTLOOK.—*World*, Jan. 29: The outlook to-day for the farmer in this county ia of the best. We have now had an average of rain that warrants the belief that the aeveral interests in the conuty will be amply forwarded and favored by it. In some parts of the high lands the rainfall has already gone up to about 12 inches, and that ia over the average of the wanta of the section, while in all others the fall has been equal to the demanda of the soil, and still we have two months in which to expect rain. The grain crop is assnred, we think, and will make a fine return. The stock men have ample grass and water, and their

(Continued on Page 124.)

By and By.

Under the snow are the roses of June;
Cold in our bosoms are the hopes of our youth;
Gone are the wild birds that warble in tune;
Mute are the lips that have pledged us their truth
Wind of the winter night, lonely as I,
Wait we the dawn of the bright by and by.
Roses will bloom again,
Sweet love will come again,
It will be summer time by and by.

Patience and toil are the need of to-day—
Toil without recompense, patience in vain;
Darkness and terror lie thick on our way;
Our footsteps keep time with the angel of pain.
Wind of the winter night, far in the sky,
Watch for the day star of dear by and by.
Parched lips shall quaff again,
Sad eyes shall laugh again,
Earth will be happier by and by.

Cruel and cold is the judgment of man—
Cruel as winter and cold as the snow;
But by and by will the deed and the plan
Be judged by the motive which lieth below.
Wail of the winter night, echo our cry,
Pray for the dawn of the sweet by and by.
When hope shall spring again,
When joy shall ring again,
Truth will be verified by and by.

Weary and heart-sick we totter along;
Feeble the back though the burden is large;
Broken the purpose and hushed is the song,
Why should we linger by life's little marge?
Wind of the winter night, hush! and reply—
Is there, oh is there, a glad by and by?
Will dark grow bright again,
Burdens grow light again,
And faith be justified by and by?

Dreary and dark is the midnight of war;
Distant and dreamy the triumph of right;
Hours that are desolate, hearts that are sore,
Soon shall the morning star gladden our sight.
Wail of the winter night, so like a sigh,
Herald the dawn of the blest by and by.
Freedom shall reign again,
Peace banish pain again,
Right shall be glorified by and by.

Mary Heth and the Law.

[Written for the PRESS by MRS. C. I. H. NICHOLS.]

"Well, I never," murmured Aunt Polly, as she read from the provisions of a bill before the Legislature that "persons licensed to sell intoxicating drinks shall give bonds in the sum of $1,000, to pay all damages which the community or individuals may suffer by reason of the traffic; also to support all widows, orphans and paupers made such thereby. Married women authorized to prosecute in their own names." "I never!" repeated Aunt Polly, and the old lady knit and smiled, and smiled and knit.

"What is it, Aunt Polly? What are you smiling at?"

"Why, child, this bill. If them legislators meant business—but they don't—they'd have put the bonds at a hundred thousand dollars instead of one thousand. Look at the widows and orphans and paupers made by a single rum seller! A thousand dollar bond for their support, eh? And the tax on community for jails and criminal prosecutions and incendiarisms—a thousand dollar bond! They don't mean business. No, no, Kitty, it's just a bread pill to content temperance folks with an idea that something is being done for the cure of intemperance. But that ain't what I was smiling at. Somehow it reminded me of Ned Thornton's plea in the case of Mary Heth. You never knew Ned. He left Pitcherville some years ago; but you know Mrs. Fanton, Mary Heth that was. Her history is equal to one of Mrs. Southworth's novels; a great deal more of humor, and as much real, deep tronble. I've known Mary from the time she first married and moved to Pitcherville. And she wa'n't none of your languishing, dying heroines, I can tell you. She laughed and cried all together, for, as she used to say, 'there was so much of the ludicrous mixed up with her ill fortune, her heart was always in April;' and with her fine health, and baby love smiling on her all day long, she couldn't be quite miserable and hopeless, let Joe do as he would. 'Aunt Polly,' she would say, 'husband and wife ain't *one*, if the law does say so; and what a blessed thing it is for Joe, as well as me and baby, that he can't swallow me, body and soul, as he does my earnings. But how much happier we might all be if the law didn't give him the right to what I earn. What a nice home I would make of these bare walls! Baby should have a crib, and that pretty quilt Joe sold to get liquor, would be so becoming to it! We would have a good bed and white cloths for our table and whole crockery to set it out with. And Joe should have an arm-chair right beside baby's crib, and I—O, Aunt Polly! I wouldn't worry if Joe did drink and gamble away his earnings. I could support him and Willie and baby, and be so happy, if only I wa'n't afraid of his selling off everything so that I can't make the children comfortable and have something by me in case I'm sick and can't earn comforts as we need them.' And I believe Mary would have been happier with her earnings than many women who have husbands to support them in idleness and luxury. For Joe did not abuse her personally, except to drink and gamble away his earnings and pawn everything she brought into the house, that anybody could be found mean enough to take. And Mary loved to work and could always find plenty to do; for she had a cheerful, painstaking disposition, and nobody employed her once that didn't think of her first when they wanted help again. Ah, Mary Heth was a jewel of a wife, and such a mother! Her innocent, happy ways compensated to her children for what rich parents supply in nurses and toys. She was a child-woman, winning her children along in goodness and knowledge by seeming to keep just a step ahead of 'em. I've never seen her like, child, never!"

"Do, Auntie, tell us all about her and what you were laughing at, I do so love to hear your stories!"

"Well, Kitty, I'd been living here a year when I went back to Pitcherville on a visit. The stage set me down at your father's, but your mother and all the girls had gone over to the town hall. There was nobody at home but little Jack, and he said they had gone to hear the proceedings with Mary Heth; that Mary had been taken up for stealing, and the women in Pitcherville had all turned out to stand by her in her trial. Of course I hurried to the hall, for Mary was a great favorite of mine, and I knew better than to believe she had intentionally broken the laws. I was just in time to get at the facts before the case was called. It seemed that things had gone worse and worse with poor Mary; for Joe had worked less and drank and gambled more. Winter was at hand and Mary was short of clothing, and wood to buy and everything dear. Well, on a previous night Joe had come in half drunk and asked for money to buy drink. Mary told him she had none, and it was the truth, for Mary made it a point never to deceive Joe, but to tell the truth and take the consequences; for as she said, 'when his confidence in her give way all would be gone.' Joe went out swearing; and to save wood and lights—for she had nothing to do—Mary covered her fire and went to bed, supposing that Joe, as usual, had gone to the tavern to spend the evening. But she hadn't been in bed long before Joe returned, struck a light, and after rummaging through the house went out again. Next morning when Mary 'woke Joe wasn't there; but it was nothing uncommon for him to be out all night when he got on a drunken spree, so she didn't fret herself, but jumped out of bed and looked about for her clothes, when lo! they were not to be found. Joe had taken them from the chair on which she had hung them by the kitchen fireplace. She looked for her shoes—a pair of calfskin ones that Parson Meadows had given her when she watched with his sick wife—but Joe had spied them on the hearth, and they, too, were gone. Mary wasn't angry, for she was too grieved with Joe's unkindness to feel angry. When the first shock was over, she congratulated herself that it was her every day clothing Joe had taken; her new calico and her morocco shoes were left. But in this she was mistaken. Joe had made a clean sweep of his wife's scanty wardrobe. And after searching in vain for a suitable covering, Mary was forced to dress herself in a pair of Joe's old pants, and a round-about all in tatters.

"Mary was naturally a cheerful body and had a good deal of humor in her. She was high spirited too, with all her submissiveness to circumstances. Indeed, that is the way spirit shows itself. It don't make matters worse by complaining at what can't be helped, but makes the best of everything. So when she had fairly taken in all the circumstances of her case, and come to the conclusion that as her husband had left her nothing but his pantaloons, it would be no breach of propriety for her to wear them, Mary's humor got the better of her grief and chagrin, and she laughed till tears rolled down her cheeks as she surveyed herself in the broken looking glass. Joe was six feet in hight and stout in person; Mary only five feet four inches and slender, with a fair complexion and a face that when you had looked at it once, you couldn't help looking again. Of course the pants were turned up at the bottom, and the jacket hung dangling round her hips, and her auburn hair hung in waves on her shoulders; for Joe had knocked down her comb from the mantle-piece, in his foray, and broke it in a thousand pieces. Mary looked down at her bare feet and bethinking herself of a pair of old boots in the garret, completed her toilet and stole out—while baby slept—to a neighbor's for aid and comfort.

"If Mary had gone directly to a lawyer, or if the women had known as much about the laws made for 'em as the men do, she wouldn't have got herself arraigned before Esq. Lumpkin for stealing. But she naturally went to her own sex; and as she didn't like to expose herself to men folks, her first call was on Widow Berry. The widow was highly indignant, first with Joe, and then with Jack Ketch; for the conclusion was inevitable that Joe had pawned the clothes to Jack on his liquor score. She advised Mary to get her clothes, if she could find them, without asking anybody's leave. And Mary, in a dress of the widow's, found no difficulty in getting possession of the bundle which was lying under Ketch's counter, he expecting she would bring money to redeem it.

"The fact of the theft was easily proved; for feeling that she had a perfect right to her own clothes, Mary had taken them in the presence of several bar room loungers. Having heard testimony and pleas of counsel, his honor, the judge—after declaring that 'by the law of the State the wife's clothing belonged to the husband, and he had a right to dispose of it'—sentenced Mary Heth to 'pay a fine of 10 dollars or be imprisoned in the county jail 30 days.' The women were so indignant that the judge was glad to escape by a back door. Mary's fine was paid on the spot by a contribution; and Jack Ketch's name became a stench far and near. The men of Pitcherville made it too hot for Joe, and he left the country and broke his neck in a drunken row within a year."

"And good enough for him. But, Auntie, what has this case to do with the bill before the Legislature and Ned Thornton's plea?"

"Why, Kitty, I was thinking what an addition Ned could have made to his eloquent appeal in behalf of 'the majesty of the law' if only this law had been enacted before Mary's trial. Ned was well educated, quick witted and good hearted. He volunteered to defend Mary, knowing that the case would go against her, as the law was plain and the evidence conclusive; and he meant to indulge his humor and thus make the conviction of his client the confusion of the court and the shame of her prosecutor. And the way he spread himself to illustrate the 'majesty of the law' and 'the dignity of the court,' set the whole court-room in a roar of laughter, alternating with cries of 'Shame! Shame!'

"'I am aware, your honor,' said Ned, with a low bow of exaggerated reverence, 'I am aware, your honor, that in the eye of the law my client has been guilty of a great *crime* and the majesty of the law must be vindicated. For what becomes of the right of property if theft is allowed to go unpunished? What security has a man in the enjoyment of his inalienable rights, if in "this freest government on the face of the earth" his wife—the control of whose person legally belongs to him—may set up an individual claim to her petticoats? True, the garments taken from under Ketch's counter were paid for by my client with her own labor, were fitted to her own person, and had been worn only by her. But then has not this Christian, civilized Government—in deference to the common usage of vanishing barbarisms—decreed that all the personal effects and accumulations of the wife, including her clothing, belong to the "community fund" of which her husband is given the absolute disposal during his life? Does it not make him the judge of what is necessary and "reasonable" for her in all things, decreeing that "the husband may choose a place and mode of living and the wife must conform thereto?"

"'Your honor will excuse me for the digression, but I hear gentlemen charging upon my client's husband that selling his wife's clothing was a mean act; that in buying them Ketch also was mean. "No honorable man," says an honorable gentleman by my side, "would be guilty of such treatment of a woman." But gentlemen forget that the sale of my client's "paraphernalia," by her husband, and its purchase by Mr. Ketch, were lawful acts; that these men in the selling and the buying of her personal apparel were only just as mean as the law which protects them in doing it; and that any legal right which honorable men would scorn to exercise, must have been enacted and retained among our statutes by our legislators—honorable men, selected for their wisdom and virtue—for the use of mean men, since "no honorable man would be guilty of such treatment of women."

"'In conclusion, while I appeal to your honor to lend all the dignity of your personal character to sustain the majesty of a law that strips a woman of her own proper apparel and compels her—in defiance of the law that arrests and punishes any woman found in male attire—to array herself in her husband's cast-off garments, let me remind your honor in behalf of my client that you are at liberty to let her off with a fine of ten dollars; and,' continued Ned, 'I may be forgiven for envying your honor the illustrious service of convicting a "helpless, dependent being, unknown to the law in her individual person—except as a criminal—of stealing her own petticoats."'

"Now Kitty, if only this new law had been in force, Mary might have turned round and sued Jack Ketch, and recovered damages covering the value of her clothing, with costs and fine of her conviction. Ned could have used the occasion to expatiate on the consistency of His Majesty the Law in subjecting the rum seller to prosecution for damages, the immediate result of a traffic it authorizes and protects him in pursuing. He could have shown the anomalous character of a law prosecuting the rum seller for taking of the drinking husband what the law gives him the right to dispose of; and to clap the climax, Ned could have shown that in allowing the wife to prosecute in her own name and behalf, legislators had committed the egregious blunder of destroying the unity of Joe and wife in law and in fact, without disturbing him in his right of possession and disposition of her 'paraphernalia.'

"The consistency and majesty of the law, Kitty, are enough to make one laugh outright, were it not that manhood is compromised, womanhood outraged and both degraded in the results."

WHY WOMEN'S TEETH DECAY.—A philosopher asserts that the reason why women's teeth decay sooner than men's is because of the friction of the tongue and the sweetness of the lips.

ONE-HALF of this generation are born to be the wives of the other half and the mothers of the rest.

Farm House Chat.

[Written for the PRESS by MARY MOUNTAIN.]

Everybody with a heart that was once tender and sentimental, will be sure to feel some stirring serio-comic old memories as the year brings round again

St. Valentine's Day.

And a much abused old saint is he, unless his original character has become in some way transmogrified (?) to suit our degenerate age.

Here is Webster's idea of the 14th of February: "A day sacred to St. Valentine, It was a very old notion, alluded to by Shakespeare, that on this day birds begin to couple. Hence, perhaps, arose the custom of sending on this day letters containing professions of love and affection."

Now look you—here is a day already venerable when the world was young and Shakespeare in his prime; a day not only set apart and consecrated by custom for the special service of Cupid, but also dedicated to the genial, spooney, blushing, valiant St. Valentine, who is supposed to inspire lovers with any amount of sentiment, softness and sonnets; with rhymes of rosy rapture, of roguish audacity or timid formality, all trimmed with sweet little doves, hearts strung on arrows, true love knots and hands that clasp forever.

Yet, since a time when the memory of man runneth not to the contrary, hath not this sacred day been profaned, snubbed, led by the nose into all sorts of "highly illustrated" pranks and outrageous insinuations? Have not bachelor sensibilities been cut to the quick, and maidenly reserve untimely shocked by pictorial allusions to "crows' feet" and the onward march of ages?

Have not landladies been tormented with stale ballads smelling of codfish, and servant girls enraged with dauby pictures of frowsy Bridgets? Have not lawyers glared wrathily at portraits of a leering Diabolus, presenting hoofs and horns instead of briefs and bank notes? Doctors, too, have opened the most innocent looking envelopes to find but a dismal death's head, or some other ghastly allusion to the business in hand. Ambitious authors, hopeful artists, genteel milliners, honest merchants, industrious printers, modest editors—in fact, everybody and his wife have very likely at some time been caught staring feebly at the horrible caricatures called "comic valentines."

Are They Comic?

Doubtless they seemed so at the time they were invented, but their "salt has lost its savor," and why can't we have something entirely new and adapted to the humorous sense of the age we live in? I wish everybody and his wife would hit upon some plan to drag the suffering old saint from this slough of vulgarity into which he has fallen, overpowered by such weight of associations as never before destroyed the fair fame of saint or sinner. It seems incredible that in this day of progress and refinement there should be anywhere tolerated such a mess of outlandish, stale old rubbish as is hawked over the world every year in the name of St. Valentine.

The true modern valentine is a dainty affair—sometimes carrying a gift of real value, in addition to the usual amount of sentiment.

There is great chance for fun at a valentine party, arranged, of course, with postoffice and other attractions. I have had the pleasure of assisting at two of these in a community where bachelors were "over plenty" and girls like "angels' visits;" so our pens had to fly, that each lone heart might be cheered by at least one genuine pen and ink effusion written for "himself alone," and supposed to be worth in hard cash about two bits.

The effect then and there was often amusing; but from one of mine I heard most agreeably, in less than a year from the time it was written. Calling upon a newly arrived bride, the proud husband introduced me to her with unusual emphasis, and then said to me, "Do you remember the valentine you sent me? That brought me to time, and I am greatly obliged to you and old St. Val for helping a fellow to make up his mind."

Perhaps it might at second hand happily influence some other lingering lover; so here it is, and Tom, Dick and Harry are equally welcome to consider it a personal or practical hint.

My Friend's Valentine.

Do you notice, friend George, how the years go by,
And the bright days of youth so silently fly
Away to the shades of the dark, dead past,
Where all hopes and ambitions are buried at last?

Do you choose, friend George, O, solus and single,
That no other's joys with your own shall mingle?
Do you choose, friend George, a bachelor's life?
No snug little home? No kind little wife?

Do you wait, friend George, till you make your pile—
A golden pile, that may win the smile
Of some selfish beauty, whose charms may be bought
With the gold for which you so patiently wrought?

I have heard, friend George, of many a man
Who toiled through life upon such a plan;
And when growing gray—"Alas," said they,
"We have thrown the best years of life away!"

So listen, friend George, to this bit of advice;
If you find a sweet girl—irresistibly "nice,"
And toward whom your heart makes a rapid "incline,"
Go choose her at once for your Valentine.

* * * * * *

Again our hills are wrapped in driving storm, and the clerk of the weather is busy with his rain gauge. Already our record shows a little more than 45 inches, total for the season.

These inches are items of great interest, as we are upon our mettle this winter to catch all the rain that falls; but I am not happy about this storm, ss it is likely to delay my Valentine, and so disappoint "Tom, Dick and Harry." "Concerning Hogs," in the last RURAL, is not only well worth reading, but it sets me to thinking. Have often noticed that peopls most fussy in matters of diet will eat chickens and fish without a pang, and I could not help wondering if they had ever watched the habits of those "fowls." I have seen hogs, some well kept and tidily fed, othsrs neglected; but among them all, never a porker more filthy in its scavenger business than is the chicken. And then the fish, what horrible cannibals are they! Eating each other, and the Lord knows what. One can hardly ride a hobby against poor Piggy without scaring up facts and fancies about other birds and beasts until one is fain to say "where ignorance is bliss 'twere folly to be wise."

The Goose Bone.

The prssent winter has been a puzzler to all the weather prophets; even Tice got lost in its nncertainties and old Probs has not, in every instance, foretold the daily changes. Alone of all the weather prognosticators, the goose bone has bit the mark, and in view of this fact, swelling with young American enthusiasm, we propose three cheers for the goose bone. What the goose bone is and the manner of its use is told by the *National Granger*, as follows:

The goose hone predictions are perhaps more closely watched in Kentncky than anywhere else, and it may be called the Kentucky weather prophet. In many parts of the State the farmers consnlt it and prepare for handling their crops in accordance with its predictions. It is said that there is a family in Woodford county that have fifty of these little prophets carefully laid away, and declare that not one of them made a mistake in their predictions. Let us turn to this year's prophecy. We must take the breast-bone of a last spring's goose, none other will do, for the prophecy does not extend beyond the year in which the goose is hatched. Thanks to a friend, we have such a bone. It must be divided into three different parts, whioh represent the three divisions of winter. The breast-bone of a goose is translucent, but at places has cloud-like blots upon it. These blots denote cold weather. Looking at the bone before us, we find a little cold weather about the first of December, which we have realized, and there is another blot beyond the center of the bone, denoting cold weather abont the middle of January; this clond we are passing now, and so far our little prognosticator has guided us right. We are to have warmer weather after a few days, bnt the worst is to come. The darkest hlots are near the end of the bone and if the prophecy fails not, winter will verify the saying ot coming in like a lamb and going out like a roaring lion. Our coldest weather will come after the middle of Febuary, and our warmest fires will be required for the parting days of winter and the first days of spring.

This is a goose bone prophccy, and as we have the word of a good old farmer that it has not failed for fifty years, we wonld advise the laying in of a good supply of coal, and general preparations to meet cold weather—for the goose bone has said it, and old Winter will be after young Spring with a great big iciole.

A BLIND MAN'S WISH.—Wm. L. Dupuy, an old gentleman, who will be remembered by our citizens as a vender of copper pens and other notions about our streets, died at the residence of his brother-in-law, W. H. Cord, in Flemingsburg, a few days since. He was a brother of the celebrated novelist, Miss Eliza A. Dupuy. During his last visit here we asked: "Uncle Billy, if your sight could be restored just for a minute, what object would you most wish to see?" "Well," replied the old gentleman, "I wonld wish to see a woman's face, for they all have a kind word for, and I know from the tone of their voices that they sympathize with me in my affliction. And," continned the old gentleman, "When I have a little child upon my knee, stroking its head, listening to its innocent prattle and reflect 'that of snch is the kingdom of heaven,' I wish, above all things, that I could see their pure, innocent faces as I listen to their sweet voices." Let us hope that in the realms of the great hereafter his eyes have opened to gaze npon fairer forms, and that his ears are greeted with sweeter mnsic than ever salnted them here below.—*Kentuckian.*

A HORSELESS WORLD.—A Western paper amuses itself in this way: What a queer world it would be! No dray horse or cart horse in the streets; no race horse sweeping over the track; no cavalry horse on the battle-field; no lady's palfrey proudly prancing: no mustang on the plains; no Shetland pony; no Canadian sleigh horse; no canal-boat horse nor artillery horse; no stallion in Kentncky; no horse for Sheridan to ride, or Grant to drive or Mazeppa to fly with. A horseless world wonldn't be the world to which we have been accustomed. We should miss the kindly face of the animal which has been called the "friend of man;" which has served him so faithfully; which has performed the hardest work for him; which has helped him to fight his battles; which has done so much to render life enjoyable, and which has been so cruelly treated by the hard-hearted.

NATURE has supplied remedies for great evils—has balanced genius with adversity, ambition with perils, virtue with calnmny.

Young Folks' Column.

The Indian—His Peculiarities.

[Written for the "Young Folks' Column" by CORNUS CANOPUS.]

Of all races or tribes that delight the average boy most, the Indian perhaps stands unequaled. Viewed as he is in the light of a free roving "Red Man," with plenty surrounding him and bedecked in grotesque and bounteonsly colored attire, his plumes of diversely hued feathers on his head, a strong bow in his hand, a quiver fnll of arrows on his shonlder, and mounted on a swift steed, he is apt to create a very favorable and intensely admirable impression upon the mind of a boy. Bnt for the most part these representations of the Indian, if not entirely fabricated, are greatly exaggerated. View him as he exists now on our government reservations, and you will observe the difference between the statements and the facts.

It mnst be conceded, however, that in former times—before the manners of the American Indians were corrupted hy intermingling with white people—this was different. While he now is lazy, stupid, cowardly and repulsively sqnalid, he formerly was brave, active, cunning and remarkably proud of his personal appearance.

Mnch injustice is done to the Indian by representing him in the light of a semi-fiend, a wanton murderer, which impression of him is the cause, probably, of the many Indian stories which are now circulated among our youth. If he possesses a hate for and a warlike and revengefnl spirit against the white people, it is because of their having maltreated him, and not, as is generally supposed, the result of a hereditary thirst for blood or a natnral dislike for the white people. So long as they did not molest him, the Indian respected the white men, but so soon as he was maltreated his revengefnl inclinations asserted themselves, and he became an enemy to all foreigners. This is substantiated by the experience among them of Colnmbus, who found them very friendly and liberal when he first landed on one of the Bahama islands, in 1492, bnt some years later, on his fourth voyage, after the Spaniards had come and with their then natural thieving propensities robbed the natives of their gold and provisions, and thus roused their dormant spirit of revenge, on the coast of Jamaica, where he had been wrecked, he found that the Indians were not only unfriendly, hut also disposed to let him starve, and even threatened to murder him and his party outright, any one of which fates he averted only by foreshadowing a coming eclipse of the moon, and attaching a heavenly significance thereto. The experiences of the later explorers, Vespucci, Balboa, Magellan, Cortez, Cartier and DeSoto, only go to more firmly establish the conclnsions arrived at from this single instance.

Fernando Cortez, a brave but very crnel Spaniard, with a small army of 600 men, who treated the native Mexican tribes so shamefully, shooting them down mercilessly before him, merely for the sake of obtaining the riches which the country was reputed to possess, was perhaps most instrumental in enraging the Indians against the white people. With DeSoto, the discoverer of the Mississippi, it was the same. Vexed at not finding the gold which they sought, his men gave vent to their anger hy plundering and burning the villages of the natives, who in turn, hy killing his cattle, etc., greatly hindered the success of his expedition. And so might be repeated the adventures of many other explorers, all going to show that the so-called murderons spirit of the Indian is the result of long continued abuse and maltreatment.

Like all other races, not excepting onr own, the Indian has his natnral peculiarities. For a long time the Indian has been accredited with remarkable powers of endurance, an unusually acnte eyesight and a wonderfnl hearing faculty. The stories of his power to endure fatigue for a long time continuonsly are well known to us, and wonderfnl and remarkable as they may seem, are yet none the less crednlous. When sitting, he squats; when standing, his feet are nearly always apart, generally one before the other; when walking, he places one foot directly in front of the other, and when running, his toes only touch the ground.

The Indian is eminently known for his cunning, a quality which perhaps is a quired by long and constant training for the chase. But his wit is not confined to the hunt, for it has been ascertained that he is in many ways very acute of perception and quick of discerning. Thus we may take as an example an extract from "Thatcher's Lives of the Indians," which reads substantially as follows:

"An Indian hnnter belonging to one of the tribes of the Pacific coast, one day, on returning to his hut from a somewhat protracted absence, fonnd that his venison, which he had hung up to dry, had disappeared. Having taken a careful survey of the spot, he set off in pursuit of the thief by following his footprints. Having in this way traced him a long way throngh the woods, he met some persons of whom he enqnired whether they had seen a little, old white man, carrying a short gun and accompanied by a little dog, with a short tail. On replying in the affirmative and the Indian having told the party that the man so described had stolen his venison, they asked him how it came that he could give such a minute description of a person whom he had never seen. To this the Indian replied: That the thief is a littls man I know by his having made a pile of stones to stand npon in order to reach ths venison from the hight I hung it, standing on the ground. That he is an old man I know by his short steps, which I have traced through the woods; that he is a white man I know by his turning out his shoes when he walks; that his gun is short I saw from the mark of the muzzle on the tree against which it leaned; that his dog is little I know by his tracks, and that he has a short tail I saw by the mark it made in the dust. Let us hope that he captured the thief."

The name *Indian*, as applied to our American tribes, is a misnomer, given by Columbus to the natives of the Bahama islands, when believing that he had landed in the East Indies. The name has since remained as the one designating our native Indians.

Good Health.

Childhood's Infectious Diseases.

The *Lancet* calls attention to the importance, in the present state of the public health, of securing the early detection of cases of scarlet fever. It is of consequence not only to the patient bnt also to the community, in order that timely measures may be taken for preventing ths spread of the disease. The *Lancet* says that the throat symptoms are the most trustworthy for the purpose of diagnosis in the initial stage of scarlet fever. The soft part of the palate is extensively reddened, and not merely the tonsils, as is the case in the first instance in ordinary sore throat. When this condition is met with, accompanied by a very hot skin and a very quick pulse, accompanied or preceded by sickness, with a thickly furred tongue, red borders, and prominent papillæ, a case of scarlet fever may be prepared for. In most cases, adds the *Lancet*, sickness oocnrs within 24 hours after the commencement of the attack, and in a large proportion of the cases it occurs within 21 or 18 hours.

The *Lancet* addresses itself to the medical men, but there are so many parents who have a wholesome fear of calling in the doctor to their families if they can avoid it, that it is well for the signs to be widely known during the present prevalence of scarlet fever, hy which they may ascertain that they will have finally to resort to him. Seeing, too, the number of the children of the poorer classes now daily gathered together in schools, it would be a wise precaution for the authorities to issue to schoolmasters and schoolmistresses some plain directions for the detection of this and other infectious maladies common to childhood, hy which, in the event of complaints of illness on the part of any of their pupils, they might become aware of suspicious cases and take their measures accordingly. In the absence of such or a similar safeguard, schools in crowded districts may play no small part in assisting the progress of the epidemics of the future.

SURGICAL TREATMENT FOR CONSUMPTION.—Professor Mosler, of Germany, is now successfully treating pulmonary consumption, by making an incision throngh the wall of the chest and drawing off the pus with the syringe, and afterwards washing out the ulcers with weak carbolic acid. No difficulty appears to have been experienced in the operation, and the condition of the patient was improved, the cough becoming less troublesome, and the febrile symptoms apparently moderated. One point, at least, is regarded as settled—and it is certainly one of great importance—so far as could be by a few experiments of this character, namely, that the local treatment of pulmonary cavities is undonbtedly practicable, and that the lung is really more tolerant of external interference than has been generally believed. The uses of carbolic acid are rapidly extending, and it bids fair to become one of the most valnable articles of the materia medica. It appears to be speedy death to diseased germs and fungus growth.

FUNGI IN DISEASE.—At a recent meeting of the Newark, N. J., Scientific Association, the President, Dr. Edwards, called the attention of the members to the connection of microscopio fungi with disease in animals and plants. In the discussion on the connection of fungi with diphtheria it was asserted that the parasitio fungus is always present in the diphtheritic membrane. Whether this was a cause or a simple accompaniment of the disease was undecided. Dr. Edwards stated that whatever would destroy the fungus would cure the disease, and that he had secured very satisfactory results by the use of salicylic acid.

ANOTHER REMEDY FOR NEURALGIA.—A Frenchman has discovered that a stream of water directed from a force-pump against a spot visited by neuralgia will relieve it. The operation is painful, but patients "call for a repetition on a return of the disease."

GREEN LAMP SHADES.—At Bonn, Germany, headaches, dyspepsia, etc., affecting several patients, have been traced to evening studiss pursued under the baleful influence of a green lamp shade, from which arsenic was set free by the heat of the flame.

Domestic Economy.

The Omelet.

How to Make a Good One.

We think our readers will sincerely thank us for the precise mode of preparing this delicious luxnry, for the mind that invented the omelet was capable of greater things. Many persons think they have made and eaten omelets when they have not. Anything that is made of eggs stirred np and solidified over the fire is supposed to he an omelet, bnt it is not. I have heard of people who put flour in it. Flour takes 15 or 20 minutes to cook, and an omelet is made in one minute; and raw flour is not wholesome or appetizing.

The true omelet is a pile of terror-stricken eggs and milk; it trembles with every jar, and crouches in a delicious quivering mass npon the plate; he who puts a silver knife into it will find a porous, flaky material, almost impalpable to the touch, that will melt as quickly as a snowflake in his mouth. Upon reflection, he will be willing to admit that hens were not made in vain.

Proceed in this way if yon wish to make an omelet: Have some fresh eggs, not omelet eggs. All eggs that will not by any possibility do to boil, are put away in restaurants to make omelet with. Break them into a china bowl. If they are fresh, the white will be as clear as a maiden's eye, and the yolk as ronnd as the pupil of it. Add a tablespoonfnl of milk for every egg, and whip the whole as thoronghly as you would for sponge cakes. The omelet pan has previously been put on the fire and made so hot that butter will melt and almost brown in it, but not quite. When in this condition you are to turn the whipped egg and milk into the pan and pnt it directly over the fire. Get a thin-bladed knife and run it carefnlly nnder the bottom of the egg, so as to let that which is not cooked get below. If the fire is right the whole mass will swell and puff and cook in a minute; if it is not carefully attended to it will burn on the bottom, and burned egg is most offensive in smell and taste. It is not necessary to wait until the whole mass is solid, as its own heat will cook it after it has left the pan; bnt begin at one side and carefnlly roll the edge over and over until it is all rolled up, and then let it stand for a moment to brown, and turn it out on a hot plate and serve it, or, what is better, eat it yonrself—immediately.

You must not pnt one grain of salt in it while cooking, or all your hopes and your omelet will flatten down together. If it is properly made it will be like a summer sunset, rich with crimson and yellow hues, and the savor will gladden the heart.

The common mistake in making omelets is to merely *stir* the eggs with a fork; to put no milk in it; to put salt, flour and bread crumbs in; to cook them too slow, and to turn them out on cold plates, a clammy, skinny waste of eggs. Thus made, they are as unwholesome to eat as they are repulsive in appearance.

If any one has a fancy for mixing finely minced ham with the egg hatter, they will have a ham omelet; or for surrounding it with stewed kidneys and smearing a little of the sance thereof about the egg after it is cooked, they will have a kidney omelet, or by pouring rum over it and setting the same on fire, they will have an "omelet au rhum"; or by sprinkling granulated sugar over it it will be an "omelet sucre"; but all these are simply inventions of the enemy to see how vilely they can ill-treat a good thing, and yet not utterly rnin it.

YELLOW PORK.—Pork sometimes presents a yellow appearance when it oomes from the slaughterer's. Such appearance is due to a derangement of the liver—to a deposit of vitiated bile. It is analagous to what often occurs in the human family, and is one of those cases where slaughtering saves the life of the animal, as it would soon have died of the jaundice if it had been let alone. To use such meat as food may possibly do nobody any hnrt, bnt it is better suited to be used for soap grease.

THE cause of streaked butter is the imperfect working of the hutter after it is salted. Salt in butter sets the color, or deepens and brightens it; so that if the salt is worked into the butter and not so fnlly worked as to salt every part, then tho fresh hutter retains the color it had when it came from the churn, and the salt butter grows so much darker that it is decidedly streaked. The romedy is to work the streaked butter more thoronghly.

BARLEY BROTH.—Take a breakfast-cupful of pearl barley, boil it in a gallon of water gently for thirty minutes, then take three ponnds of meat—lamb or mutton chops, with the fat cut off, or lean beef—put them into a separate stew-pan, dress them with a small quantity of water, add to them any kind of vegetables—carrots and turnips, with small onions, celery, and green peas, if in season—salt, peppor, and, with the water and the barley let the whole boil gently for two hours or longer, and serve it up all together.

PEA SOUP.—After well washing one quart of split peas soak them for the night, and boil them with a little carbonate of soda in just snfficient water to allow to break to a mash. Then put them to three or four qnarts of beef broth and stew for one hour; then pass the whole throngh a sieve and heat again. Season with salt and pepper.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$6.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, February 19, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Implements and Hardware; Hints for Winter Work, 113. Selection in Seeds; The Father of His Country; Notes of Progress; Sharon-Shoddy, 120. Death of Dr. T. M. Logan; Valuable Improvement in Pumps, 121.

ILLUSTRATIONS.—Building Occupied by Frank Bros. & Co., and Jas. E. Gordon, 113. Tree Setter, 115. Four Cylinder Continuous Acting Pump; Three Cylinder Pump, 121.

CORRESPONDENCE.—More About Straw Burning Engines; A Free Opinion on Parks' Dam; "Concerning Hogs," Etc; Summer Fallowing; Practical Progress in Irrigation; Prospects in Solano, 114.

THE VINEYARD.—Some New Grapes, 114.

THE DAIRY.—How to Make Cheese at Home, 115.

HORTICULTURE.—Cherry Culture—No. 2; Growing Cranberries; A Fruit Tree Ladder, 115.

STOCK BREEDERS.—Dairy Stock, 115-122.

PATRONS OF HUSBANDRY.—Grange Song Books Again; Destruction of Gophers; Old People in the Grange; Pacheco Grange; Washington Matters at Washington; A Good Lesson; Co-operative Associations; A Double Commission; Lady Officers; Fruit Growers' Association of Florin; Grange Centennial Encampment; Sovereigns of Industry; Grange Work for the Ladies; Emigrant Aid Associations, 116. From the Granges; Election of Officers; The Grange in Canada; The Rural Press as a Practical Worker; Indiana State Agency, 117.

AGRICULTURAL NOTES from various counties in California, 117-124.

HOME CIRCLE.—By and By (Poetry); Mary Heth and the Law; Farm House Chat; The Goose Bone; A Blind Man's Wish; A Horseless World, 118-119.

YOUNG FOLKS' COLUMN.—The Indian—His Peculiarities, 119.

GOOD HEALTH.—Childhood's Infectious Diseases; Surgical Treatment for Consumption; Fungi in Disease; Another Remedy for Neuralgia; Green Lamp Shades, 119.

DOMESTIC ECONOMY.—The Omelet; Yellow Pork; Barley Broth; Pea Soup, 119.

SHEEP AND WOOL.—Weight of Fleeces; California Wool; The Correct Way to Handle Sheep, 122.

USEFUL INFORMATION.—Boiled Oil; An Ancient Woolen Factory; Pedestrian Training; Facts Worth Remembering; How the Inner Surface of Glass Reflects Light; Purifying Water with Alum; How White Shirt Buttons are Made; Air and Sunlight, 122.

THE HORSE.—Management of Express Horses; To Know the Age of a Horse, 126.

MISCELLANEOUS.—Electric Whistle; A Pavement Animalcule; How Electricity Splits Trees; New Mode of Hardening Sandstone; Is Il the Roc? 122.

NEW ADVERTISEMENTS.

Mutual Benefit Life Insurance Co., James Munsell, Agent, S. F.; Bay Nursery, James Hutchison, Oakland, Cal.; Blue Gum Trees, W. A. T. Stratton, Petaluma, Cal.

The Week.

Fuller details of the storm which was mentioned in our last issue show it to have been one of the most severe which has occurred during the memory of many. There was a vast amount of suffering among the unprotected farm stock and considerable loss to the owners. We print this week a table showing the season's rainfall thus far at various points. The locations are so widely diverse that one can gain from the tabular statement a good idea of the generous downfall of water which will insure us a prosperous year in the fields. There has been almost a cessation of farm work, and there will be busy days soon to make good the time spent in waiting.

AT OUR EXPENSE.—Subscribers who will send in the cash at once for the renewal of their subscriptions may do so at our expense, either by registered letter or receipted package by express. Don't wait to be called upon. We at present very much need the coin to carry out our good endeavors.

Selection in Seeds.

There is scarce a matter of more importance to the agriculturist than the choice of seeds. In the seed is concentrated the strength and life of the plant. In it lie all the possibilities of reproduction, and if the soil and cultivation be favorable its future course is sure. It is trite to say that the farmer should sow none but the very best seed he can obtain, and it is a matter of the plainest sense that seeds grown under the same conditions of climate as those in which he wishes to mature his crop will give him most satisfactory results. It is true also that in some farm crops very much depends upon the introduction of fresh seed, bulbs or tubers where the tendency seems toward degeneration. All these points should receive the farmer's most careful consideration and observation.

We wish at this time to speak more particularly of the results which can be obtained by a careful selection of seed. It can be likened to the judicious selection of the choicest in the breeding of animals. The principle is the selection of the best, with the surety that, under favorable conditions, each reproduction will surpass each former standard because of the inherent tendency toward development and improvement which is fostered and promoted. And in speaking of this point in the selection of seed, we base remarks directly upon the results of careful practice and experiment.

Gustav Marek, a German experimenter, has lately published the results of his field experiments with large and small beans and peas, selected to show the difference in their growth and yield. He planted a row of small and a row of large beans, side by side, and watched their progress carefully. Following through his notes we find that when the plants from large seed were six to eight inches high, the plants from small seed were but three to six; when all the plants were in blossom, the large seed plants were 24 inches high, the small 20 inches; the large averaged 13 leaves to a plant, the small 11; the large formed 3,138 pods, the small 2,709 pods; the large yielded 161 ounces of first quality seed, the small 121 ounces. It will, of course, be understood that the beans were all of the same variety, the treatment being the separation of the large from the small and planting each by itself. The result was a gain in crop of 33 per cent. by growing the selected seed.

In the experiment with large and small pea seed, the course of growth was similar throughout, and the result was 48½ ounces of good seed from the large plants, contrasted with 19 ounces from the small—a gain in crop of 157 per cent.

This is not an advantage difficult to obtain, but it is important, as these results show. By carefully selecting the largest and best every time for seed, the gardener can advance his crop in a most profitable proportion, and by employing this power in his seed as well as by bestowing all diligence upon the quality and condition of his soil, he can make his desires the measure of his results. We are aware that many of our best gardeners avail themselves of this power of seed and profit by it, but the vegetables which come upon the markets show that many are ignorant of it, or neglect to practice what they know.

The advantage of selecting the best and strongest seeds in grains is as marked as in legumes. At a recent meeting of an English farmers' club, one gentleman present showed heads of wheat, of the year 1870, containing 11 rows on a side; those of 1871 with 12 rows; those of 1873 containing 14 rows; and those of 1874 with 15 rows; 16 rows had been reached, and the exhibitor said: "On my poor clay this extra grain produced six quarters and seven quarters per acre," or from 48 to 56 bushels. There was also shown a sample which had been kept in a bag since last August; 105 heads growing on one root, on which more than 8,000 grains were growing at once.

Whether, in our magnificent style of grain growing, the farmer can be induced to put his seed through a course of winnowing to separate the full, plump kernels, is doubtful; but the fact still remains that in the large seed exists the power and the strength for production and for improvement. If it be not practicable to treat the large amounts of seed which our great grain growers use at a single sowing, there is a way in which a grand material for future seeding can be secured. It would be by growing the seed stock in a place by itself, carefully preparing the first year's seeding and putting in nothing but the best kernels, and harvesting this lot carefully for the next year's seed. Even this would insure a marked improvement in the quality of the whole succeeding harvest. The way, however, is to select the best for several years, thus establishing for one's self what is called a pedigree grain, by constantly reproducing the best and eliminating the weakly stock. This is the way in which the intelligence of man can avail itself of the natural law of the production of like from like, adding to it the surety that the tendency of the present best is to still further improve under favorable conditions.

FOR THE CENTENNIAL.—The bill for an appropriation by the General Government for the Centennial exhibition has passed both houses of Congress, and now awaits the signature of the President.

The Father of His Country.

Before another issue of the PRESS lies before the reader the Centennial year's anniversary of Washington's birth will have been celebrated with a spirit beyond that which the 22d of February has elicited during recent years. It is only natural that the Centennial year should awaken in us renewed appreciation of all the events which in any way contributed to the results we celebrate.

It is fitting that the birthday of Washington should be greeted this year with genuine thanksgiving. We care not whether the patriotic impulse express itself in poem or oration; in noise of the salute or the harmony of anthems; in the measured pomp of the parade or the graceful variety of social reunion—each and all of these, if the spirit be right, may recall the debt of gratitude the nation owes to the father of his country.

History has formed its sober judgment of the character of Washington, and its calm features can but illy conceal an expression of enthusiasm at the contemplation of his glorious deeds gloriously achieved. Oratory has crowned its roundest periods with his high sounding name. Patriotism has kindled in a world of hearts and nations have gained new life and liberties with the watchword taught the world by Washington. It would be idle to recite the glories of his life. The world knows them. Every language of civilization speaks his praise. Every generation of men will early learn his beneficent accomplishments, so long as eloquent words are expressive of noble thoughts.

But there are a few avenues through which it may be of vital value to-day to draw light from a memory of Washington. It matters not though the light dazzle eyes which have grown accustomed to the darkness begotten of the events of recent years. It may expand the contracted pupil with which the national eye has learned to look upon truth, virtue and disinterested patriotism to let a bright, sharp flash of early nobility and manhood pierce it. It may awaken the sluggish national conscience, seared by a blast of revelation of every grade of evil doing, in public and in private station, to contemplate a life of disinterested goodness, of purity and of truth.

It is difficult to go back to the time of Washington. Let us bring Washington to our own. What do we see? Shall we call him Washington-Tweed, plundering a metropolis and buying legislators hand and soul? Shall we call him Credit Mobilier Washington, converting a national enterprise into a scheme for robbery? Shall we call him the Washington of Rings, encircling a nation and leading those nearest to the chief-magistrate into deeds meriting criminal indictments? Or shall we call him the Washington of Corporations and Monopolies, paralyzing the industries of the country by despotic exactions and making the springs of wealth and prosperity tributary to powers ostensibly arranged to be their servants? Shall we call our politicians by the name of Washington? Washington buying a majority of a legislature that he may be a Senator! Washington enchaining the conscience of the civil service of the nation with the alternate of support or surrender! Shall we call our spiritual and moral leaders Washington, when the highest of them cannot clear his skirts, even with all the appliances of modern justice? Shall we call our private citizens Washingtons, when the air is filled with the reports of embezzlements, defalcations and crimes?

It is not a pleasant contrast which is afforded by holding the honored name close to the plentiful instances of present dishonor. But it is well to make the contrast, nevertheless. As we approach the thickest darkness the light the brighter shines. Perhaps we could not honor our hero better than to uots that thus, after a century's existence of the nation he founded, his name shines so like a star upon the night of our ill doing. But a star is a double symbol. It recalls the light which has departed and it heralds the light which is approaching. Thus let the memory of Washington be our star on this Centennial year. Let it usher in the day which shall rival the light which attended his uprising. As by his arm and councils he freed a nation from the power of kingly oppression, so now let his memory lead us through this era of official corruption and social demoralization. Thus will his deeds live after him. Thus will arise a generation fitter to maintain his fame and speak his praises.

The Rainfall.

As we have just passed through a time of liberal and general drenching, we compile from our interior exchanges a schedule of the total rainfall for the season to February 12th, at the points mentioned.

Colusa, Colusa county	12.86 inches.
Grass Valley, Nevada county	45.43 "
Petaluma, Sonoma county	18.16 "
San Rafael, Marin county	30.30 "
Sonora, Tuolumne county	40.00 "
Vallejo, Solano county	12.43 "
Oakland, Alameda county	21.93 "
Livermore, Alameda county	14.58 "
Napa, Napa county	18.43 "
Martinez, Contra Costa county	14.64 "
Shasta, Shasta county	60.96 "
Lakeport, Lake county	22.50 "
Los Angeles, Los Angeles county	21.88 "
San Luis Obispo, San Luis Obispo county	20.52 "
Weaverville, Trinity county	35.54* "
Nevada City, Nevada county	43.51† "
San Francisco, San Francisco county	22.79 "
Stockton, San Joaquin county	13.96 "

*And 67 inches of snow. †Up to Feb. 9th.

Sharon-Shoddy.

A highly picturesque banquet was given in one of the corner suits on the first floor of the Palace hotel last evening. It was a feast in many respects which challenges description. The dinner, as it was modestly designated on the bills of fare, was given to the Hon. William Sharon, a United States Senator from the State of Nevada.

Each gentleman seated around the festive board, found, near his napkin, a bill of fare engraved upon a heavy plate of solid silver, dug from the Comstock lode and highly polished. These were gotten up in artistic style at a cost of over forty dollars each, measured about six and one-fourth by four and one-fourth inches, of a quarter of a dollar's thickness. An elegant border was engraved on each side of the plate.—*S. F. Call, Feb. 9th.*

How like a fresh breeze from Babylon rises the savor from this senatorial banquet. So like Babylon and yet so unlike it. Why, the feast of Belshazzar was merely a picked-up lunch in comparison. Belshazzar had metal on his table, it is true, but it was a matter of mere pots and jars, supporting the slippery sardine or harboring the heavy head-cheese. He had no "bills of fare of solid silver costing over forty dollars each."

Belshazzar got himself into trouble with his swell feast. He plundered the house of the Lord and spread his shoddy banquet with treasure which was designed for holy uses. Of course such baseness shuts him from all contest with the later feast. For now wealth carries no longer an obligation to humanity. There are no poor who suffer; there are no enterprises which are needed for the development of the country. A man to be great to-day need not sell all that he hath and give to the poor; he has merely to get all he can and buy the poor. It is a much simpler process—more direct; more economical. It is not casting bread on the waters to have it drift back again when the tide turns. It is putting money where it will do most good; it is financial sharp-shooting, and it is just as sure to make a man great as the fact that one more than half a number constitutes a majority. And then when greatness is achieved, it only remains to establish a social standing. This, too, is simple—"the bills of fare were of solid silver and cost forty dollars each."

Senator Sharon will soon be in his seat in Washington. There will come the day when the roll of the States will be called and measures for the good of the people will be shown red upon the desk. Then the Senator from Nevada will also introduce a bill—a bill to define the social rank of citizens—a bill "of fare of solid silver costing forty dollars."

Notes of Progress.

We are not content, nor shall we be, with any issue of the PRESS unless it seems to surpass in some point of value or interest the issues which preceded it. Our course is onward always. From the kind words which have come to us during the week we select the following, to show that our disposition is perceived:

J. G. L. writes from Sierra valley: "Let me particularly commend the late numbers of the RURAL PRESS. Better reading for the class you intend to reach cannot be found elsewhere."

M. J. L. writes from Santa Cruz: "The RURAL is brighter than ever, and we are truly proud of it—bless you all."

"Constant Reader" assures us that "a marked improvement is noticeable in the RURAL PRESS since the beginning of the year."

GET THE BEST.—From all we can learn there is no better life insurance company doing business hers than the MUTUAL BENEFIT INSURANCE Co., of Newark, New Jersey. Its assets are over $31,000,000. It is represented on this coast by Mr. James Munsell, Jr., whose office adjoins our own, at No. 224 Sansome street, San Francisco. Some of the best business men on this coast are carrying policies taken out for large amounts through Mr. Munsell, who has been the gentlemanly and active agent of the company for some years. We would call the attention of readers to the new feature of accelerative endowment policies issued by this company only, as mentioned in their advertisement on another page, and fully explained in their circulars, which will be sent free on application. Under the "Accelerative Endowment Plan," recently originated by the Mutual Benefit Co., the date of payment (*maturity,*) of all kinds of policies is considerably hastened ("accelerated,") by the surrender of the dividends to the company from year to year, and *ordinary* life policies *mature*, and the amount of the insurance paid to the member during his lifetime. The only insurance journal on this coast, the *Pacific Coast Review*, speaks of this company as follows:

"For faithful and economical management, the Mutual Benefit Life Insurance company, of Newark, N. J., has a record equal to any company in America. Its dividends paid to gross premiums received, have been larger than those of any other company for the past ten years, and its average ratio of expense of management to income, since its organization, only amounts to eight and 76-100 per cent. It is purely mutual, dividing up the surplus annually with the policy-holders. It is a sound and reliable organization, under judicious management, and entitled to the full confidence and liberal patronage of the public."

ON FILE.—"Botanical Excursions," J. G. L.; "Botanical Wonders of the World," M. S.; "Cherry Culture," San Jose; "Gleanings from Astronomy," G. D W.; "Watsonville Grange," M. E. T.; "Windsor Grange," E. L. L.; "A Memory," E. A. A.; "Letters to Boys and Girls," ——; "Bodega Grange," E. H. C.; "Wheat Growing Statistics," L. T.; "The Mission of the Press," J. T.; "Notes on Pruning, etc." H. G.

Storm Notes.

In Lake County.

E. C. P. writes from Upper Lake, Lake county, February 9th, as follows: "For the last two days we have had the most terrific storm we have ever seen in this county. The rain came down in literal torrents, and the wind—oh! Snnday night it commenced raining and *poured*. Tule lake and Clear lake backed up on the farms *almost* as badly as when the water company's dam was in, but this morning it has run down so that we can see the land in spots and places. The land will he wet enough this year not to need irrigation. It seems as if our Centennial year was coming in like a lion; may it last and go out like a lamb."

Sacramento County.

G. R. writes from Florin, Sacramento county, Feb. 12th: "The second storm of heavy wind and rain has passed. Now the third one is brewing, giving the husbandman but little chance to catch up his work. Spring will come heavily burdened with increased work, and a short time to mature it. What little work has been done of late is hy pruning the vineyards and orchards, and repairing work on farm. The idea of pruning early or late is not much heeded, for many have experienced it both ways, and do not see but the frost has the same effect either way. The ground is perfectly saturated. No more eeeding this season. Grain grows slow. Summer fallow sown when dry has got well rooted and looks good; the only way to sow it. Planting tropical fruit is on the increase. Fruit of general varieties will he set out when season permits."

Mendocino County.

W. D. White writes from Ukiah, Feb. 9th: "We are now having a terrible storm. Russian river is over its banks and it is still raining. A large amount of our bottom land is not yet seeded. Hop prnning will be late this season because the ground is not in order. '

Death of Dr. Logan.—When the month of January closed we wondered why we did not receive our enstomary advice of the rainfall in Sacramento from our esteemed contributor, Dr. Thomas M. Logan. We were not long in donbt, for tidings came of the death of the gentleman whose life is so inwrought with the life of the State. He died on Satnrday night last after an illness of three or four weeks. Dr. Logan was horn in South Carolina, his father being a prominent physician. In 1828 he gradnated from the medical college of that State, and in course of time entered into the practice of his profession at New Orleans, from whence he came to California in 1849, locating at Sacramento. Even in those early days, when everything in the State was in a chaotic condition, and few people cared to do anything that was not to be rewarded promptly with gold, the doctor began keeping the records of the thermometer and barometer, rainfall, health statistics, etc., which he carefully continued until his late illness, and which have been so valuable that his figures and notes have been extensively copied not only in the United States, but throughout Europe, and caused him to obtain a very enviable reputation. At the time of his death he occupied the chair of professor of hygiene in the medical department of the State University, was secretary of the State board of health. of which he was virtually the originator, and also secretary of the board of health of Sacramento ; a prominent member of the State medical society, which he did much to reorganize a few years ago ; president of the Agassiz institute of this city ; an honorary member of the medical society of Vienna, etc. In 1873, at the 24th annual session of the American medical association, in St. Louis, he attended as a representative from California, and was honored by being eleeted president of the association. His love for science extended to its twin sister, art, to which he paid much attention. As a medical practitioner he was snccessful and popular, and in all his relations with society he was held in the highest esteem. His age was 68 years.

Daily Science.—The "science" which is sometimes poured into the columns of the daily newspapers, for the benefit of the farmers, is a peculiar commodity. An instance occurs: The *Chronicle*, in dilating on the squirrel nuisance, says, "Strychnine is not dissolved in water; acid is the only thing which will effectually dissolve it, as it is a mineral poison." Strychnine is, of conrse, a vegetahle poison, derived from nux-vomica and St. Ignatius bean. The idea that a thing must be mineral hecause it will not dissolve freely in water is new. It will be difficult to prove. We shall hear next from the *Chronicle* that a row-boat and a head of cabbage are minerals.

South Australia Commissioner.—Hon. Samnel Davenport, commissioner for South Anstralia to the Centennial exhibition, is at the Palace hotel in this city. We have received from him a valuable pamphlet entitled "Agrieulture in South Anstralia," which is full of interesting information concerning the country whence he comes.

Valuable Improvement in Pumps.

We illustrate on this page two styles of pumps for continuous discharge, with respectively three and four cylinders. The special object of this improvement is to cause the pump to throw a full and rapid stream of water continuously and with uniform velocity. Mr. A. J. Smith, 222 and 224 Fremont street, invented this pump and applied for a patent thereon, but finding that he had been anticipated by another inventor (S. D. Lount, of Chatanooga, Tenn.,) he has purchased the right for this coast, and is now manufacturing the pumps in various styles and sizes.

The pumps are made in the peculiar manner shown in the illustrations, in order not only to effect a saving of power, but also to keep

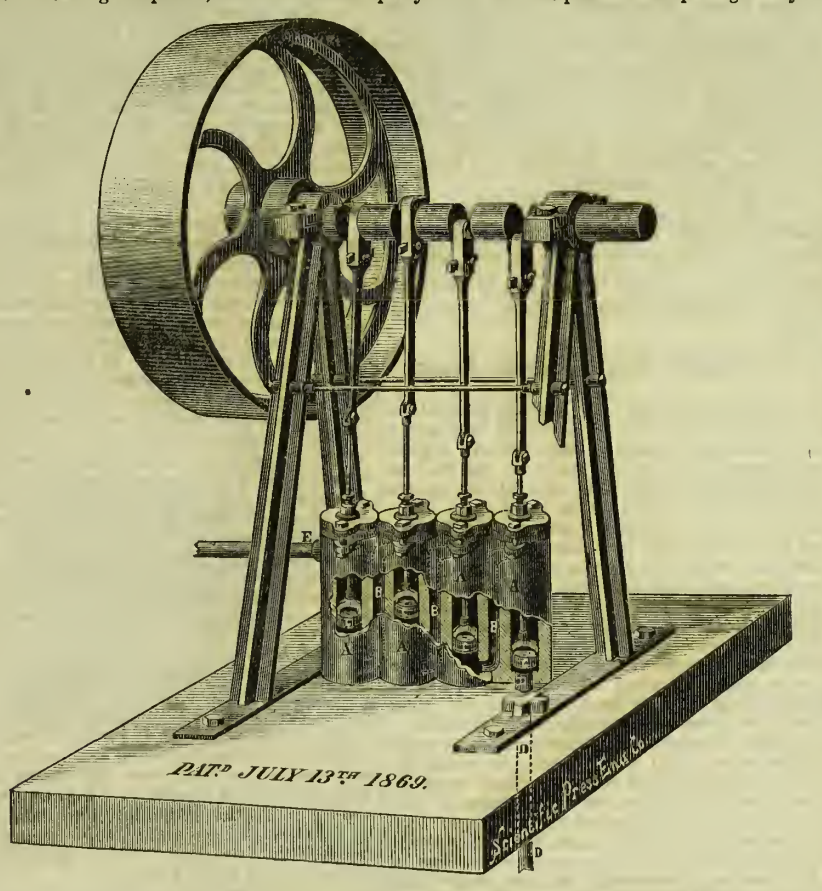


FIG. 1. FOUR CYLINDER CONTINUOUS ACTING PUMP.

the stream of water in a continuous motion and avoid the jar and strain which, as is well known, occurs in ordinary single cylindor pumps.

The construction, as will be seen, is qnite simple. The power is applied in the ordinary way. In Fig. 1, *D* is the feed pipe and *E* the discharge pipe. *A A A A* are the cylinders, *C C C C* are the valves, and *B B B B* the

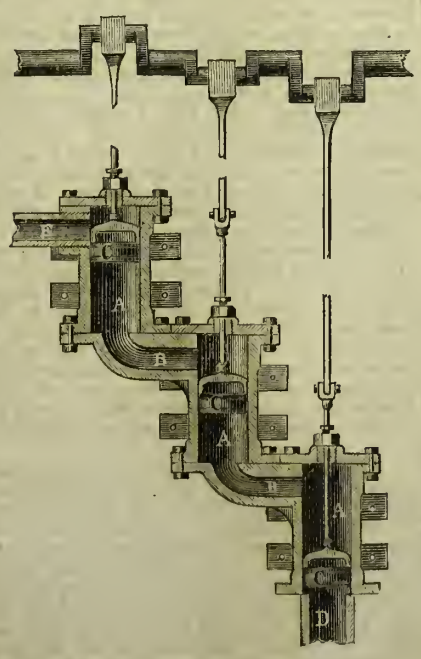


Fig. 2. Three Cylinder Pump.

passages by which the water passes from one cylinder to the other in its continuous motion. As the crank shaft revolves the pistons oporate in the usual way.

It will be seen that the cranks are arranged in Fig. 1 to follow each other at intervals of 90 deg. The object of this construction is that the water may always be impelled by that crank which is moving np most rapidly at any particular time, while those cranks which are passing the dead points shall have ceased for the moment to have mnch, if any, effect on the stream. In this manner the water is foreed along at all times by that plnnger whioh is at or near its maximum speed; the others meanwhile moving back in turn to take their places for another throw. In every case the lifting or forcing power is neeessarily applied by the most rapidly moving piston, and the water driven by this piston faster than the other pistons are moving, opens their valves and passes along without obstrnction from said pistons, although all are virtually operating in the same cylinder or water passage way.

Mr. Smith also makes these pumps with three pistons, as shown in Fig. 2. In this ease the three pistons are arranged in single cylinder, one over the other, to operate in the same way as with four cylinders. With three cylinders, however, the cranks follow each other at intervals of 120 degs.; the passages, *B B*, being arranged to carry the water from the top of one cylinder to the bottom of the next. In this figure, *A A A* are the cylinders; *B B* the passages connecting them; *C C C* the valves; *D* the feed pipe, and *E* the discharge. The three cylinders are but parts of one passage way for the water and the three pistons all operate upon the same stream, keeping it in continuons motion.

It will be seen that after once starting the pump the stream is kept continnously flowing, and there is no "thud" or jar as in ordinary single cylinder plnngers, which have to start the stream anew at each stroke of the piston. Any one familiar with the action of pumps, knows that this causes the greatest strain upon the valves and cylinder, and also limits the throwing capacity.

In the three and four cylinder pumps, as the valves open and close, when relieved from pressnre, they are able to do a large amount of work with little or no wear and tear. They are especially adapted to pumping to great elevations, which in mining work is an essential feature. Mr. Smith says he can make them to raise water three or four thousand feet at one single lift, and thus do away with the great nnmber of pumps which are now required to raise water that distance in short lifts of two or three hundred feet each.

For windmills, this continuous action motion is also very advantageous, as it will run slow or fast, without any jar or jerking motion. For irrigation, pumping in large quantities, it is claimed that it will pump with greater economy, as wind power is variable and unsteady. Mr. Smith informs us that he is about to construct a pump and windmill complete, which will he capable of pumping 20,000 gallons per hour to a hight of 100 feet, at a cost which need not exceed $1,500. In this connection wo aro referred to the work done with these pumps by Louie & Co., Italian gardeners on the Hudson tract, South San Francisco, where there is a three cylinder pnmp at work (5x8) in place of a three and one-half inch chain pump, and from which Mr. Louie assorts that he is getting nearly three times the water which the chain pump furnished him with the same windmill. Thoro is a pump constructed on this principle at the Chicago brewery, placed 60 feet deep in a nine inch well, and pumping the water 70 feet above the snrface, or in all ahout 130 feet. The size of this pnmp is four inch diameter, eight inch stroke. Running 50 strokes a minute, it raises about 4,000 gallons an hour. Its construction is somewhat different from those illnstrated here.

The qualities montioned above make this pump also invaluable for pumping by horse-power, as it makes as even work for the horse as hanling a load on a smooth rail. The smoothness of the operation enables the horse to do more work than he could if compelled to nndergo a continual jar and hammering, which the single cylinder pump necessitates. Mr. Smith asserts that this pump can be rnn np to the same piston travel as the steam engine.

The pump we saw in operation at Mr. Smith's shop has four cylinders, two inch bore and two inch stroke, the same as that shown in Fig. 1. When we saw it in operation it was running 150 strokes a minnte, under 500 pounds per square inch pressure, equal to over 1,000 feet elevation, and there was no perceptible noise or jar whatever. The stream from the discharge pipe flowed steady, with no break or sputter.

Queries and Replies.

How to Kill Gophers.

Editors Press:—From 1853 to 1859 I made war upon gophers with strychnine, by means of ditches with tin cans in the bottom, and traps; but the gophers increased and took many trees and more than half of every crop. In 1859 I adopted phosphorus as a poison, and found that a can of one pound, now costing $1.50, would k ll more gophers than $25 worth of strychnine.

How it is Done.

Take a five gallon can, cut the top out of it, put a stick of phosphorus into the can with a little cold water. Next pour in hot water (not boiling) and stir with a stick until the can is half full. See that the water grows hot enough to melt the phosphorus gradually. When melted add, while the water is stirred constantly, two pounds of sugar, and immediately after the sugar is melted, thicken with a mixtnre of corn meal and flour, half and half. When this is done add wheat until it becomes very stiff. The whcat will drink up the water, until the entire mass is quite hard.

How to Feed the Gophers.

I see one of your correspondents directs to put the poison in the hole where the gopher works out, while it is open. This is an easy way, but nine times out of ten he will root it out with the dirt and your labor is lost, and the medicine is on the surface. My way is to go to where the gopher has heen at work and dig until the main road is found, which is generally a foot under ground, and is large. When found, I take a piece of the poison as large as an almond, by means of a little stick, and put it into this main road or hole; then put a clod of dirt over the place, so as to leave the roadway unobstructed. This done, the earth is filled in. Along these roads the entire family of gophers frequently travel. Each takes a nip and passes on to its death bed. One week after going over the place and visiting each household, I make a second visit and if any fresh work is seen, repeat the dose. Especial care should be taken to leave a liberal supply in all the holes round the fences, so that visitors may partake and die. In this way a man kills all the gophers in an orchard of 60 acres in four days. To keep them down the same thing must be repeated as often as they come. Squirrels are killed by the same mixture. Phosphorus will last for months when put into the main runways of gophers. There is no danger to fowls from its use thus. W. W. B.

Centerville, Cal., Feb. 15th.

We know our correspondent to be one of our most intelligent and successful agriculturists, and his explicit directions for the destruction of these pests will be found of wide value to our readers.

"Roots Destroyed."

Editors Press:—In the Press of Jauuary 29th, page 72, E. B. Bole asks why his fruit trees die. I have lost many in the same way. Cause: "too muchee wet feet." Several years ago I lost some very valuable trees by irrigating them too freely the first time in the season, and in the heat of the day. Have also lost some lately by the water standing too long around them, even beneath the surface; and in both cases the diagnosis was the same as in Mr. Bole's case. No one ever saw the roots of trees behave thus badly in a dry, light soil.

I have noticed several orchards in this State on wet land that seemed to thrive very well for a few years and then begin to die off, from which I judge that fruit trees, like men, exposed to frequent and prolonged wetting of the feet, surely die young. Young trees with few and small roots near the surface can thrive where they cannot in after years when they must send their large roots deep down into the earth.

Mr. Bole dates from "Uncle Sam." Where is it? We are all familiar with the ideal whereabouts of our venerable and Centennial "Uncle," but did not know before that he had in California "staked out" a "local habitation and a name." D. M. Locke.

Springvale Farm, Santa Cruz.

Uncle Sam is in Lake county.

Fare to the Centennial.

Editors Press:—It is rumored in this country that the railroad companies only intend to charge $25. each way for a trip to Philadelphia and back to attend the Centennial. If this is so, there are probably 150 persons that I know of who will go from this country alone. Now, for the benefit of the readers of your paper, please ascertain and inform us if this rumor is correct. It would, in my opinion, benefit the railroad companies, for the travel would simply be immense. "?"

Upper Lake, Feb. 12th.

There is no foundation whatever for the report mentioned. There has been no reduction of fare agreed npon by tho Pacific railways; indeed they announce officially that they make none. There will be a reduction eastward of Omaha, but the amount will bo slight, compared with tho full fare across. An event liko the crossing of the continent for $25 need not be expected in a life time.

Underground Irrigation.

Editors Press:—I am requested to ask you what you know about underground irrigation as compared with surface; how best accomplished, etc. Please answer in next number of the Rural Press.

San Leandro, Feb. 7th. A. C. D.

In the Rural Press of March 29th, 1873, we gave an illustration of a method of underground irrigation for which appliances were patented by Mr. Aiken. Have any of our readers made a trial of this, or of any other system? We should be pleased to receive descriptions from any one who has experience or observation on the subject.

(Continued from Page 115.)

in selecting animals from which to breed, should have reference to the kind of land he is to stock in determining the breed he is to select, always remembering that his ideal can never be fully realized. He must decide what are desirable qualities for him, and cross with the view of establishing them. His proceeding must be of the "give and take kind," the highest excellence being his aim ever and always.

Objects in Dairy Breeding.

There are three objects in view by the breeder, each requiring a special mode of procedure. These are the objects: First—A liberal production of milk. Second—The formation of meat. Third—The preservation of stock. Reference must be had as well to the bull as the cow. Cows must separate the fatty and nutritious elements of food so as to introduce them into the circulation with as little loss as possible. The formation and secretion of milk depends upon the activity of the mammary glands excited by breeding. These glands, when healthy and active, take off from the blood what otherwise would be deposited in fat—and if torpid then fat is made rather than milk. It is the good milch cow that makes milk of her feed rather than fat. These qualities, he maintained, are transmissable; hence the importance of breeding. A liberal supply of milk and an aptitude to fatten are sometimes found in the same animal.

The accumulation] of hereditary tendencies necessary to the making of good milch cows are under the control of the breeder. Valuable as a good pedigree may be when the conditions are health and vigor, it is more than questionable when these are wanting, for prepotency will be wanting also. Breed from none but animals of an ascertained and fixed type, carefully bred in a line for years, regard having been had to the development of characteristic hereditary points, so that you have no "misfits"—but real thoroughbreds, in the true significance of that much abused word. Then it is that "like produces like" in the dairyman's herd as in Bates' herd. The Arabs have a proverb: "The value of the horse is in his breeding." So I say of the cow; her value is in her breeding. Having referred to the Arabs, I will quote again; first (and best), "both sire and dam of noble race;" second (faulty), "sire noble, dam not;" third (slightly inferior again), "sire ordinary, dam noble."

Disrseli, in his elegant biography of Lord George Bentinck, remarks "that it is vain for man to attempt to baffle the inexorable law of nature, which has decreed that a superior race shall never be destroyed nor absorbed by an inferior." This applies to races of cattle as well as races of men. To those about to begin breeding crossbreds or grades, I would say: whatever be the race or breed which the race selected may belong, observation and experience incline me to recommend Short Horn bulls as preferable to any other breed or race except it be the Holstein.

Sheep and Wool.

Weight of Fleeces.

Messrs. Severance & Peet, of Niles, Alameda county, recently sheared 30 head of ram lambs, Spanish merino, just one year of age, which yielded an average weight of fleece of 20 pounds and 2¾ ounces. Two of the heaviest fleeces weighed 24 pounds each.

At the same time 11 head of two year old rams were shorn, giving an average weight of fleece of 33 pounds and three ounces. These sheep have been kept upon a clean pasture of green alfalfa the past year, consequently had no dust or other foreign matter in their wool. If any breeder beats this, please communicate the facts to the Press.

California Wool.

It is a good thing to be criticised. It awakens spirit and reforms when they are needed. We notice that a firm of Philadelphia wool dealers write to the New York *Economist*, passing severe judgment upon us in some respects. If the coat fits any of us let us put it on and learn what we can from it. The following points are made:

There is too much poor stock shipped from there to our Eastern markets, hardly fit, as you say, for any purpose but packing; low, frowsy, burry, short wool, that does try the patience of manufacturers trying to produce goods from what is apparently cheap stock. We often hear mentioned the enormous increase that has taken place in the production of wool in California, and apparently it seems so, but the real increase is not so enormous as at a casual glance one would suppose. We admit that there has been an enormous increase in the amount of dirt and grease shipped as wool, but not so large an increase in the amount of pure, scoured wool, ready for carding. Take the difference, for example, in ten years past, and allow say 60 per cent. loss in shrinkage, for bringing the average of the California spring and fall clip into pure, clean, scoured wool (and we believe that the average shrinkage would really exceed that) and you have, per Grisar'a statement, the clip of 1865 as 8,949,931 pounds; this would produce 3,579,972 pounds scoured wool. The clip of 1875 was 43,532,223 pounds; this gives in scoured wool 17,412,889, a net increase of 13,832,917 pounds of wool. It looks rather different from a casual glance at the apparent difference in ten years of 34,582,292 ponnds, which would indeed be enormous, if it was wool instead of the greater portion being grease and dirt. Now, this shrinkage of 60 per cent. for the clip of 1875 amounts to 26,119,333 pounds, which is nothing but grease and dirt, and valueless, but it is weight and bulk, and costs money to transport from California to the Atlantic seaboard, not less than two cents per pound, which amounts to $522,386 66. It is business for the railroad and transportation companies certainly, but money thrown away, and a large sum to be so appropriated in these times of economy. We do not wish to be understood as advocating all this wool shipped in scoured state, but there certainly is room for improvement in putting up their wools, and leave more of the sacred soil at home. The facilities for washing may not be so great as in Ohio and other States, but there could, without doubt, be a great deal of dirt kept out, and the growers' cash receipts not reduced, either, by the reduced weight of his clip; and the same would apply to Texas and Colorado. We have seen wool from those sections where, upon opening the bales, the dirt was apparently shoveled in. How are these evils to be remedied?

We should be pleased to hear from our sheep raising readers concerning these representations. If the wrong be as it is painted, what is the remedy? In]what way do our practices of sheep husbandry need revising? Who will tell?

The Correct Way to Handle Sheep.

There is a right way and a wrong way, a hard way and an easy way, an awkward way and a skillful way to catch and handle a sheep. A great many men will seize the sheep by the wool on the back, with both hands, and lift the animal clear from the ground by the wool only. Barbarous! Let some giant grasp you by the hair of the head and lift you from the ground by the hair only! Would you not squiggle and squirm worse than the mute sheep does when lifted by the wool? And would not there be a complaint of a sore head for a week or two? If you do not believe it, try the experiment. We have slaughtered a great many sheep in years past, and when removing the pelts of such sheep as had been handled by their wool, we never failed to observe that beneath the skin wherever the animal had been caught by the wool, blood had settled. In many instances, the skin had been separated from the body so that inflammation was apparent. We have known proprietors of sheep to be so strict in regard to handling them, that they would order a helper from the premises if he were to catch a sheep by the wool on any part of the body. Some owners of sheep direct their helpers thus: "When about to catch a sheep, move carefully towards the one to be taken, until you are sufficiently near to spring quickly and seize the beast by the neck with both hands. Then pass one hand around the body, grasp the brisket, and lift the sheep clear from the ground. The wool must not be pulled. If the sheep is a heavy one, let one hand and wrist be put around the neck and the other pressed against the rump." We have always handled sheep in the way alluded to. We never grasp the wool. Others seize the sheep by a hind leg, then throw one arm about the body and take hold of the brisket with one hand. But ewes with lamb should never be caught by the hind leg, unless they are handled with extreme care. When sheep are handled roughly, especially if their wool is pulled, the small bruises and injuries will render them more wild and more difficult to handle.—*Practical Farmer.*

Useful Information.

Boiled Oil.—The *Industrial Monthly* says: Do not buy oil which has been treated with litharge, burnt umber, red oxide of lead or vitrol (blue or white,) or sugar of lead, or manganese, or any other siccative. Oil should be boiled in a copper kettle, if possible, set in masonry, and should be thoroughly stirred. While boiling, pieces of toasted bread should be occasionally floated on top of the boiling oil to remove the moisture; pieces of charcoal would answer the same purpose, and would do for fuel afterward. A furnace should be situated in the open air so as to allow the disagreeable vapor to escape, and should be built in such a way that no smoke or blaze could get to the oil, for if your oil gets smoked, it will spoil it in a measure for light colored work, and if the blaze can come near the oil, you run the risk of a fire, as oil at a high temperature evolves an inflammable gas. With oil prepared in this way you can do a better and more lasting job, and will find it to wipe out easier and not show so many brush marks; will not crawl if your under coatings are dry. Your wearing varnish will not strike in any more in one part than another.

An Ancient Woolen Factory.—At Pompeii a small woolen factory has just been discovered, near the house where the renowned fresco of Orpheus was recently found. In this factory are still seen pieces of woolen cloth, quite carbonized, and many instruments for carding and weaving similiar to those used in some small factories of this kind at the present day.

Pedestrian Training.

Pedestrianism, as an athletic exercise, has become deservedly popular. There is no course of gymnastics so well calculated to develop a large number of muscles, or to produce so beneficial an effect upon the system. There is a right way and a wrong way of walking—the one beneficial, the other negative in its result. What the right way is, a writer in an English contemporary tells us in the following:

The body must be held erect, with head well thrown back; the movement of the legs must be from the hip downward, and the body should be carried motionless. The arms should be swung well forward in harmony with the legs, and the elbow should, when in front, be nearly on a level and at almost right angles with the chin, the hands being open and extended. The leg should be brought well round from the hip, and the heel deposited on the ground in line with the rear foot, so as to leave your footmarks pretty nearly in a line. But above all things hold your head up and the body erect.

Stitches and other kindred annoyances are common in learning to walk, but the beginner would do well to walk it off, and never ease if seized with distress. To do so is to throw away the pace he has acquired from the commencement of his walk, and to knock all the regularity out of his stride.

Facts Worth Remembering.—A correspondent gives the following useful recipes: If you have been pickling or handling any acid fruit, and have stained your hands, wash them in clear water, wipe them lightly, and while they are yet moist, strike a match and shut your hands around it so as to catch the smoke, and the stains will disappear. If you have stained your muslin or gingham dress, or your white pants with berries, before wetting with anything else, pour boiling water through the stains, and they will disappear. Before fruit juice dries it can be often removed with cold water, using a sponge and towel if necessary. Rubbing the fingers with the inside of the paring of apples will remove most of the stain caused by paring.

To clean and restore the elasticity of cane chair bottoms: Turn the chair bottom upward, and with hot water and a sponge wash the cane; work well, so that it be well soaked; should it be dirty, use soap; let it dry well in the air, and it will be as tight and firm as new, provided none of the canes are broken.

Match mats can be made of ordinary sand paper, cut in circular and octagonal shapes, fastened upon pasteboard and bound with bright-colored braids, a ring attached to each, and the whole hung near the match safe for use whenever a match is lighted. The unsightly marks that disfigure many walls may, by this inexpensive and simple arrangement, be entirely prevented. There should be one in every room in the house.

How the Inner Surface of Glass Reflects Light.—Some one asks the *Scientific American* to explain the reflection of a ray of light from the inner surfaces of glass, diamonds, drops of water, and other transparent substances, causing the brilliancy of the diamond, the formation of the rainbow, etc. That journal answers as follows: The reflection from the inner surface of a transparent medium is similar to that from the outer surface. Observation and experiment have proved that it is a universal law that, when light passes from a dense into a rare medium, or *vice versa*, a part of the light is reflected in such a direction that the angles of reflection and incidence are equal. When, therefore, the surface between the two media is perfectly even, it acts like a mirror, and the smooth surface of still water is as good a reflecting mirror for the fishes under it as for men above, of which fact you may easily satisfy yourself by observing an aquarium. A piece of plate glass will also convince you of this by two reflections, one from the front and one from the back or interior surface, giving you two reflected images, which will coincide when the light falls perpendicularly, but become separated when the light is made to fall obliquely. The colors shown by diamonds or raindrops in the rainbow are not due to this reflection, but to the refraction of the rays when they enter and leave the diamonds or water drops; for the explanation of this we refer you to any modern text book on natural philosophy.

Purifying Water With Alum.—Alum will only purify water from organic impurities, which it will precipitate in the same manner as it precipitates dissolved coloring matter in the manufacture of lakes from dye woods, etc. One teaspoonful of pulverized alum in four gallons of water is sufficient; if the water contains such an amount of impurities that this quantity will not purify it, it is unfit for drinking purposes. In the artificial manufacture of ice from Mississippi river water, at New Orleans, this method is employed to purify the water before freezing it.

How White Shirt Buttons are Made.—Some varieties of these buttons are made as follows: Finely powdered steatite is saturated with soluble glass, dried and repulverized, and the powder thus obtained is pressed into molds by suitable machinery. They are then baked or fired in ovens, again dipped in solution of soluble glass and subjected a second time to the firing process. When cold they are polished by being placed in a rotating cask with water, dried, and again polished by rotation in a similar cask with soapstone powder.

A Pre-Historic tomb has recently been discovered in Dedham, Mass., at a point near the banks of the Charles river, about nine miles south of Boston. The tomb consists of a horizonal 10-foot excavation into a hill—the mouth of the arch of Roman shape, the walls and floor carefully built of unhewn stone, laid in mud plaster, innocent of lime. The central portion of the tomb was about 10 feet in diameter each way. A mass of matter, unconfined, and apparently the remains of an incremated body, occupied the center of the floor. No other remains or relics of any character whatever were found.

Various speculations are indulged with regard to the origin of the subterranean structure. It certainly was not of Indian origin, and differs altogether from any of the pre-historic remains so plentiful in the Mississippi Valley. Was it the remains of one of the early Norsemen who are known to have visited that coast some centuries before the discovery of Columbus? Most likely it was. It is not far from the famous Dighton rock, so well known from its curious, and, as yet, uninterpreted inscriptions; or from the spot where the body of a helmeted warrior—an undoubted European—was exhumed a few years ago. The Cambridge savans have the matter before them for elucidation. Their report is awaited with interest.

Air and Sunlight.—From an acorn weighing a few grains, a tree will grow 100 years or more, weighing several tons. A large part of this growth is derived from the sun, air, and water—but little from the earth. Wood and coal are but condensed sunshine, which contains three elements equally important to animal and vegetable life—magnesia, lime, and iron in the blood, which gives it its sparkling red color and strength; the lime in the bones imparts to them the durability necessary to bodily vigor, while the magnesia is important to many of the tissues. Thus the more sunlight we enjoy the healthier we shall be and the longer will life endure.

To remove tarnish from plated goods that have turned dark from the action of gas, steep the plated ware in soap lye for two hours, then cover it over with whiting, wet with vinegar, so that it may stick well upon it, and dry it by the fire; by thus drying the whiting is removed from the crevices without the least difficulty. Rub off the whiting and pass over it with dry bran. The silver will look exceedingly bright.

Electric Whistle.—M. Lartigues, in charge of the electric service of the Northern railroad of France, has recently described a mode of warning the engineer of a locomotive approaching a station that the track ahead of him is already occupied. M. Lartigues states that the apparatus has been in use for more than a year, and has already prevented several possible accidents. It consists essentially of a piece of wood about two yards long, covered by a plate of copper which is included in the electric circuit controlled by the operator at the nearest station. The plate is raised about four inches above the level of the rails and placed between them. When the locomotive passes over this contrivance, a brush of metallic wires which it carries is pressed smartly against the plate and closes the circuit on the locomotive, bringing a soft iron magnet into contact with its armature, and thereby opening the valve of a steam whistle, which continues to sound until shut off again by the engineer. The principal objections to the contrivance seem to lie in the facts that it requires the previous action of a telegraphic operator, and operates only in the vicinity of stations.

A Pavement Animalcule.—Prof. Leidy, of the Academy of Natural Sciences, describes in recently published proceedings of that body a curious animalcule which he discovered on street pavements. It is named *gromia* and resembles a cream-colored ball about 1-16th of a line in diameter. When placed in water, it in a few minutes projects, in all directions, a most wonderful and intricate net. Along the threads of this net (which are less than 1-30,000th of an inch in diameter) float minute *naviculæ* from the neighborhood, like boats in the current of a stream, until, reaching the central mass, they are swallowed. Prof. Leidy states that during dry weather the creature remains quiet in the dust, and that when rain falls it spreads its net and gathers food.

How Electricity Splits Trees.—The theory that the splitting of the trunks of trees by lightning is the result of the sudden evaporation of the liquids contained within them, has received much confirmation from experiments made by Osborn Reynolds, who succeeded in splitting small sticks of wood by passing the electric sparks through them after they had been impregnated with water. He also burst small glass tubes which were filled with water, although the same tubes when empty allowed the electric spark to jump through them without in the least disturbing them.

New Mode of Hardening Sandstone.—In Saxony, sandstone is soaked in a solution of alkaline silicates and of alumina. The liquid penetrates some inches into the stone, and renders the surface so hard that it resembles marble and will bear polishing. On being heated to a high degree, the surface vitrifies, and it may be colored at pleasure.

Is It the Roc?—Various accounts have lately been received of the appearance of an enormous rapacious bird in the interior of New Guinea, which has been called *Harpyopsis Novæ Guineæ*. May it not be the "roc" of the Arabian nights?

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.
Examinations Ordered and Reported by TELEGRAPH.
Examinations made of Assignments Recorded in Washington.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of Patents and Assignments.
Rejected Cases taken np and Patents Obtained
Every legitimate branch of the Patent Agency Bnsiness promptly and thoroughly conducted.
Send for Circular

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers,
No. 224Sansome street, SAN FRANCISCO.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.– Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., hreeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Lutber C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY,

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W H. GROVES, Stockton, Cal. Eggs for sale from Choice Podigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Valuable Land For Sale.

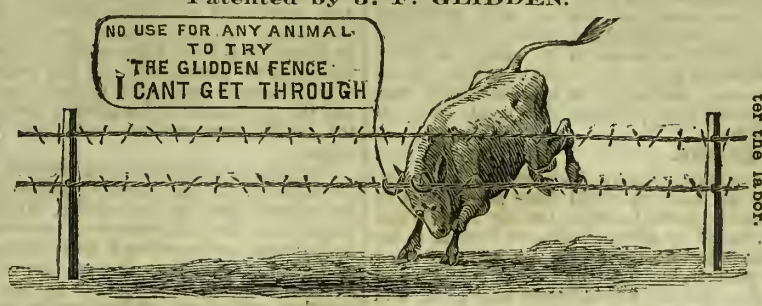
I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The pleutiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. Yon can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
General Agents for the Coast. K and 10th Streets, Sacramento.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
El Dorado, El Dorado Co., Ca

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

LEVI STRAUSS & CO.,

Patent Riveted Clothing,

14 & 16 Battery St., San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.
USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Franoisoo, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—cost nearly $245,000. Will be kept First-class, at $2.00 per day, and less by the week or month.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS COMPANY, 609 Sacramento St., S. F

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS? Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill.

H. K. CUMMINGS. 1858. H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the producer 4v23-1y

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

California Farmers' Mutual Fire Insurance Association.

No. 6 Leidesdorff St., Rear of Grangers' Bank.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't		I. G. GARDNER...V. Pres't	
G. P. KELLOGG, Treasurer		A. W. THOMPSON.....Att'y	
I. C. STEELE.....San Mateo		CHAS. LAIRD,..... Salinas	
A. WOLF.....Stockton		A. D. LOGAN,.....Colusa	
W. H. BAXTER.....S. F		G. W. COLBY .....Butte Co	
J. C. MERRYFIELD, Dixon		C. J. CRESSEY. ..Oakland	
A. B. NALLY....Santa Rosa		E. W. STEELE, S. L. Obispo	

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....	$3,026,378.00
TOTAL PREMIUMS.....	63,306.49
LOSSES PAID.....	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL. - - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

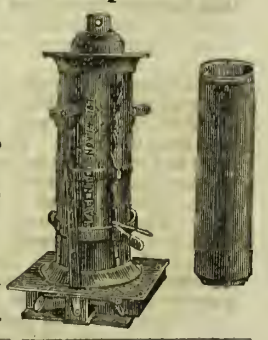
Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

We respectfully invite the attention of wool growers to our fine stock of Cotswool Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in Amcrica; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,
13v7-eow-tf Watsonville, Cal.

Office of Drain Pipe Works

S. W. Corner Sacramento and Montgomery Sts., S. F.



DRAINS CONSTRUCTED In any part of the State, and Work Warranted

E. T. MENOMY Proprietor.

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine imported Australian, Froneh and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,
433 California Street, S. F.
(Merchants' Exchange.)

TRADE MARK.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Novada.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Rnled, Printed, and Bound to Order

FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of J. M. DUDLEY, Dixon, Solano County, Cal.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Dewey & Co. {224 SANSOME ST} Patent Agt's.

(Continued from Page 117.)

stock is doing well. The beef is improved. The feed for the bees will be ample and good, and we trust that every interest will so flourish as to handsomely compensate all those who are engaged in these or other pursuits, and at present we see no reason to expect anything else.

SOLANO.

ITEMS.—*Times*, Feb. 11: M. N. Parker, who has been herding a band of sheep on the Eastman tract of land, situated at the head of Green valley, reports the loss of a thousand dollars' worth of stock during the recent snow storm in the hills. He says the snow was a foot deep. He is now moving his stock to Elmira or that vicinity. Several shipments of barley have been received lately from San Francisco to Roacher, living in Green valley. How is this? It seems to us that our farmers should keep enough on hand to carry them through the winter, as they must certainly have to pay freight, commision, etc., which will run the price pretty well up, much in excess of the price they received for their grain last fall.

SONOMA.

PUTTING IN VINES.—*Democrat*, Feb. 12: A farmer on Russian river is putting in this season on his hill land, 20 acres of Zinfindel grapevines. If they succeed he will set out at least 200 acres. We believe that both soil and climate in that part of the county are well adapted to grape culture. As this is the season for setting out grape cuttings, we will give our readers the benefit of the practice of one of our most successful vine culturists. With a crowbar he makes a hole of sufficient depth, places in it the cutting, and then fills the opening with sand instead of earth, as is the usual practice. He claims that the sand surrounds the stalk closely, excludes all air, prevents rotting, and is the surest of good results; and he has tried all systems.

THE CROP PROSPECT.—The summer fallowed and dry sown grain is looking very well. The plows are running in all directions. The grain in the vicinity of the Laguna is excellent for this time of the year. There has been no north wind, and the season to date is considered very favorable; it will be especially so if the good weather of the past few days continues. The crops on Russian river look well; it is said they were never better than this season. The grass on the range west of the river is very good, and the sheep are in fine condition.

POTATOES.—*Argus*, Feb. 12: Considerably less than the usual quantity of potatoes at this season of the year are stored in the warehouses of Petaluma. There is, however, much more than the usual amount on ranches where they were produced, the number of sacks within 12 miles of town being estimated at 25,000 or 30,000.

POISONING HOGS.—*Democrat*, Feb. 9: J. W. Kelly informs us that he found a few days ago two dead hogs in a shed on his place, half a mile from the house. The next day he went there and found that the hogs had been skinned, the head and feet cut off, and the meat packed away. The hogs had been very neatly butchered. A lot of Chinamen were at work near there, and it is supposed that they took this method of supplying themselves with pork. Poisoning pork was a common trick among the gipseys of England; next day they would beg the body of the dead hog, and have a grand feast. They called it "drabbing a baulo." If the Chinamen introduce the same practice in California some sleek-headed Asiatic will find himself several feet nearer his celestial home than the level of this earth, with his saudals hanging from his toes.

STANISLAUS.

FENCING A BENEFIT.—*News*, Feb. 11: Col. Dorsey, of this county has, the present season, built five miles of fencing on his farm north of Oakdale. By this means he will be enabled to save all of his pasturage, stubble and other waste products of his farm. It also enables him to handle his stock with less expense and more at his own convenience and interest. He is also strongly in favor of our own San Joaquin bullock, off of which he realized $150. The valley farmers feeding and producing more beef cattle for the winter market when prices rule high, he insists that many farmers allow material to go to waste on their farms that, with a very small amount of grain added, would produce from one to twelve head of fatted cattle. He mentions a case in his own experience the present winter, of a fat animal; was only a $35 ox when he took him in charge, and only about four months' extra feed given to him. He feels satisfied that he found an excellent market for what grain that animal consumed.

HOME PRODUCTS.—Mr. Pentland arrived in town this week with a load of wine, brandies and raisins, all the product of Stanislaus county. The wines and brandies were made by the Pentland Bros. The raisins were from the splendid vineyard of A. Schell, of Knight's Ferry. They were large, fine, plump, rich raisins, much superior to the article of commerce found in this market.

TULARE.

ROCKY FORD.—*Delta*, Feb. 10: Our farmers are preparing to harvest a larger crop than usual this season; every precaution is being taken to insure a good yield. Next to the plains, where there is a possibility of the land getting too dry, ditches are being cleaned out and other preparations for irrigation are being made, in case of necessity. The big ditch on the south side of Tule river, under the supervision of Capt. Haze and Mr. Clark, is being put in order for future use. It carries 120 feet of water, and so far has given satisfaction. As is well known by all persons at all familiar with this section, our lands next to the river are moist, and don't need irrigation. They have been known to yield as high as ninety bushels of barley per acre; in fact, we can defy the world to go ahead of us either in fruit, vegetables or grain. Our lands have been known to produce four crops in a season with only one sowing and plowing, and good crops of grain, too.

TUOLUMNE.

CALIFORNIA FRUIT.—*Independent*, Feb. 12: Dr. Sears has a splendid large photograph of California fruits, in which the big four-pound pear, raised by Alfred Smith, of Sonora, is the central figure. It was the intention to send this pear to the Centennial, but decay set in and the monster will therefore take a rest and rot.

YOLO.

IT'S LARGE.—*Mail*, Feb. 10: We met a farmer yesterday and asked him how he liked the looks of things. Said he, "It's large. I tell you I wouldn't trade myself for any man in Yolo county." And so it is universally. Everybody is pleased and more than satisfied. They are jubilant.

The Metric System.

The Centennial year is a fitting time to bring again to mind the advantage of the metric system of weights and measures, which has been approved by the United States government and which is gradually finding its way into the commerce of all civilized nations. To bring it into general use is to give the world a uniform standard and do away with the puzzling reduction from one sectional system into the system of another before one can form an idea of the quantities signified.

The matter is freshly brought to mind by a circular issued by the Boston Society of Civil Engineers, calling upon all to petition Congress to fix a date after which the metric weights and measures shall be the only legal standards.

It will be remembered that the chief points of excellence in the system are two; first, it is decimal, always increasing or decreasing by a fixed number, 10; second, all the units of length, surface, solidity and weight are closely related to each other, because two data only are used, the meter, and the weight of a cube of water, the side of which is one hundredth part of a meter. The meter is one ten-millionth part of a quadrant of the earth's surface, so that it is a fixed standard, enduring as the earth itself. All the other units are derived from this.

This system is sure to prevail, because of its simplicity and its fixed standards. One has only to think for a moment of inches, ells and barleycorns, beer quarts and wine quarts, bushels and centals, long tons and short tons, roods and leagues, and the hundred other measures which exist even in our own language, to perceive the advantage of a single uniform system. And then think that each nation has as many of its own, and the difficulty of conveying ideas of quantity appears. The new tables appear queer to some of us older scholars who are familiar with the various units, but by studying them they will become familiar and intelligible.

We give below three of the principal metric tables, and we may repeat them occasionally that the eye and mind may become familiar with the new and uniform weights and measures of the world.

Metric Tables.

The following are the principal metric tables:

LENGTH.

10 milli meters	make a centimeter.
10 centi-meters	make a decimeter.
10 deci-meters	make a meter.
10 meters	make a dekameter.
10 deka-meters	make a hectometer.
10 hecto-meters	make a kilometer.
10 kilo-meters	make a myriameter.

CAPACITY.

10 milli-liters	make a centiliter.
10 centi-liters	make a deciliter.
10 deci-liters	make a liter.
10 liters	make a dekaliter.
10 deka-liters	make a hectoliter.

WEIGHT.

10 milli-grams	make a centigram.
10 centi-grams	make a decigram.
10 deci-grams	make a gram.
10 grams	make a dekagram.
10 deka-grams	make a hectogram.
10 hecto-grams	make a kilogram.
10 kilo-grams	make a myriagram.

The liter is a cubic decimeter.
The kilogram is the weight of a liter of water.

California Fish for the Centennial.

It is the intention of the Smithsonian Institution at Washington, represented by its Secretary, Joseph Henry, and the United States fish commission, represented by Spencer F. Baird, United States commissioner of fisheries, to exhibit at the Centennial as complete a collection as possible of articles and specimens to illustrate the resources of the United States fisheries, which will form a part of the governmental display. A circular just received from Eugene G. Blackford, chairman of the committee on fish and preserved fish, 80 Fulton market, New York city, requests that the subject may receive attention on the Pacific coast, as it is especially desired, in view of the limited investigation hitherto made with the fisheries of this side of the continent, that its fish products may be fully displayed to the world. Any specimens of fish remarkable for their size, beauty or rarity, when forwarded, would be exhibited in their fresh condition in spacious refrigerators constructed for the purpose, the cost of transportation paid by the Government, and the specimens subsequently prepared for the Government museum and credited to the donor.

The proposed collection will embrace: First—An exhibition of the objects themselves, living, in refrigerators on ice, stuffed, dried or in alcohol, as also photographic representations and plaster casts colored from nature. Second—The productions derived from various species, either in their crude or modified states, together with their applications in the arts or trade. Third—the apparatus by which these objects are pursued, captured, killed and utilized. Fourth—the means by which the same are multiplied by natural or artificial methods, or maintained in a healthy living state. It is intended to illustrate all the various forms of salt and fresh water life—whales, seals, etc., aquatic reptiles, fishes, shell-fish, corals, sponges, algæ or seaweed, and other inanimate marine products. Special attention is to be paid to canned and preserved fish and the various products derived from the sea, as isinglass, gelatine, etc., while efforts will be made to collect a complete list of boats, harpoons, hooks, lines, artificial baits, traps, etc., together with models of smoke-houses, smoking establishments and fish oil factories, and particularly hatching houses, fish ways, etc., All articles intended for the exhibition should be addressed to the Smithsonian Institution, Washington, and marked "International Exhibition, 1876," with the name and address of the sender. Any information upon the subject may be gained by writing to Mr. Blackford, whose address is given above.

General News Items.

SERVIA is determined on war.

SENATOR SHARON has gone to Washington.

AND now they have unearthed an opium ring.

THE new iron furnace at Chico has been started up.

JAMES PARTON, the author, has married his stepdaughter.

F. X. MURRAY was run over and killed by a Mission street car last Saturday.

THE appropriation for the San Francisco mint will probably be reduced.

A REDUCTION of fully 33 per cent. in rents is probable throughout New York city this spring.

GILFORD WHITE, a Boston lawyer, has been arrested for purchasing $30,000 in stolen bonds.

THE new building at Berkeley, to be occupied by the California Watch Co., is nearly completed.

BEN CHAMBERS, a saloon keeper of Ukiah, killed his two brothers-in-law by shooting them in a quarrel last Monday.

THE manufacturers of pine lumber have agreed to run their mills on three-quarters time for the next 60 days.

MONCURE D. CONWAY, of London, has been called by the Parker Fraternity society in Boston to accept the desk formerly occupied by Theodore Parker.

THE robber of the New London bank has turned out to be the teller of the institution. All of the money has been recovered and he makes a full confession.

THE Khedive has asked for the assistance of of an English financier and the British government has sent him Charles Rivers Wilson, controller general of the national debt.

GENERAL ANDRES PICO, noted as a gallant officer under the Mexican government at the time of the acquisition of California by the United States, died in Los Angeles on Monday last.

COLLECTOR SHANNON has suggested to the Secretary of the Treasury the advisability of the Government either doubling the duty on coal or else erasing it altogether. At present it costs 13 per cent. of the duty to collect it.

LAST Saturday a terrible explosion occured in the Eastern mine, belonging to the Lehigh Valley coal company, and located in West Pittston, Penn., caused, it is believed, by one of the miners taking a lighted lamp into a chamber filled with foul air. The force of the explosion tore away the props, doors, tracks and great masses of rocks and coal. Four men were taking out dead, and twelve others more or less burned and mangled.

REVERDY JOHNSON, the distinguished statesman and jurist, was found dead on Thursday evening of last week, in the grounds of the Governor's mansion at Annapolis, Maryland. He was the guest of Governor Carrol, and dined that evening with other gentlemen at the Governor's house. It is supposed that he fell upon the stone pavement, as he was bleeding profusely when found. The skull was fractured from the upper portion of the forehead to the eyebrow, and there were cuts and bruises on the hands and legs.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington D. C., Feb. 15th, 1876.

FOR WEEK ENDING FEBRUARY 1ST, 1876.*

DIRECT ACTING STEAM ENGINE.—Willism C. Wilcox, S. F., Cal.

ROAD SCRAPER.—Robert A. Haw, Enreka, Cal.

CARPET CLEANER AND BEATER.—Chas. Elsasser, S. F., Cal.

BALE TIE.—Thomas Bailey, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

SETH GREEN ON SEA LIONS.—The attention of Seth Green, the well-known fish culturist, has been drawn to the proposed legislation for the extermination of the sea lions at the entrance to the harbor, and he writes from Rochester as follows: "I see by the papers that your legislators have or are about to pass an act for the destruction of the sea lions that inhabit the rocks at the mouth of San Francisco bay. My opinion is that it would be a shame to kill them. The whole of them do not destroy as many fish as one Chinaman, and if they are all killed you will never see any more on those rocks. If there are too many, employ some honest citizen to kill a certain number; but do not destroy the whole interesting family of sea lions. If you do you will be sorry but once, and that will be the remainder of your lives."

THE firm of C. H. & L. J. McCormick, among the oldest manufacturers of harvesting machines in this country, are about to introduce their manufactures on this coast, having appointed Mr. P. Mohan, of this city, general agent for the Pacific States. Those of our readers at all interested in improved agricultural machinery would do well to send for illustrated circulars to P. Mohan, 106 Davis St., S. F.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

We would no more be without Dobbins' Electric Soap, (sold by Newton Bros. & Co., San Francisco,) in our family than without a stove. It is pure, and does its own work without the main strength of the washwoman. Try it.

A BROOM MAKER who understands his business, is wanted to go to Ukiah, for a steady situation. Address this office.

TRAVELING AGENTS WANTED

For this paper. Experienced canvassers can make excellent wages. None but intelligent persons of good recommendation need apply.

Designing and Engraving at This Office.

We are prepared to do fine Wood Engraving for illustrating Landscape Scenery, Buildings, Machinery, Works of Art, Manufactured Articles, Trade Marks, Seals, Etc. We have a first-class

Machine for Engraving

A portion of the work, which can be finished thereby more perfectly than by the eye and hand alone. Our patrons can depend upon first-class work always, and at reasonable prices. Samples can be seen at our office.

DEWEY & CO.

MENZO SPRING,
Manufacturer of
Dr. Bly's Patent Artificial Limbs.
OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco
eowbp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, February 16, 1876.

There have been scenes of activity in many of our city markets, owing to the better weather. In staple products there has been a firm course of trade without marked change in prices. In articles of food which are gradually becoming scarcer as we approach nearer to the supply of new, there has been an advance in value and a good inquiry.

The subject most talked of in our city trade is the depreciation of silver. Several trade organizations and merchants' meetings have declared that they will not accept silver in payment for goods for amounts over five dollars, except at a discount. There is growing into the trade two sets of prices, one for silver and another for gold. It will be well for our country readers to remember that such a condition of affairs prevails, and do their business accordingly. It is very unfortunate that such a matter has arisen, and a remedy would be a public blessing.

In Wheat there has arisen a firmer feeling. The Liverpool quotation has maintained itself and shows a higher weekly average than for the week before.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	CAL. AVERAGE		CLUB.	
Thursday	10s 2d@10s 4d		10s 6d@11s	—
Friday	10s 3d@10s 5d		10s 6d@11s	—
Saturday	10s 3d@10s 5d		10s 6d@11s	—
Monday	10s 3d@10s 5d		10s 6d@11s	—
Tuesday	10s 2d@10s 5d		10s 6d@11s	—
Wednesday	10s 2d@10s 5d		10s 6d@11s	—

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	13s —@13s 3d	13s 6d@13s 9d
1875	8s 10d@ 9s 2d	9s 3d@ 9s 9d
1876	10s 2d@10s 5d	10s 6d@11s —

The Supply of Wheat.

To one who has noticed our tables of produce receipts each week, it must have appeared that the stock of Wheat in the State is rapidly approaching narrow limits. It is the opinion of the most expert that the trade will now swing itself beyond the reach of any reduction of the Liverpool price. The *Commercial News* of February 14th propounds the following questions:

"How much Wheat have we left in excess of our requirements? What is our surplus for export this day?"

The *News* then proceeds to answer its own queries by stating that the Produce Exchange on January 1st, 1876, made the

	Centals.
Entire stock in the State of California	2,690,858
And 57,786 bbls Flour, which reduced to Wheat, equals	173,864
Total stock	2,864,216
	Tons.
Which, reduced to tons, gives	143,215
We have exported from January 1st to date	55,193
Vessels now on the berth will take	18,000
Making total quantity shipped and now loading	73,193
Which, substracted from the total stock, leaves.	70,022
To this must be added receipts from Oregon since January 1st	2,115
Leaving the actual stock, February 12th	72 138

The leading millers and dealers estimate the consumption of Wheat for milling purposes alone for the entire State at 12,500 tons per month, and as we will have no new Wheat fit for milling prior to July 15th, we shall require 62,500 tons for milling alone. A good deal of Wheat is also used for distilling, enough to consume the balance of stock.

The report of Grain stocks in the Chicago warehouses shows a comparative deficiency in Wheat, Corn and Oats, and an excess in Rye and Barley. The figures at the close of January in each year are as follows:

Wheat, bushels	3,439,700	2,765,300
Corn	1,525,000	1,133,500
Oats	544,800	444,100
Rye	14,800	139,200
Barley	292,400	353,100

The stock of Barley is not large, but is greater than it was a year ago, and accounts in a measure for the limited demand on this market. There does not appear to be an excessive stock of Wheat in the Northwestern States, and it is thought that prices will materially improve in the Western cities of distribution before the next harvest.

A dispatch from New York city, dated February 12th, says: There has been a slight rally in the Wheat market this week, the low and medium grades of Spring closing three to five cents higher. The improvement is due to increased shipments to Great Britain, in anticipation of higher prices there, consequent upon the decreasing supplies.

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Weekly Receipts of Domestic Produce.

ARTICLES.	WEEK JAN. 26.	WEEK FEB. 2	WEEK FEB. 9.	WEEK FEB. 16.
Flour, quartor sacks	10,024	53,501	42,600	30,737
Wheat, centals	73,998	105,672	262,148	113,238
Barley, centals	7,948	7,416	25,377	10,476
Beans, sacks	254	1,012	679	1,047
Corn	2,690		728	570
Oats	12,454	7,875	1,500	1,327
Potatoes, sacks	6,577	10,133	9,460	6,510
Onions, sacks	770	705	1,424	1,116
Wool, bales	158	62	65	245
Hops, bales		45	31	23
Hay, bales	994	6,858	3,501	1,920

The telegraphed review of the European Grain markets from the *Mark Lane Express*, February 14th, is as follows:

"Apart from the question of improvement in prices some moderate reaction may be reasonably looked for now, in consequence of the low prices ruling, the recent cold weather and the fact that, owing to the haplessness induced by the long-continued bad trade, millers have not kept up their stocks and are now running short. The firmness of the Paris market, in spite of the large stock and our discouraging advices, is significant. There is an average rise of two francs on all grades of Flour."

Bags—There is no quotable change. The dealers inform us that there is little doing except in speculation.

Barley—There has been a considerable trade in Barley, both for Feed and for shipment Eastward. We note sales as follows: 2,000 sks Feed, $1.22½@1.25; 350 do, $1.25 per ctl; 1,000 sks Bay Brewing for the East, $1.30; 300 sks Feed, $1.17½, gold; 25,00 do, $1.22½, one-half gold; 600 sks good Coast Feed, $1.25, half silver; 600 do choice Bay Brewing, $1.35; 2,000 ctls choice Bay Brewing, $1.35; 709 sks Coast Feed, $1.25; 500 sks dark Coast, $1.18¾; 3,200 do fair do, $1.22½; 5,000 do good do, in two lots, $1.25. All the above prices are silver. 2,000 sks choice Coast Feed, $1.25, and 2,600 sks good do at $1.22½ per ctl.

Beans—Beans are quotable higher for some varieties.

Corn—There have been receipts of Corn by sea and quite a business has been done. We note the following sales: 350 sks damp Yellow, $1.20; 300 do good, $1.27½; 300 do good large Yellow, $1.27½; 200 do choice do, $1.32½ per 100 lbs; 100 sks fair White, $1.25, half silver; 400 do choice Yellow, $1.30; 159 sks large, $1.30; 241 do, $1.27½, payable on the 28th; 279 do, $1.30; small Round at $1 42½ per ctl.

Dairy Produce—The supply of Butter is large and prices have declined. Eggs have also taken the down track.

Feed—Feed is selling at former rates. First-class Wheat Bay has sold at our extreme, $19 per ton. We note the following sales: 360 bls choice Wheat, $19 per ton; 300 do inferior do, $16; 11 tons Barley, $14; 48 do Volunteer, $15.50; 18 do coarse Wheat, $16.50; 48 tons Volunteer Wheat and Wild Oat, $15.50; 16 do coarse Wheat, $16 per ton.

Fresh Meat—First quality Beef is held firmly at quotations.

Provisions—The Provision market is quiet and prices unchanged. At the East the market has advanced materially.

Hops—There have been more liberal receipts of Hops during the week, but we do not learn of any change in prices. The New York market is reviewed by Emmett Wells in his circular of February 4th as follows:

We have to report a strong and active market, with the price 1c ₱ lb better than last week on choice N. Y. State Hops. Of the 3,000 bales received this week, 2,200 bales have cleared for export. Brewers would buy more freely, were it not for the fact that exporters not only pay more liberal prices, but get in ahead and take all the choice Hops as fast as they arrive. In order to show how much a choice article is appreciated in this market, we will state the fact, that Wm. H. Akin & Son, Hop merchants, this city, are the owners of a straight growth of 104 bales N. Y. State Hops on which they now have under consideration a cash bid of 20c ₱ lb. The quality surpasses anything we have seen this season. A few bales of the growth will be reserved and sent to the Centennial Exhibition, where they will probably take the first premium. The Hops will be branded and known as the "Centennial Growth." California Hops are quoted at 17@20c.

Oats—Oats have been received in considerable amount both from Omaha and Oregon; prices are maintained, although the supply seems ample. We note sales of 400 ctls from Omaha, sold prior to arrival at $2 ₱ ctl; 200 sks California feed at $2.15; 200 sks fair Omaha, $2.12½; 200 sks do do, $3.15. We quote the range for feed at $2 05@2.25 ₱ ctl.

Onions—Onions have shown a marked improvement during the week, as will be seen by the following sales: 232 sks Oregon, at $2 per cental, silver; California, $1.87½@$2; 100 sks Stockton, at $1.75@$1.87½; sales of choice Union City, $2 per ctl.

Potatoes—The receipts of Potatoes have been large and the market is well stocked. We note the following sales: Early Rose at $2.87½ per ctl; Pink Eyes at $1.62½ and Sweet at $3—all from Sacramento river. Sales of Oregon have been made at $2.65 per ctl for Pink Eyes, $2.75 for Early Goodrich, and $1 65 for Garnet Chile. Humboldt, $1.60@$1.65 for best lots. 600 sks ordinary Salinas, $1.25; 270 do choice Petaluma, $1.60@$1.65; 250 sks choice Humboldt, $1.62½@$1.65 per ctl; other grades do, $1.50@$1.55; 110 do Petaluma, $1.62½; 350 sks Tomales at $1.50@$1.65 per ctl; 300 do Petaluma, $1.55@$1.62½; 900 do do, $1.60@$1.62½; Humboldt, $1.50@$1.55; 200 sks choice Russian River, $1.60. We quote ordinary to choice at $1.30@1.55 per cental.

Wheat—The transactions in Wheat have been within the range of our quotations. We note the following sales: Round sale of 27,000 centals Choice, in warehouse at Pacheco, to a miller, at $1.90, equal to $1.95 here; 1,500 do good, for distilling, $1.90. Sales of 5,000 sks shipping, $1.90; 3,000 do milling, $1.95; 2,000 sks choice shipping at $1.90; 1,400 sks do do to finish up a ship, at $1.92½; 30,000 ctls choice milling at $1.95, and 18,000 do good shipping, to be delivered at Vallejo, at $1.85; 670 ctls milling, $1.92½; 1,500 do, for distillery, $1.90; 3,000 sks choice milling, $1.95; 2,000 sks choice shipping, alongside, $1.90; 1,400 do do, $1.92½ per cental.

Wool—The ship *Constitution* took out 32,000 lbs for New York. The stock of Wool is very light in this market. The course of the Eastern markets is as follows by telegraph:

NEW YORK, FEB. 12.—The Wool market exhibits but few important changes. Holders of California have been somewhat anxious of late to effect sales, and the result has been that in many cases low prices have been accepted. Sales for the week are 2,500 lbs Australian at 48c.; 12 bales grav Indiana at 23½c.; 260 000 lbs Fall California at 14@19½c.; 119 bags of scoured do, at 56@58c.; 17 bales lambs' at 21c.; 100,000 lbs choice Spring do, at 32½c.; 9,000 lbs Western Texas at 25@27c; 2,200 lbs Oregon, part at 29c.; 125 baga super pulled at 42@45c.

BOSTON, FEB. 12.—During the past week the Wool market has been more active, with an improved feeling, although no change in prices has taken place. The principal transactions of the week were the purchase of upwards of 200,000 lbs medium and No. 1 fleeces by a Philadelphia house, and the sale to a leading manufacturer of 217,000 lbs Oregon Wool. California Wool continues to attract considerable attention, and holders are working off their stocks very rapidly. Sales for the past week have been 458,000 lbs at 15@25c for Fall, and 20@27c for Spring. Pulled Wools are not so much sought after, the sales of the week comprising 134,000 lbs super and X, including desirable lots of Eastern supers at 49@50c., and combing supers at 52c., but the principal transactions have been in the range of 40 or 45c for super and X.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., February 16, 1876.

BEANS.			
Bayo, ₱ ctl	3 50	@	3 75
Butter	1 75	@	2 00
Pea	1 75	@	1 90
Pink	2 00	@	2 50
Sm'l white	1 70	@	1 85
BROOM CORN.			
Oommon, ₱ lb	2	@	3
Choice, do	4	@	5
COTTON.			
Cotton, ₱ lb	15	@	18
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Fresh Roll per lb	25½	@	27½
Point Reyes	30	@	—
Firkin	30	@	32½
W st'n Reserve	15	@	20
New York	25	@	27½
CHEESE.			
Cheese, Cal., lb	14	@	16
do Old	14	@	17
Eastern	16	@	20
EGGS.			
Cal. fresh ₱ doz	35	@	40
Ducks'	—	@	35
Oregon	30	@	35
Eastern	30	@	32½
FEED.			
Bran, per ton	—	@	22 50
Corn Meal	29 00	@	30 00
Hay	15 00	@	19 00
Middlings	32 50	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	— 65	@	70
FLOUR.			
Extra ₱ bbl	5 75	@	6 12½
Superfine	4 75	@	5 00
FRESH MEAT.			
Beef 1st quality lb	7	@	9
Second do	6	@	7
Third do	5½	@	6
Spring Lamb	—	@	15
Mutton	5	@	6
Pork, undressed	6¾	@	7
do, dressed	9	@	9½
Veal	5	@	7
Milk Calves	8	@	8½
GRAIN, ETC.			
Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Chevalier	1 30	@	1 50
Corn, White	1 05	@	1 10
do Yellow	1 12½	@	1 30
Oats	2 00	@	2 25
Rye	1 50	@	1 55
Wheat shipping	1 85	@	1 90
do milling	1 90	@	1 95
HIDES.			
Hides, dry	15	@	16½
do wet salted	7	@	7½
HONEY, ETC.			
Beeswax, per lb	25	@	27½
Honey in comb	18	@	22½
do Strained	6	@	12½
HOPS.			
New crop	10	@	12
NUTS—Jobbing.			
Alm'ds h'd sh'l ₱ lb	8	@	10
do, soft sh'l	16	@	20
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18
ONIONS.			
Union City ctl	1 75	@	2 00
Stockton	1 50	@	1 87½
POTATOES.			
Petaluma, ₱ sk	1 50	@	1 60
Salt Lake	1 65	@	1 70
Sac River	1 50	@	1 62½
Humboldt	1 50	@	1 65
Early Rose	—	@	2 87½
Sweet	—	@	3 37½
POULTRY & GAME.			
Hens, per dz	8 00	@	9 00
Roosters	9 00	@	10 00
Broilers	7 00	@	8 00
Ducks, tame, dz	10 00	@	11 00
do Mallard	3 00	@	4 00
do Canvass	4 00	@	4 50
Geese, per pair	2 50	@	4 00
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	16	@	20
do Dressed	18	@	23
Quail, per doz	1 00	@	1 75
Snipe, Eng., doz	1 50	@	2 00
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	3 00
PROVISIONS.			
Cal. Bacon, L'd, lb	15	@	15½
do Medium	14	@	14¾
do Heavy	14	@	—
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'rn Should's	—	@	10
Hams, Cal	14	@	14½
do Armour	16½	@	17
do Worster's	17	@	17½
SEEDS.			
Alfalfa, Chile lb	8½	@	11½
do California	11	@	13
Canary	20	@	22½
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennia do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do. Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy	11	@	13
TALLOW.			
Crude, ₱ lb	6½	@	7½
Refined	8¾	@	9
WOOL, ETC.			
FALL—			
Seedy, ₱ lb	11	@	12½
Choice free	12	@	18
Burry	9	@	11
Oregon	—	@	—

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., February 15, 1876.

FRUIT MARKET.			
Oranges Mex. ₱ M	15 00	@	35 00
Tahiti, do	—	@	—
Cal. do	15 00	@	40 00
Limes, Mexican, ₱ M	7 50	@	10 00
Malaga Lemons, ₱ bx	12 00	@	14 00
Cal. ₱ 100	1 50	@	3 00
do Sicily ₱ b'x	12 00	@	14 00
Bananas, ₱ bnch	2 50	@	4 00
Cocoanuts, ₱ 100	7 00	@	9 00
Pineapples, ₱ dz	7 00	@	8 00
Apples, ₱ box	1 00	@	1 25
do Choice	2 00	@	—
Blackberries	—	@	—
Figs	—	@	—
Huckleberries	—	@	—
Strawber's ₱ ch	—	@	20 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ ch	—	@	—
Quinces ₱ bx	—	@	—
Cranberries ₱ bbl	13 00	@	14 00
Peacnes, ₱ bx	—	@	—
Pears, ₱ bx	75	@	1 00
do Choice	2 00	@	3 00
Crab apples, ₱ bx	—	@	—
DRIED FRUIT.			
Apples, ₱ lb	7½	@	9
Pears, ₱ lb	8	@	13
Peaches, ₱ lb	12	@	13
Apricots, ₱ lb	14	@	15
Plume, ₱ lb	7	@	8
Pitted, do ₱ lb	18	@	20
Raisins, imported	3 25	@	3 75
Cal. Raisins	8	@	12½
Black Figs, ₱ lb	5	@	10
White, do	8	@	10
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10
VEGETABLES.			
Asparagus	—	@	—
Beets	—	@	—
Cabbage, ₱ 100 lbs	75	@	1 00
Carrots, per ton	10 00	@	2 00
Cauliflower, doz	50	@	75
Celery, doz	50	@	75
Garlic, ₱ lb	—	@	6
Green Peas	—	@	—
Green Corn ₱ doz	—	@	—
Sum'rSquash ₱ box	—	@	—
Marro'fat Sq'sh, tn	—	@	15 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Parsnips	—	@	—
Shell Beans	2	@	3
Peppers, green, bx	75	@	1 00
Okra	4	@	5
Quonmbers, ₱ box	1 25	@	1 75
Tomatoes, box	1 00	@	1 50
Egg Plant, bx	—	@	—
Rhubarb	—	@	—
Lettuce	—	@	—
Turnips, pr ton	—	@	—
Musbrooms, lb	8	@	10

LEATHER.

[WHOLESALE.]

WEDNESDAY M., February 16, 1876.

City Tanned Leather, ₱ lb	22@28
Santa Cruz Leather, ₱ lb	22@28
Conntry Leather, ₱ lb	22@28
Stockton Leather, ₱ lb	25@29
Jodot, 8 Kil., per doz	$50 00@ 54 00
Jodot, 11 to 13 Kil., per doz	68 00@ 72 00
Jodot 14 to 19 Kil., per doz	82 00@94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00@ 74 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	63 00@ 67 00
Cornellian Females, 14 to 16 Kil	71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil	58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil	66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil	72 00@ 74 00
Simon, 18 Kil., ₱ doz	61 00@ 63 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon, 24 Kil. ₱ doz	72 00@ 74 00
Sobet Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 45
California Kip, ₱ doz	40 00@ 60 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 4 50
Best Jodot Calf Boot Legs, ₱ pair	5 00@ 5 25
Good French Calf Boot Legs, ₱ pair	4 00@ 4 75
French Calf Boot Legs, ₱ pair	4 00@ —
Harness Leather, ₱ lb	24@ 32½
Fair Bridle Leather, ₱ doz	48 00@ 72 —
Skirting Leather, ₱ lb	33@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Buff Leather, ₱ foot	17@ ½
Wax Side Leather, ₱ foot	17@

RETAIL GROCERIES, ETC.

WEDNESDAY M., February 16, 1876.

Butter, Cal. ch'ice	35	@	45
Cheese, lb	18	@	30
Eastern	25	@	30
Lard, Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam, bl'd	25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wh. crsh'd	12½	@	13½
do lt. brown, lb	8	@	9½
Coffee, green, lb	23	@	35
Tea, fine blk, 50, 65, 75		@	1 00
Tea, finest Jap, 55, 75, 90		@	1 00
Candles, Admant'ine		@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powders, dz	1 50	@	2 00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Bowen's Cream Tartar lb	—	@	75
Can'd Oysters, dz	2 00	@	3 50
Syrup, S. F. Gol'n	75	@	1 00
Dried Apples	10	@	12½
Dri'd Cur. Prunes	12½	@	14
Dri'd Figs, Cal	9	@	10
Dri'd Peaches	11	@	15
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz. bot	3 00	@	4 50
Whisky, O.B. gal	3 50	@	5 00
Fr. Brandy	4 00	@	8 00

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., February 16, 1876.

BAGS.			
Eng. Stand Wht	10½	@	11
Neville & Co's			
Hand Sewed	10½	@	11
24x36	11	@	11½
21x40	12	@	12½
Machino do 24x40	12	@	12½
" " 23x40	11¼	@	11½
" " 22x40	11	@	11¼
" " 22x36	9½	@	10
Flour Sacks ½s	9½	@	11
" " ¼s	6¼	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	8¾	@	9
do 40-in	7½	@	8
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	11
single seam do	—	@	—
Bean Bags	7½	@	8
Barley Bags 24x35	11¾	@	12
do 23x40	11½	@	12
do 24x40	12	@	12½
Oat Bags, 24x40	12	@	12½
do 28x36	—	@	13½
Detrick's "E. W."	9½	@	10
do "E"	—	@	9½
CANNED GOODS.			
Ass't'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies 4 lb	25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do ⅛ boxes	3 00	@	—
COAL—Jobbing.			
Australian, ₱ ton	—	@	9 00
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Oumberl'd	—	@	18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	13 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60
COFFEE.			
Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Gnatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Grounds in cs	25	@	—
Chicory	27	@	—
FISH.			
Sac. Drs Cod, new	4	@	4½
cases	6	@	7
do boneless	8½	@	10
Eastern Cod	7½	@	8
Salmon in bbls	50	@	9 00
do ½ bbls	4 50	@	5 00
do 2lb cans	2 25	@	2 30
do 1lb cans	1 25	@	1 30
do Col. R. ½ lb	5 00	@	5 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bbls	9 00	@	11 00
" Extra	—	@	12 00
" in kits	1 90	@	2 00
" Ex mess	3 00	@	3 50
" Ex mess. ½ bs	—	@	12 00
Pio'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50
LIME, ETC.			
Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50
MISCELLANEOUS.			
Putu	—	@	9
NAILS.			
Assorted size, keg	3 75	@	4 00
OILS.			
Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	1 25
Baker's A A	—	@	1 40
Cocoanut	55	@	60
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	80	@	—
do boiled	—	@	75
China nut in cs	70	@	75
Sperm, crude	—	@	1 40
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	—
Lard	—	@	—
Oleophine	—	@	28
Devoe's Bril't	—	@	—
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel kerosene	23	@	25
Olive	—	@	3 50
Downer Kerose'e	40	@	—
Elaine	40	@	—
Gas Light Oil	23	@	25
PAINTS.			
Pure White Lead	9¾	@	10¼
Whiting	—	@	2
Putty	4	@	4½
Chalk	—	@	2½
Paris White	2¾	@	—
Ochre	3	@	5
Venetian Red	3½	@	5
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal.			
White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60
RICE.			
China No. 1	6 00	@	6 25
Hawaiian, ₱ lb	—	@	8
Carolina, ₱ lb	10	@	—
SALT.			
Oal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00
SOAP.			
Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	10
CANDLES.			
Grant's	16½	@	17
Mitchell's	20	@	22
SPICES.			
Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	15½
Pimento	16	@	17
Gr'nd Allsp'rd	12	@	12½
do Cassia	—	@	1 50
do Cloves	—	@	1 50
do Mustard	—	@	1 20
do Ginger	—	@	1 00
do Pepper	—	@	1 00
do Mace	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50
SUGAR, ETC.			
Cal. Cube per lb	—	@	12¾
Circle A crushed	—	@	12½
Powdered	—	@	12¾
Fine crushed	—	@	12¾
Granulated	—	@	11½
Golden C	—	@	11
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	70
Hawaiian Molasses	25	@	27½
TEA.			
Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	90
Gunpo'der, Cant.	75	@	1 00
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy. Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55
TOBACCO—Jobbing.			
Bright Navys	50	@	65
Dark do	50	@	55
Paces Tin Foil	—	@	75
Gregory	70	@	—
Dw. f Twist	65

The Horse.

Management of Express Horses.

The number of horses kept at the stables of the Adams express company in Cincinnati is 54. Four hostlers attend to these. Promptly at four o'clock A. M. the watchman of the stables gives to each horse eight ears of corn. Then, about five o'clock, the hostlers commence their duties. Of those under the care of each, one by one is led to the watering trough and then to the urinary. This consists of a pit sunken 10 or 12 inches below the level of the basement ground floor, and kept compactly filled with sawdust and short shavings. And it is a remarkable fact that a horse in this stable scarcely urinates excepting at this place, especially prepared for him. When horses come in from their work, the harnesses are removed, and they are at once led to the urinary. When a fresh or green horse comes to the stable, by being driven with some old "stager" that knows the rules of the stable, the new comer soon learns to conform to the habits of the older inmates.

From five to seven o'clock, then, each horse is taken in hand and thoroughly curried, brushed and cleaned, 10 minutes being spent by a hostler upon each horse. A damp woolen cloth is always rubbed over the coat of each horse after being curried and brushed. This removes all loose dander and gives a fine, glossy, sleek appearance.

The horses are fed nothing in the morning, excepting the eight ears of corn. After being led back to the stalls when cleansed, they are then ready for work. The same process of currying, brushing and cleaning is also gone through with at noon and at night, at the close of their forenoon's and afternoon's work. At noon each horse is fed with half a peck of oats. At night chopped feed is given. This is composed of sheaf oats or rye straw passed through a straw-cutter, and then, when wet, ground oats and corn and bran is mixed up with it. A peck and a half of this is given to each horse. In addition to the chopped feed the rack is supplied with eight or nine pounds of bright timothy hay, this being the total amount of hay that is fed. And, perhaps, of this supply, the horse will not eat more than five pounds during the night, finishing up the balance the next day.

About once a week a peck of oil-cake meal is mixed up with the chopped feed, being equal to about a third of a pint to a horse. This promotes the uniform good condition of the animals. And if at any time the urine is cloudy and thickened, a tablespoonful of pulverized resin mixed up with chopped feed is given him. This acts upon the kidneys, and the difficulty is at once removed.

The horses are freely given what water they want as they come in from their work, unless they are "green," and then water or feed is not given until they are thoroughly cool.

A very marked feature connected with the stables is that the air is so sweet and fresh. And probably this is owing to the fact that scarcely ever any urinating takes place in the several stables, and that the saturated sawdust and shavings are removed from the stables every third day.

To Know the Age of a Horse.

The colt is born with 12 grinders; when four front teeth have made their appearance the colt is 12 days old, and when the next four come forth it is four weeks old. When the corner teeth appear the colt is eight months old; when the latter have attained to the hight of the front teeth he is one year old. The two-year-old colt has the kernel (the dark substance in the middle of the tooth's crown) ground out of all its front teeth. The next four teeth are shifted in the fourth year, and the corner teeth in the fifth. At six years the kernel is worn out of the lower middle front teeth, and the bridle teeth have now attained to their full growth At seven years a hook has been formed in the corner teeth of the upper jaw, the kernel of the teeth next at the middle fronts is worn out, and the bridle teeth begin to wear off. At eight years of age the kernel is worn out of all the lower front teeth, and begins to decrease in the middle upper front. In the ninth year the kernel has wholly disappeared from the upper middle front teeth, the hook on the corner teeth has increased in size, and the bridle teeth lose their points. In the tenth year the kernel is worn out of the teeth next to the middle front of the upper jaw; and in the eleventh year the kernel has entirely vanished from the corner teeth of the same jaw. At 12 years old the crown of all the front teeth in the lower jaw has become triangular, and the bridle teeth are much worn down. As the horse advances in age the gums shrink away from the teeth, which consequently receive a long narrow appearance, and their kernels have become metamorphosed into a darkish point, gray hairs increase in the forehead, over the eyes, and the chin resumes the form of an angle.—*Journal of the Farm.*

A Fast Yacht.—Buffalo has a new steel built steam yacht, only 80 feet long, 10 feet beam, which runs at the rate of 20 miles an hour.

Perpetual Ink for Tombstones, Etc.—Pitch, eleven pounds; lampblack, one pound; turpentine sufficient; mix with heat.

Nurserymen.

1865. 1875

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	28	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	150	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	10	—	Fertile de Fallien	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,

P. O. Box, 722. 516 Battery Street.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus)
Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.

November, 1875.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Frutt Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgeau and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Lulsante.

Chestnut: Marron de Lyon and Combale.

Walnut: Præparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

BLUE GUM TREES.

400,000 For Sale. Price from $10 to $45 per 1,000. Also a fine stock of Ornamental Trees, Etc.

Main Depot, 118 East 12th street, Oakland. Branch Depot, Market street, opposite new City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

BAILEY & CO.,

Box 80, Oakland, Cal.

FOR SALE—BLUE GUM TREES.

The undersigned has the pleasure of announcing to those contemplating planting largely this season, the nursery stock of the well known Gum Tree Farm, at $15 per thousand, nursery price. The young stock is extensive, ranging in hight from 8 inches to 1½ feet, specially grown for Forest Culture. Address, ISAAC COLLINS, Haywood, Alameda Co., Cal. Nursery situated on Redwood road, 1½ miles from Haywood.

ROSES 700 SUPERB VARIETIES ROSES. Half a Million Greenhouse Plants. Mailing Plants a Specialty. Illustrated Catalogue Free. E. Y. TEAS & CO. Richmond Ind.

E. S. LEE & CO'S

Illustrated and Descriptive Circular of

WATERS'

Improved Tree Pruner

For 1876,

Will be mailed free to applicants. We offer large discounts to Jobbers and Hardware Dealers. Receives first premium at all fairs where shown.

Price of 4 ft. pole.....$2 50
" 6 ft. pole..... 2.75
" 8 ft. pole..... 3.00
" 10 ft. pole..... 3.25

Manufactured only in Rochester, N. Y.

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes. They *"sow like a charm;" no packing* of seed in the hopper, *no crushing* it, *no pausing* or *waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, *no "skips," no noise, no equal!* The Double Wheel Hoe works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable Combined Machine possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our New Horse Hoe, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. *We must have a Live Agent in Every Town.*

W. R. Strong, Seedsman. Established 1857. 1876. Robt. Williamson, Nurseryman, Established 1865.

W. R. STRONG & CO.

SEEDS. TREES.

San Francisco Office, 418 & 420 Clay Street. Sacramento Office, 8 & 10 J Street.

Nursery Grounds, Sacramento County.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, - - - W. R. Strong & Co.
House in San Francisco, - - - Strong & Williamson.

P. S. Alfalfa, Chile grown, 7 to 11c; California, 11 to 15c, as per quantity and grade Guaranteed fresh and genuine.

Seedsmen.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds,
Trees, Shrubs, Flowering Shrubs,
and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,
607 Sansome St., San Francisco.

I have founded my business on the belief that the public are anxious to get their seed directly from the grower, and I therefore offer FREE to every man and woman in the United States who cultivates a farm, tills a vegetable garden, or plants a flower garden, my large Illustrated Catalogue of Vegetable and Flower Seeds for 1876; it contains, in addition to the choicest kinds produced in Europe, one hundred and fifty varieties of vegetable seed grown on my four seed farms. Customers of last season need not write for it. As the original introducer of the Hubbard, Marblehead and Butman Squashes Phinney's Melon, the Marblehead Cabbages, and a score of other new vegetables, I solicit your patronage. All seed sold under three warrants. A hundred thousand catalogues will be issued and sent out the first of January.

JAS. J. H. GREGORY, Marblehead, Mass.

MAILED FREE FLORAL GUIDE

Contains over 1,200 varieties Vegetable and Flower Seeds. COLORED PLATES. Elegant wood-cuts of vegetables and flowers. Handsomest Guide Published! Send for it.

DETROIT SEED CO., Detroit, Mich.

ALL ABOUT GARDENING

For Home Use and for Market, in Root's Garden Manual—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

Illustrated Catalogue free on application.

John Saul's Catalogue of New, Rare and

Beautiful Plants for Spring of 1876, will be ready in February, with a colored plate. Many beautiful new plants are offered—all at very low rates. Free to all my customers; to others, price 25 cents. A plain copy to all applicants free. Now ready, catalogue of Garden and Flower Seeds, Fruit and Ornamental Trees. Washington City, D. C.

GOOD SEEDS

Grown with care and painstaking, from selected stocks. ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill.

FARMERS, GET THE BEST!

WHITE EXCELSIOR OATS. Average yield, 80 bushels to the acre. Weighs 40 pounds per bushel. Propagated and for sale only by the undersigned. One-quarter bushel, $2; one-half bushel, $3.50; per bushel $6.50; two bushels or more, $6 per bushel. Bags free Send money by P. O. order or registered letter. Sample post-paid for three stamps. Address

WM. M. KENTON,
Lock Box 532. Jackson, Mich.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

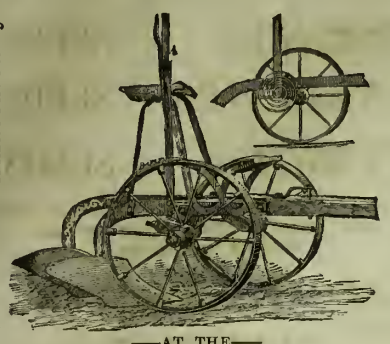
Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

Agricultural Articles.

OAKLAND GANG PLOW

Pat. and Manufactured by



HENRY N. DALTON.

—AT THE—

PACHECO

Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axis, turning the latter so that the plow may work to a depth of nine inches into the ground, or be raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON.

Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

American Chief Gang Plow.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

Miscellaneous Notices.

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 45 Cal. Market S.F

THE ONLY RELIABLE

STRAW BURNING ENGINES.

RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874, re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength and power will surpass anything ever before invented. They are unquestionably the best engine in the world. They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the larges farmers and best threshers in different parts of the State, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co., as my sole agents for the manufacture and sale of my straw burning engines on the Pacific coast, and all orders should be addressed to them.

San Francisco, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials and all other information, to our office, 108 and 110 Front street, San Francisco, and corner Second and J streets, Sacramento.

MARCUS C. HAWLEY & CO.

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow. Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

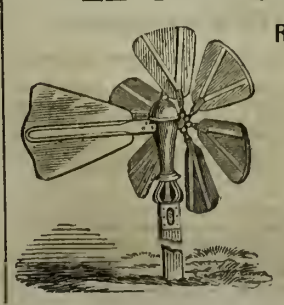
"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow	$85 00	Extra Shares—No. 1	$3 00	Landsides for single Plows	$2 50
No. 2 " " " "	90 00	" " No. 2	3 50	" " Gang Plows	1 50

All kinds of casting done on short notice.

San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

REMINGTON SEWING MACHINE.

Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel. S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord	J. REGENSBURGER.....S. F.
J. VOLLMAR .....S. F.	A. W. THOMPSON, Petaluma
J. D. BLANCHAR.....Napa	F. A. KIMBALL....San Diego
C. MITCHELL GRANT.....S. F.	I. G. GARDNER.....S. F.

G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street. S. F.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,

San Francisco.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

Our Combined WHOLESALE List of

EVERYTHING

FOR THE

GARDEN!

(Seeds, Plants, Florists' Requisites, etc.)

For the TRADE ONLY, mailed free on application.

Peter Henderson & Co.

35 Cortlandt Street,

NEW YORK.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

THE PACIFIC RURAL PRESS
For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the PRESS MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the RURAL and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the RURAL PRESS may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the RURAL PRESS for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our HOME CIRCLE department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old, boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the RURAL will be cared for in our GOOD HEALTH, USEFUL INFORMATION and DOMESTIC ECONOMY columns. Our GENERAL NEWS ITEMS, NEW INVENTIONS, SCIENTIFIC and MECHANICAL MISCELLANY articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the RURAL PRESS will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the RURAL PRESS of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the PACIFIC RURAL PRESS will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

We Prepay the Postage

On all papers sent to subscribers in the United States.

SUBSCRIPTION RATES, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers,

No. 224 Sansome street, S. F.

1845. CHARTER PERPETUAL. 1876.

Economy, Security.

Mutual Benefit Life Insurance Company,

NEWARK, N. J.

Assets, January 1st, 1876, - - - $31,085,011 11

LEWIS C. GROVER, Pres't. JAMES B. PEARSON, Vice-Pres't

EDWARD A. STRONG, Sec'y. BENJ. C. MILLER, Treas. B. J. MILLER, Actuary.

The following is a summary of the business of this Company, from May 1, 1845:

Total Receipts,	$81,149,507 76
Paid Losses and Endowments,	19,284,541 48
" Dividends or Return Premiums,	19,224,524 15
" Surrendered Policies,	4,284,344 82
" Expenses—Management, Commissions, Taxes, etc.,	8,167,913 05
The Ratios are:—	
Expenses, (excluding taxes,)	8.60 per cent.

These results are more favorable to the Insured than those presented by any Company in the World.

ALL KINDS OF APPROVED POLICIES ISSUED.

☞Dividends paid annually, or they can be applied on the Accelerative Endowment Plan, as ORIGINATED BY THIS COMPANY, to which particular attention is called.

ACCELERATIVE ENDOWMENT PLAN.

The plan is intended to meet the wants of those who wish protection for their dependents in case of premature death, and at the same time make a wise provision for themselves in the event of surviving the productive period of life.

The plan proposes that instead of using dividends in reduction of the annual premium, the insured may, at his discretion, pay his premium in full in cash, and surrender his dividends to the company. In consideration of this surrender, the company will agree to pay the sum assured when the policy holder shall have attained a certain age, or at his previous death, instead of at death only, thus enabling him to procure an Endowment Policy at the usual rates charged for policies payable at death only.

If the policy is already an Endowment, payable at a given age or previous death, the surrender of the dividend will enable the company to agree to pay the policy at a still younger age.

Advantages of the Accelerative Endowment Plan

Over any other yet offered to the public, will be apparent when the following features are considered:

It can be applied to any policy, whether "Life" or "Endowment," to old business as well as new, where there is no premium-loan, or where the existing premium-loan shall be paid off.

It enables one to obtain an "Endowment" policy at the usual "Life" rates.

The expenses incident to this form of "Endowment" insurance being no greater than in case of "Life" policies, its superiority to the old style of Endowment insurance will be readily perceived.

It not only has the effect of constantly reducing the age at which the company will agree to pay the policy, but also, every dividend so applied becomes itself the source of future surplus, thus causing the dividends to increase much more rapidly from year to year than would be the case if they were used in payment of the annual premiums.

The assured can, in any year, apply his dividend in payment of premium, and allow the time at which the policy matures to remain as at the previous year's settlement.

As each dividend is surrendered, the company will make a positive agreement as to the time at which the policy will be paid, and the amount payable at such time.

If at any time the assured becomes disappointed or dissatisfied with the plan, he is at liberty to use his future dividends in payment of premium, and to retain all the advantages accruing from the surrender of past dividends.

If at any time the party should be unable or unwilling to continue payment of premiums, the company will, within three months from the date of lapse, allow the equitable value of the policy in paid-up insurance.

☞**The Mutual Benefit Life Insurance Company issues Policies insuring the lives of healthy persons residing in any part of the United States.**

JAMES MUNSELL, Jr., Agent of Insured,

And Acting Agent for persons desiring Life Insurance,

224 Sansome Street, - - - - - San Francisco.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks. PIGEONS. RABBITS.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address **M. EYRE, Napa, Cal.**

Please enclose stamp.

Thanks for Prompt Attention.

STOCKTON, June 26, 1875.

Messrs. Dewey & Co., S. F.:—

I have received the patent for my invention in wagon brakes, which you prosecuted for me; patented May 11, 1875—No. 163,046. Thanks to you for your prompt attention to the case; you will hereafter be my attorneys in such cases. I recommend all inventors on the Pacific coast to give you a call, which I think they will never have any cause to regret. Very truly yours,

GEO. G. BUCKLAND,
Stockton, Cal.

BAY NURSERY,

OAKLAND, CAL.

Lock Box, - - - 331

JAMES HUTCHISON, Proprietor.

[Established 1852.]

Has for sale an Immense Stock of EVERGREEN TREES, SHRUBS and FLOWERING PLANTS at GREATLY REDUCED PRICES. Monterey Cypress Seedlings from two and a half to five dollars per hundred. Two and three year plants two to six feet, twelve and a half to twenty-two dollars per hundred. Chinese Arbor Vitæ, twelve to sixteen inches, eight dollars per hundred.

100,000 BLUE GUM TREES

FOR SALE.

Grown in open ground and of most excellent quality—FAR SUPERIOR TO ANY BOX GROWN PLANTS—offered at Greatly Reduced Rates.

500,000 SEEDLINGS AND BOX GROWN TREES

In fine order, at ten and fifteen dollars per thousand. All trees delivered on wharf in San Francisco at nursery rates. We wish it distinctly understood our trees for forest planting are RESPONSIBLE NURSERY STOCK. Address

W. A. T. STRATTON,
PACIFIC FOREST TREE NURSERIES,
Petaluma, Cal.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camellias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

ONE of our most valued exchanges is the PACIFIC RURAL PRESS, published by Dewey & Co., San Francisco, California. Every number contains a large amount of general news from the far west, besides much valuable information in the way of Grange news.—*The Farmer's Friend, Mechanicsburg, Pa.*

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,

SEEDSMAN,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, FEBRUARY 26, 1876. [Number 9.

Big Box, Little Box, Bandbox, Etc.

Our course of visiting among the city establishments which minister to the needs of the agriculturist, brought us one day last week to the large concern owned by George W. Swan & Co., and known as the

Union Box Factory.

As our readers have learned from advertisements which have appeared in the PRESS, the location of the Union box factory is 114 to 124 Spear street, near the foot of Market street, and consequently near the ferry landing. Four water lots are covered with the buildings and lumber yards of the factory. In the lumber yard one sees the timher just as it comes from the sawmills of Shoal Water bay. It is spruce and is all selected and sawed especially for box work. First, a narrow slat is taken off the log, then inch boards are taken off nntil the log is squared. Then the stick is cut into heavy planks from three to twelve inches thick, until the heart piece is reached. The heart of the log cannot be nsed. Spruce is chosen for box lumber because no taste is imparted to any snbstance which is packed in it, and bccause it is so soft that nails will not split it.

"Cut Stuff."

The great point in the Union box factory, which makes its work of importance to farmers, nurserymen and fruit growers, lies in the succoss which has been attained in the production and nse of "cut stnff." First, let us tell what "cut stuff" is. These spruce planks which we mentioned above are first put through a large planing machine, then over a circular saw, which leaves them in thick pieces. These pieces are plunged into a steam bath and boiled in a chemical solution, which, at the same time, softens the wood and toughens the fiber. The wood is then "ready for the knife." The "knife" is a machine a la guillotine, with a blade weighing 680 pounds and 12 feet long. The piece of wood to be guillotined is put upon the bed of the machine and is "fed" under the knife by a "patent feed" contrivance of Swan & Co.'s invention. The feed may be adjusted so that cuttings from the stick may be, in width, 32 to the inch or 4 to the inch as is desired. Thns, it is seen that a very thin and smooth alice is removed every time the knife descends. When it is said that formerly all of this kind of stnff was made by the slow process of sawing, the advantage of the cutting method will be appreciated.

One great nse which is made of this cut stnff is for "picture backs," and picture back is the name for that thin wood which one sees on the back of a picture or mirror. Formerly there was from $20,000 to $30,000 worth of sawed picture back imported into California every year. Now this importation has almost ceased, its place being snpplied by the "cut stuff."

Cut Stuff in Agriculture.

The advantage of cut stnff to the farmer, the nurseryman and fruit grower, is of course the thing of most interest to us and to our readers. It may be used in several ways, and it can be made so cheaply that it bids fair to take the place of every material which is now employed in the mannfacture of the great variety of packages which are used to send fancy and fruit products to the markets.

But first we must describe a little operation which follows the knife in making the "cut stuff" readily useful. It is the "scoring" process. "Scoring" is done by cutting crosswise of the fiber and about half way through it. When a piece of "cut stuff" ia "scored" it can be taken in the hand and folded, and there will be an angle or corner every place there is a score. Thus if a piece of cut stuff 16 inches long is scored four times at equal distances, it will readily fold until the ends meet and there will be fonr aides and four corners—in other words, it will form the sides of a four inch box, and the box is made more quickly than one conld fold a piece of paper into a square, because the scoring makes the fold come in the right place every time. This is the object of "scoring." It is done by a machine, and a machine is so fixed that the knife and scoring apparatus work at the same time, and by the time a piece of cut stuff leaves the parent stick, it is already cut and scored—in fact, all ready to be folded into the sides of a box. Thns it appears how quickly and cheaply the material can be prepared. Now we are ready to make the application and show

The Uses of Cut Stuff.

The grower of small fruit, berries, etc., has need of a cheap package in which to send his product to the market. If he try to make these packages at home without machinery they will cost him as much as he can get for his berries, etc. If he buys them ready made up in the city, they are very bulky and cost him heavily for freight, because they take up so much room. The Union box factory is doing what seems to us a good service to the producer of small fruits, etc., by selling them this cut stuff ready scored, so that it can be folded and fastened together with three or four tacks after it reaches the ranch of the fruit grower. They cut and score it the right length, and then, as the pieces are still flat, the material for a thousand boxes will not occupy as much space as a hundred after they are folded and fastened in shape. It requires almost no skill to make the boxes from the scored stuff; a boy or a Chinaman can learn the knack of it in five minutes.

LOWER YELLOWSTONE FALLS.

The boxes can be prepared and packed away for use on a rainy day or when there is lack of other work for the hands. Berry box stuff of this character all ready to be folded into one pound boxes is sold at the rate of $5 for material for 1,000 boxes. This form of the boxes is called "in the shook." If the fruit grower buys his boxes ready put together they cost him $10 per thousand, besides the extra freight charge for the large space they occupy. We believe that the work of finishing the boxes can be done far more cheaply on the ranch than in the city, and, if the producer makes his boxes before the busy time, he can count the employment of his leisure time so much clear gain. The wise producer will increase his profits by all such economical turns as this.

There are a hundred uses to which "cut stuff" is put in the manufacture of boxes, vegetable caddies, lard caddies, spice boxes—in short, it is being put to almost all the usea for which sawed stuff or pasteboard has been employed. These are its commercial uses, and for this large manufacturing establishments draw upon it heavily. We speak more especially of agricultural uses. From it a most cheap and handy

Propagating Box

Can be made in a moment's time. There is a wide need among those who propagate plants from the seed and afterwards transfer the plants to the open ground, for a cheap box, which will hold together a little soil so that the change can be made without disturbing the roots of the young plant. Now, if the seed planter take a piece of this cut stuff, scored at distances of four or five inches, he can slit off a strip with his knife (for it is all of the straightest grain), fold it together, tie a string around it, and he has a square rim which will hold the soil until the plant is ready to go to the ground. It can be slid from the propagating table on to a board and carried to its new place. To show how cheap a propagating box can be made in this way, we can state that the material for eight boxes is sold for one cent.

Bandboxes, Etc.

It would have given one of our grandmothers a shock to think of starting out on a journey with a wooden bandbox. But it has come to this in this degenerate day. And not only wooden bandboxes, but collar boxes, patent medicine boxes, indeed almost every package formerly made of pasteboard, is now made of this thin "cut stuff" at the same price; and the wooden box is infinitely preferable because of its strength amd firmness.

Althongh the Union box factory is doing an immense business in this thin box manufacture, their business is still extending in all kinds of strong box making; butter boxes, ooin boxes, large fruit packages, in short everything which producers need in their line of manufacture.

Prosperity in Placer County.

We received a call last week from Mr. N. Mertes, of Roseville, Placer county. Roseville is at the junction of the Oregon and Central Pacific railroads, in the center of a fine farming country. From a mile to a mile and a half below Roseville the bottom land of Dry creek spreads out into a fine fertile conntry, covered with small farms, orchards and vineyards. The land after leaving the bottom slopes gently to the north and south, and a belt of timber on the north side protects the farms from the hard dry north winds which occasionally blow.

Ten years ago, Mr. Mertes informs us, the section thereahouts was comparatively barren, but it is now in the highest state of cultivation. The wheat crops average generally from 25 to 35 bushels to the acre, and the barley more. The farmers thereabouts have never had a failure of crops since 1863, even in the driest seasons. They nearly all practice summer fallowing, and with great success. Just now the early sown grain looks splendidly. The ground plowed this winter looks well, but not so good, as there has been so mnch cold and wet weather. They will have good average crops, although hundreds of acres are not yet in, on account of the heavy rains. They find summer fallowing to be very advantageous, and now most of the residents in the vicinity practice it. There are probably from 50 to 70 houses at Roseville, and most of the farms thereabouts are comparatively small ones for California. The facilities for handling grain are good, and the railroad affords ready means of transportation. The country is rather peculiar to this State from the unfailing regularity of good crops. Mr. Mertes says they get a little more rain than falls at Sacramento.

The Yellowstone Falls.

At the head of the grand canon is the lower fall of the Yellowstone, which is 397 feet in hight; at the foot of the fall the depth of the canon is 675 feet. The center of attraction is the lower fall, which is illustrated on this page. Prof. Hayden, in his "Geological Survey of the Territories," thus describes it:

"The river suddenly narrows to a width of only 100 feet and rushes over a ledge of trachyte, falling 397 feet to the hottom of the canon. The water at the edge of the fall is very deep and of a deep green color. Huge boulders thrown in are carried by the force of the current far out from the edge of the fall. When we approach the brink and look over into the abyss we begin to realize the littleness of man when in the presence of nature's grand masterpieces. Down, down goes the whirling mass, battling and writhing as the water dashes against the rocks with a noise like a discharge of artillery. Here and there a resisting rock is met with and the water rebounds, broken into myriads of drops, which throw back to us the sunlight resolved into its primitive colors. The bottom of the canon reached, the immense mass of water seems to dissolve itself into spray, and then recovering, it flows down the gorge an emerald-green stream, dashed with patches of white, beating with furious waves the rocky walls that imprison it. Taken in connection with the varied tints of the canon itself, red, yellow, orange, white, the dark-green pines fringing the top, and the bright green of the spray-nourished moss on the sides of the fall, we have a picture of almost unequaled magnificence and grandeur. It is a scene of which one never tires and in the description of which language fails."

CORRESPONDENCE.

Around Santa Barbara.

EDITORS PRESS:—Having spent some two weeks in this delightful locality, during which time I have visited and talked with most of the farmers within a radius of seven or eight miles, I will give you a few notes of my observations. Of Santa Barbara city it is useless for me to say anything, it having been so often described by those much better qualified to do justice to the subject.

The Mesa.

My first visit was to the Mesa, a high table land extending some three miles west of Santa Barbara city. The Mesa is all excellent farming lands—the soil being a rich, dark, sandy loam. There are several fine farms on the Mesa, prominent among which are those of Capt. Low, Mr. Mayhew, Mr. Williams and Mr. Olliver. Capt. Low has a very fine residence, handsomely situated with a magnificent view of the ocean. B. B. Williams & Co. have their nursery, the "Island View," here—the name Island View being a very appropriate one, as from this point a fine view is obtained of the Santa Rosa island. Mr. Mayhew has a very handsome residence, commanding a fine view of the ocean and islands. The grounds are handsomely laid out and ornamented with shrubbery and flowers. He has a large and apparently well kept and cultivated orchard. The grain here is looking exceedingly fine and the prospects of a large crop were never better.

Montecito Valley.

To the east of Santa Barbara some four miles lies the beautiful Montecito valley, so called, though it is not, strictly speaking, a valley, but a succession of low hills with slopes of table land extending back from the ocean some two miles to the base of the mountains, which rise abruptly several thousand feet in hight, rough, rocky and precipitous, their sides thickly covered with chaparral. Standing at the base of the mountains and looking down the slopes to and far out on the ocean, the Santa Rosa, Santa Cruz and other islands dimly outlined in the distance, the view is magnificent and enchanting in the extreme. The farm houses are so thickly dotted around as to give the appearance of a village. The farms are generally small and devoted principally to fruit culture; the orchards consisting chiefly of tropical and semi-tropical fruits, nuts, etc., all of which seem to grow here in great perfection.

Seven years ago Montecito was almost a wilderness, the land covered with timber, rocks and brush, except an occasional small patch occupied by some of the native Spanish population. Now, magnificent residences, surrounded with groves of oranges, lemons, limes, citrons, olives, English walnuts, almonds, etc., with an endless variety of temperate climate fruits, ornamental trees and shrubbery, greet the eye on every side. One can scarcely realize that so great a change has been wrought in so short a time.

Prominent among the beautiful homesteads are those of Messrs. Stoddard & Newbold, Col. Williams, Col. Bond, Col. Haynes, Col. Dinsmore, Mr. Jacques, Mr. Eddy and Judge Hall. For climate, fertility of soil and beauty of scenery, Montecito can scarcely be equalled, and certainly not surpassed by any spot on the Pacific coast.

Among other places of interest in Montecito valley we may mention

Dana B. Clark's Nursery.

It is situated about four miles from Santa Barbara. His stock of trees consists of semi-tropical and temperate climate varieties of fruit and ornamental trees. Mr. Clark has given special attention to the former, and, judging from the fine appearance of his trees, we should say that he has been quite successful in their culture. His bananas are some of them fruiting. The guava, of which he has a large stock, appears to do well. This tree is of small size, growing from six to 10 feet high. It is evergreen. It is inclined to take the pyramidal form, and as the leaves are many of them beautifully variegated, it makes a nice ornamental tree. But its principal value is the fruit, which makes a most delicious jelly. In shape the fruit is like a pear; the pulpy part is not so hard as a pear, but yet firmer than a strawberry. It has a reddish tinge like a strawberry, and a flavor peculiarly its own. It is a native of Central America and the Sandwich islands. In a few years we expect to see this tree largely planted.

The loquat, or Japanese plum, is another tree which promises to become a great favorite. It is evergreen and stands a considerable amount of cold. The foliage is of a deep dark green. The leaves are from six to 12 inches long by two and a half broad, sharp pointed and serrated slightly. It attains a hight of 15 feet or more, and its symmetrical form and beautiful green foliage make it highly ornamental. The fruit is highly prized both for dessert and preserving, and as it ripens in March when fruit is scarce, it is quite a desideratum. The limes, lemons, oranges and citrons of various kinds are all in splendid condition. We notice several of his Mandarin oranges having the ripe fruit, though only two years from the bud. A large arbor in the middle of the grounds answers the double purpose of a packing house and office in the selling season, and a summer house all the year round. Its walls are formed of a net-work of passion vines, periwinkle, Australian pea, etc.

The rugged and wide branching old sycamores, along the bank of the stream that runs through the nursery, contrast strongly with the cultivated trees a little distance off. In a beautiful grotto, under one of these trees, we were told that not long since the wedding festival of a late foreman had been held, and certainly the place is quite calculated to excite poetic emotions.

Mr. Clark purchased his place five years ago; it was all uncultivated land when he purchased it; now, in addition to his nursery, he has 10 acres of olives in bearing, also a fine fruit orchard and all the different varieties of berries, etc.

Mr. Packard's Place.

I was hospitably entertained by Mr. G. C. Packard, with whom I passed a very pleasant evening. Mr. P. having lived several years in Montecito, was able to give me many interesting facts connected with its first settlement by Americans, the rapid and altogether astonishing increase in the value of lands, etc. Adjoining Mr. P.'s place is the old Spanish ranch, now owned by Mr. Sarver, on which grew the celebrated big grapevine, and on which is now growing the daughter vine, almost as large as the old one. I spent a couple of hours with Mr. Packard in looking over his vineyard and orchard, and examining his fowls, of which he has some very fine imported and improved breeds. I noticed among his stock some very fine Dark Brahmas, White Leghorns, Black and Buff Cochins, Golden Polands, Black Spanish and Hondans.

As an illustration of the climate, soil, etc., of Montecito, Mr. Packard informed me that for two successive years he had a strawberry short-cake for dinner every Sunday. Truly may Montecito be called the garden spot of the Pacific coast.

Mr. Packard speaks in terms of highest praise of the RURAL PRESS, for which he is an old subscriber. He says he could not do without the PRESS, and regards the money paid for it as the best investment a farmer can make, it having always paid him a large return in practical information that has greatly benefited him.

My next visit will be to La Patera, of which I hear some wonderful stories; thence to Lompoc, Santa Maria and Guadalupe. Before taking leave of Santa Barbara I must mention a radish grown by Messrs. Wrench & Spencer, nurserymen, which strikes me as being some radish and hard to beat; but I will give the dimensions and see if any one can beat it. Variety, White China; length, three feet; circumference, three feet and four inches; weight, over 40 pounds; age, six months. How is that for a radish? MCA.

Santa Barbara, Feb. 8th, 1876.

A Mill that Beats Minnesota.

EDITORS PRESS:—Knowing your decided Occidental tendencies, I was not a little surprised to note in one of your recent issues that Minneapolis, Minnesota, is credited with having the largest grist mill in the United States, one that *could* make a thousand barrels of flour in a day, and ex-Governor Washburne, the proprietor, as being the Napoleonic flour maker of America. This statement, though current with Eastern, as also our California press, admits of doubt and is questioned, without a wish, however, of detracting from the glory or renown (if such there is) of Minneapolis as a manufacturing center, or abating in the least from the eclat of Mr. Washburne's rating as a leading miller. I claim, and propose to prove, that our little town of South Vallejo, unknown to fame, poets or politicians, is justly entitled to wear the *floury* crown.

The Starr Mills,

Built upon piles, cover an area of nearly two acres. They have three water fronts, at two of which ships of the largest class receive full cargoes of flour into their holds, directly from the grinding floors. At the third, coasters, schooners and barges receive or discharge their freight. Three radial tracks connecting with the main railroad are laid through different parts of the building. Cars of grain are received, and flour loaded with slight cost for handling.

A Corlis and Putnam engine, side by side, aggregating 450 horse-power, furnish the motive force for 14 runs of four feet French burrs, and all the complicated machinery required for making extra flour. Day and night for 144 hours of each and every week, month after month, do the tireless servants (engines) keep things moving, converting grain into flour at the rate of over 40 barrels per hour. To be definite, and to show what is done, rather than what may be, for with mills, as with men, the results are often widely different, I give the results of the last three months as shown by books. This showing is below rather than above that for the months preceding. The yield was 78,105½ barrels, a daily average of over 1001½ barrels, and for the year, 312,422 barrels. Estimating four and one-half bushels of wheat to the barrel of flour (for extra flour five bushels are required) we have 1,405,899 bushels, the average yield of 93,727 acres. With such an array of figures, sustained and supported by results, is not the claim justly made of having *the* mill of this hemisphere, though it leads the great one of the Northwest by only one and one-third barrels per day?

The Bag Question.

The intimate relation between mills and grain, suggests the query while speaking of the one, as to the reason of the farmers of California continuing the use of sacks, when they have from time to time declared against it by resolutions in conventions, as well as privately. The adherence to a custom or usage which originated in the days of absolute monopoly, one which is telling so seriously upon the interests of producers, when by a concert of action they could be relieved from it, indicates a want of consideration of the question, as well as an appreciation of the magnitude of this direct tax upon their industries. By reference to the RURAL of the 29th January, 1876, page 73, it will be seen the average yearly requirements exceed fifteen million of sacks, which cost the grain growers of this State $2,200,000, which if equally apportioned would be $110 each. This is an expensive luxury, one that will ultimately work a reversion of the present waving grain fields into feeding grounds for wandering herds, as in the days of the first settlement by Americans. G. C. PEARSON.

South Vallejo, Feb. 15th.

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Hatching—Care of Young Chickens.

The hen should be set where no other fowl can disturb her—in a separate house or small yard, and supplied with grain and water, fresh every day. When first set she should be dusted with carbolic powder, and again so treated a few days before the eggs hatch. I use a box 13 inches square inside, with a door opening downward. Let the hen remain on the nest, shutting her in after the chicks commence to hatch, until the last one is twenty-four hours old; they require no food until the egg bag is absorbed. Remove the box to the side of coop prepared for hen and her brood; place the hen in the box and give her a good feed. Anoint the head of each chick, very sparingly, with the following ointment, which may be had at any drug store: mercurial ointment, one ounce; pure lard, two ounces; flour of sulphur, one-half ounce; crude petroleum, one-half ounce. By the time this is finished the hen will have satisfied her appetite, and a hard boiled egg may be crumbled and given to the chicks. Keep the hen in the coop all the time for a week, moving the coop to clean ground each day. Feed often and not too much at once; vary the food; give pure fresh water. Water exposed to the sun until it becomes stale or stagnant is a prolific source of disease. If not on a grass plot green food must be furnished. Meat and scraps from the table cut up fine, cornmeal mixed with milk or water, cornmeal baked and crumbled up, bread crumbs soaked in milk curd, bran and shorts mixed with water, and ground barley and middlings so mixed are all good. Fresh milk to drink makes the chicks thrive and grow, but it cannot always be had; but in every case the drinking water can be fresh and pure. When three or four days old they need grain to give healthy exercise to the gizzard. Coarse ground barley, cracked wheat and the coarse particles sifted from cornmeal can be given at the last feeding in the evening. Wheat and cracked corn used when they are ten days old. I repeat, vary the food; soft food during the day and grain the last in the evening. If no grass can be had cut up lettuce with a pair of scissors, or onion tops or cabbage. The oftener they are fed the better; but food should never be given in excess and allowed to be on the ground to be trampled on or become sour and a source of disease. When the chicks are a week old allow the hen to leave the coop during the sunny part of the day.

Very few hens refuse to hover their young sufficiently, but when this occurs I remove the chicks and place them under an artificial mother in a small yard 4x6 feet. If the young be observed standing with head drawn in and a sleepy, "dumpy" look, excrement adhering to the fluff, suggestive of diarrhea, the cause will generally be found to be cold or lice. Lack of green food will also produce diarrhea, but not the other signs. If the foregoing directions have been followed no lice will trouble them, and if neglected the lice can be gotten rid of by dusting the hen with carbolic powder and using the ointment on the heads of the young. They should be fed early in the morning on a small quantity of grain scattered after night to be eaten in the morning. Mixing all the food with milk is recommended where milk can be had, and a *small* quantity of meat should be given daily. A dry place is essential; dampness injures young fowls and causes many deaths. The hen should not be made to hover her chicks at night on the damp ground; and in rainy weather a board floor should be used in the coop. If possible, keep young and growing apart from adult fowls.

Carbolic Powder.

In answer to numerous inquiries it is stated that this is a preparation of some powder, I think whiting, impregnated with carbolic acid. It is made only at some chemical works where the refuse carbolic acid can be used. I import it from St. Louis. It costs 11 cents per pound, the package and freight to San Francisco about six cents and cartage, etc., makes its cost to me about 18 cents per pound. I furnish it to customers at 20 cents, put up in five pound packages. I formerly used sulphur and recommend it where the powder cannot be had; but care must be taken or it blinds the young and it does not in all cases kill the lice. During experiments I penned up a Brahma cock until he was literally covered with lice and one application of the carbolic powder removed every one of them. No matter how infested my fowls become—and in our dry climate, in summer, they often swarm with these pests—I find that the carbolic powder is a sure remedy. I use an old yeast powder box with holes punched in the lid, and "pepper" the fowls in among the feathers. A few ounces suffices for half a hundred fowls.

Another Poultry House.

EDITORS PRESS:—While reading Mr. Eyre's note in regard to poultry houses the thought occurred to me that I ought to send you the style of house I use, as I think it is the best I have ever seen. The original plan was published in the *American Agriculturist*, in 1871, I think. I have modified it somewhat, to suit my ideas and this climate.

The houses are built six feet wide by 16 feet long. The walls are two feet high and are covered with a pitch roof. The peak of roof is about six feet from the ground. The ends are built all of boards and are tight. The sides are of one by three strips, cut two feet long and nailed on about one inch apart, leaving a door of one foot wide in the center of each side.

Across each end I make my nest boxes. First, I nail down a board, 18 inches wide, fast to the sills, which are of three by four inch scantling. The nest-boxes are made 11x12 inches square, which gives six boxes in each end. They take up 12 inches of the 18-inch board; the other six inches is left for a gangway. On the inner edge of the 18-inch board is fastened a board eight inches wide and five and a half feet long, leaving a hole six inches wide for the hen to get in at.

The whole is covered over tight with boards from the upper edge of the eight-inch board to the top of the walls at the end, two feet from the ground, which gives a steep covering to prevent the chicks roosting on them. To get to the nests, I leave a door six inches wide and five feet long, that opens on the outside. The roofs are made of shakes. Two lengths make a side; the first length is nailed fast. The top length is nailed on separate strips and hinged over the peak, so that they can be raised up to get at the chicks on the roost. The roosts are made of one by four inch strips 12 feet long, resting on pieces laid across from plate to plate. There are two or three roosts. One of these houses accommodates from 50 to 60 fowls. They are light, and I can move one of them with a lever and six small rollers in five minutes. I move mine on to fresh ground once a week. All the nest boxes, roosts, etc., are fastened in with cloats, pins, etc., so that they can be taken out and painted with coal oil. I paint my nest boxes about twice a year. The roosts, in hot weather, are painted once a week, and this is all I have to do to keep my fowls entirely free from vermin and comparatively healthy. My chicks, since I have learned how to take care of them, pay me about double what I have to pay out for grain to feed them. I mean it takes about one half the money I get for eggs to buy feed. S. WHITMORE.

San Diego, Feb. 9th, 1876.

Bronze Turkeys.

MR. EYRE—*Sir:* Received your circular. You wanted to know the exact age of my bronze gobbler. The eggs were set the 2d day of May. When last weighed he weighed over 40 pounds. He will not weigh that now because he runs with a flock of 21 turkey hens, and I don't feed him, in order to lessen his weight. His color is a very dark brownish grey, very rich plumage and heavy low build. Of my half-breed turkeys of last year, the gobblers weighed 20 pounds; the hens, 10, 12 and 14 pounds. I sold them for $4.50 to $6. I have not thought yet of selling my gobbler. I can get $25 at the door.

MRS. J. E. GAFFNEY.

Galt, Sacramento Co., Feb. 4th, 1876.

CRANE chains should once in a while be taken off and thrown into a furnace until red hot, then brought out and be kept in a compact pile and permitted to cool slowly. Better still, let them remain in a furnace after coming to a heat and then to cool off with the furnace. Where a furnace can not be had for the purpose, they can be heated in a large wood fire and then be permitted to cool as slowly as the fire was dying. Being thus annealed they are safe.—*Am. Manufacturer.*

Bees.

Bee Keepers.

Introducing Queens.

The annual convention of the North-Eastern Bee Keepers' Association was recently held in Rome, New York. Among the proceedings we find an interesting paper on "Introducing Queens" by Charles Dodent, an experienced bee keeper of Hamilton, Illinois. We quote as follows:

Since it is now proved that bees, like the other animals of the farm, can be improved by importing foreign breeds, the question, "how to introduce queens safely," arises and becomes an indispensable knowledge to bee keepers. Many a good and costly queen has been lost or impaired by lack of experience in introducing. It is to guard some novice bee keepers against such losses that I will try to give my experience on this topic. The introducing of queens when they arrive from Italy presents more difficulty than in all other circumstances. The queens, at their arrival, have been for three to five weeks confined in their small boxes, with bodies of worker bees that died with dysentery. Some of these bodies are rotten; often some are moldy; the honey sometimes begins to sour, or it is of inferior grade, gathered from heath of chesnut, or from some other plant giving honey of bad smell. The queens become thoroughly impregnated with these unpleasant odors. No wonder if the bees, which are so clean in their habits, whose hives smell so good, are ill disposed to accept these foreigners, in place of their beloved mothers. Yet, by complying with the instincts of the bees, we have succeeded in introducing our imported queens, with nearly as much success as with our home-bred queens, our losses not having exceeded five or six, on about 150 imported queens introduced in our apiary last season. No doubt a loss amounting to four per cent. will seem, to the experienced bee keeper, heavier than the regular percentage of the losses in introducing home-bred queens; but we have to remember that some of these queens died from disease caused by the fatigue of their long journey.

The Proper Time.

An indispensable precaution is to introduce the queen as soon as the queen to be replaced has been taken from among the bees. If the bees hunt, during a few hours, for their queen without finding her, it often happens that some worker bees are so anxious to have the queen replaced, as to raise queen cells. In such case the safe introduction of the queen is doubtful. Sometimes the queen will not be tolerated at first, but the bees will raise a queen of their own, and afterwards a few bees will swarm with the foreign queen, if the weather is convenient, or the queen will be ill used by the bees, maimed, even killed, if the colony is too feeble to swarm, or if the weather is unfavorable for swarming. To cage in her hive for some hours the queen to be replaced, can give the same bad results. But if you take the queen out of the hive, putting the foreign queen in the hive before the bees have remarked her absence, they will be unable to know the change, and your queen will have the best chances of being well received.

Precautions.

It is sometimes possible to let the queen go directly among the bees without any precaution, but as in so doing the most experienced can meet with unsuccess, it is more prudent to use some precautions, especially for costly queens For years we have introduced queens with water scented with peppermint. A few losses have deterred us from this *modus operandi*. This method is always successful with us in the honey season, if bees, combs and hives have been well soaked with scented water; but in time of scarcity of honey in the fields, it results sometimes in losses, and, according to my experience, it is to the presence of robbers in the hive that such losses ought to be attributed. It is impossible in time of scarcity to have a hive open for a few minutes without being surrounded with robbers, especially if there are some sweets to be gathered. To scent all the bees, the combs and the inside of the hive, it is necessary to put all out of the hive. The robbers are few at first, but they have all the time necessary to return to their hives and to bring with them their comrades before the hive is closed and the tranquility restored. As soon as the scented bees recover from their trouble they fight the robbers, and, too often, they mistake the new queen for a robber and kill her.

Guarding Against Robbers.

Whatever may be the method used to introduce queens, the greatest care should be taken to prevent robbers from entering the hive at the time when the queen is liberated. The necessary precautions are, therefore: First, to avoid letting the bees know that their queen is gone; second, to use some stratagem to let the bees believe that the queen introduced is their own queen; third, to avoid the invasion of the hive by robbers, when the queen is liberated. To fulfill these conditions, we search for the queen to be replaced, and as soon as she is removed, we put the queen to be introduced in a cage, between two combs, directly above the brood, taking care to put her cage against some sealed honey, so as to give her a chance of eating, in case that the bees would forget to nurse her. Then we close the hive, taking care to diminish the entrance, so as to help the bees against robbers. From 36 to 48 hours after, we open the hive, and without removing the cage, we take out one of its stoppers and put in its place a small piece of comb honey; then we close the hive. Our cages are made with a small piece of wide cloth, eight meshes to the inch, rolled on a bit of broom handle, with two bits of corn cobs for stoppers. When liberating the queens we act as quietly and as quickly as possible, so as to disturb the bees the least possible and to give robbers the least opportunity for entering the hive. While the bees gnaw the combs, the tranquility is restored in the hive and the queen walks quietly among the bees. As the queen, after such a trial, can be easily frightened, it is prudent to leave her undisturbed for several days. Usually, we do not look at our introduced queens before six or seven days after they are liberated. We can then ascertain whether they are laying and see if the bees have built queen cells. I know of a good many valuable queens being killed by the bees by the fault of their owners, who were too earnest to see if their queens had been accepted by the bees.

Sheep and Wool.

The Breeds of Sheep.

The *Live Stock Journal* says: The Leicesters are usually placed at the head of the long wool breeds, as being the finest in form and fleece, and also because it has been much used in crossing, for the improvement of the other varieties. The head is hornless, and rather long and narrow; ears thin, with spots of bluish tinge. The long, well-cut ear of the pure Leicester, with its sprightly backward inclination, is a distinguishing characteristic of the breed, as is also the prominent eye, with quiet and lively expression. The face and forehead must be bare of wool, though covered with a fine coat of hair—white, with a little inclination to a bluish tint. The body is straight, with ribs well sprung and barrel shaped; the pelt inclined to be thin; the wool exceedingly soft, fine, and lustrous, and should be uniform over the carcass. The extremities—muzzle and legs—are exceedingly fine, but the quarters are full and wide, with back broad and level. Indeed, the carcass of the true Leicester sheep is as near perfection in form as can be conceived possible.

The Cotswold, though of late years modified by the crosses of the Leicester blood, and, therefore, strongly resembling that breed, is somewhat coarser and longer in carcass, with a heavy fleece, which should be as lustrous, though not so fine as the Leicester. The head is larger, and must have a tuft of wool on the forehead, which the Leicester never has.

The Lincoln is as large as the Cotswold, though in other respects, as now bred, very strongly resembling the Leicester. The head is long, the face narrow and bare of wool, with white, fine hair and light bluish tint, as in the Leicester. They stand rather higher on the leg than the two varieties before mentioned, and the carcass is apt to be less symmetrical; but the fleece is longer and heavier, and, though not quite so fine as the Leicester, is unsurpassed in luster, and therefore commands the best prices in the markets. It is difficult to describe animals so as to enable a person to determine the pure bred from the mongrel; indeed the best judges are not always able to detect the presence of a light dash of inferior blood. One thing the producer may rely upon—that long-wool sheep peddled about the country at low prices are never pure-bred. Indeed, blooded stock of all sorts should be purchased of parties that are known as reputable purchasers—this is the only reliable security the purchaser can have that the animal purchased will turn out what it is represented to be.

The Southdown sheep has a broad, rather short, though exceedingly neat head; forehead covered with wool, and the face and legs with grey or brown hair. The fleece is rather short, of good felting quality, equal to half-blood merino, but superior for flannel, etc., and should be solid and compact, and of uniform quality throughout, without projecting hairs. The carcass should be straight, with well sprung ribs and broad, level back, having wide quarters, deep flank and well packed twist. This being held in higher esteem than any other breed for the production of superior mutton, the full and perfect development of carcass is deemed of the highest importance.

The Hampshire Downs are coarser in form and fleece, with black faces and legs.

The Shropshire Downs are a cross between the Southdowns and long-wools—a large breed, with long, coarse wool, in form resembling the Cotswold, with black faces and legs. In regard to this matter of the colors of the faces and legs, it is remarkable that while the Southdowns, which stand at the head of all these varieties, have, as before observed, brown or grey color in these parts, their crosses on other breeds will frequently show black faces and legs. When the object is to keep a flock for mutton, rams of this variety are found exceedingly profitable to cross on ewes of almost any other breed. But the nearer they go to the pure blood the better the mutton,

The Horse.

How Mr. Gibbon Trained His Colts.

Lardner Gibbon writes to the Commissioner of Agriculture concerning his method of training colts. The method is curious and interesting, if nothing more. He says:

On the 11th of December last I purchased two more colts, born 4th and 7th May, 1874—both from the same horse—their mothers sound brood mares of this county. The colts were weaned at seven months old, wintered on corn fodder and clover hay, with two quarts per day of corn meal, moistened with warm water, and a little salt. They ran out all winter in a 20-acre hilly lot of ground, with steep gravelly paths to water. At night they nestled together on a warm littered stable wooden floor, coats cleaned and feet trimmed.

In March, as soon as they began to get a little pasture, they were haltered and tied up in their stalls. In June they were bridled, surcingled, and cruppered. In two days' running loose the bit worked in the mouth and crupper at the root of the tail in such a way as to make them hold up their heads and do all the kicking natural to youth and inexperience. They were then taught to stand tied in this way for three hours each day for a week, with wagon harness, collars, breeching, and chain traces dangling about their hind legs sufficient to teach them patience.

In July they were driven double up and down hill; then hitched single to a horse rake, pulling hay together: then to a little cart, one ahead of the other, hauling light loads of hay to the barn, at which work they were prepared for the road as a tandem team; then put to a small garden plow, single and double. Sweating cleansed their bowels, gave them a fine appetite, and made them grow rapidly in size and strength.

In August they were taught to shake hands before going to supper, by offering one fore foot. Driven double out on the road to visit a steam sawmill, heard the noise of machinery and became familiar with the whistle of the locomotive. During September they carried sixty-pound boys every day for two hours up and down the road inside the front gate in a slow walk, then in a fast walk up and down hill, then in a slow trot and fast trot on a level; this kept them a little thin in the hot season, but they were growing at the rate of half an inch per month, having reached the hight of four feet nine and a half inches, keeping nearly the same size.

In October they were allowed a vacation of two weeks, in a third crop of clover, a foot high, with an additional allowance of salt to prevent slobbering; before being set free in the mornings, they were requested to bow their heads to the ground in supplication, which they soon learned to do with profound understanding. They had not been in clover long before they filled, and lay down on their mother earth and went to sleep.

In the last week in October they were hitched to the Baltimore wagon, and driven eight miles, working well up and down hill, and on a level showed how well they had been trained to trot by the boys. They were now turned on Kentucky blue-grass a half a foot high. At eighteen months old they were hitched to the high Greenville road-wagon, and visited the city, to and fro, fourteen miles. On this drive they showed the result of a home education, crossing streams and bridges and passing strangers with a grace and beauty equal to colts of their age of any country.

Exportation of American Horses.

The *Prairie Farmer* learns that there has been organized in Great Britain "The British Empire Horse Supply Association," whose object is to establish a line of fine and fast-plying ocean steamers, to run between this country and England, for the purpose of transporting American horses for the European market. Each steamer is to have a capacity for carrying four or five hundred animals, and the capital to be raised will reach £200,000. A careful comparison of the prices of horses here with those of England shows that this enterprise promises a rich return to the stockholders.

The ports of shipment will be Norfolk, New Orleans and Galveston, and they will be landed at Milford Haven and Southampton. The bulk of the horses will at first be purchased in this State, Kentucky and Texas, but the field will of course extend to other Western and Southern States if the profits justify the continuance of the business.

We regard this as an important announcement to the farmers and horse breeders of this country. The purpose, as we understand it, is to purchase our best class of farm and road horse, not the thoroughbreds or trotters as such, though, of course, the better the stock, the more remunerative will be the prices. It is estimated by the movers in this scheme, that the average price at which they can purchase the class of animals desired will be about $100 gold, and they hope to sell them at about double the price in the old country.

If the experiment proves a success, as we hope it will, it may lead to the organization of similar companies on the continent, and thus a new impetus be given to horse raising all over this country. Certainly horses can be raised here much cheaper than abroad, and it is not among the impossibilities that our native or common stock, improved by crosses with the Norman-Percheron, Clydesdale and other imported stallions, will yet largely supply the farms and cities of England and the continent.

The Vineyard.

Points on Raisin Making.

A writer for the Stockton *Independent* writes: At the Ranch of L. F. Jarvis & Bro., Columbia, Tuolumne county, we lately saw a large quantity of excellent raisins made from grapes of the White Muscat of Alexandria variety. Mr. Jarvis erected a platform by inserting posts in the ground and nailing across them scantling to support its covering of rough boards. The platform thus constructed is about four and a half feet high and about 150 feet in length and 75 feet wide. It is located where it receives the rays of the sun from morning till night. He also has smaller platforms similarly constructed and located. The grapes are gathered and spread upon the platforms, and, with the exception of turning over the large bunches, the heat of the sun completes the manufacture of the grape into merchantable raisins. Mr. Jarvis will this year dry about 30 tons of grapes, and as he estimates that it will take six pounds of grapes for one pound of raisins his product of dried fruit should be about five tons. Good California raisins are worth about 12 cents per pound, and as a large portion of these manufactured by Mr. Jarvis will compare very favorably with the imported article he ought at least to get the highest market price. Reckoning the raisins at that price it will make the grapes worth at least $30 per ton, which is much more than they can be sold for to wine manufacturers. It would be well for those now planting vineyards to cultivate only those varieties of grapes suitable for raisins, as such varieties are valuable, not only for drying, but can be used for making wine.

Los Angeles Raisins.

The Los Angeles *Express* has the following: Mr. Deitzler, the president of the Alden fruit preserving company, has written to Mr. Davis in reference to a recent accidental discovery touching the Los Angeles raisins dried at our Alden mills in 1874. Mr. Deitzler says: Our office-boy, in overhauling our fruit packages several days ago, found about half a pound of your raisins of 1874, which have turned into little balls of sugar. I have never seen anything like it in the raisin line, and the discovery is a most encouraging circumstance, particularly as regards the curing of raisins by the Alden process. I would pay $100 for 100 pounds of such raisins to be used as samples this coming season. Fortunately I have a number of boxes of raisins of last year's curing, which I propose to keep for next year. I have no doubt they will crystallize in the same way and get a darker color, which most people admire so much, and I am confident "it is owing to some exceptional feature in the curing and not to the greater abundance of sugar in the Los Angeles grapes." Your grapes contain no more sugar than grapes in the foothills, and this crystallization will take place in all grapes, especially in the Muscat, cured by the Alden process. Our raisins are quite good enough as they are, fresh from the factory, and most people prefer them in that condition to the best sun-dried raisins; but they improve very much by time, as you will discover by tasting the raisin enclosed in connection with those sent you several days ago, and such raisins would certainly command a higher price. It will pay to keep them a year—they would not become a mass of worms, as the sun-dried do, by keeping any length of time. People who think they could not afford to wait a year, ought to remember that if they convert their grapes into wine, they must wait and keep it several years before they can get a remunerative price.

How to Make Good Wine.—There is no reason why good wine may not be made out of our common Mission grape, if makers would go at it in the right way. It is very essential that no water be admitted into the barrels during or after effervescence, as it will make the wine sour—a fault too common among California wines. In order to allow the free escape of the gas, and at the same time exclude the air, a simple arrangement is used consisting of a load pipe leading from the bung into a tub of water. The joints must be carefully stopped with putty, and the barrels must be refilled until the effervescence has ceased, when the wine may be drawn off into clean barrels and stored. The wine treated in this way is sweet and agreeable to the taste, and comes nearer being just what suits the popular taste than what is usually made in the State. We commend this plan to grape growers, as it is the one followed by an experienced wine maker of this county, whose product is universally esteemed wherever it has been tasted.—*Sonoma Democrat.*

The Centennial.—Mr. George Bancroft expresses the belief that the coming Centennial exhibition will in every respect excel any international exhibition heretofore given. He thinks it will drive away hard times and encourage immigration to an astonishing extent. Mr. Bancroft thinks the next presidential campaign will be the most exciting one of our history.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is at No. 351 Market St.

Grangers' Business Association of California.

Notice of Annual Meeting of Stockholders.

The Annual Meeting of the Stockholders of the Grangers' Business Association of California, for the election of Directors, will be held at the office of the corporation, in the building at the north-east corner of California and Davis streets, in the city and county of San Francisco, on Wednesday, the sixteenth day of February, 1876, at the hour of ten o'clock in the forenoon of that day.

T. J. Brooke, Vice-President. William Vanderbilt, Secretary.

A Few Words to Sister Grangers.

My Dear Sisters:—I was very much interested in the "Notes From the State Grange," in the Press of October 23d. I became a Granger four years ago, but soon left the country for the city, therefore have not had the pleasure of attending Grange meetings. But I know from experience that farm life is monotonous, and shall never cease to be thankful for this great bond of union among farmers, which has given fresh hope and courage to many a weary wife, and new enterprise to her "worser half."

"Bleat be the tie that binds" us together in any good work. I rejoice that the California Grangers are pushing reform in so many directions. I do not read the reports as much as I would like (as we take over 20 publications, and of course I cannot read them thoroughly); this may account for the fact that I have not seen more about

Temperance Reform.

I am deeply interested in this subject. It is a blessed truth that we are living in a grand and glorious age, in a time when great opportunities are opening upon every hand—and we cannot afford to wait for the chiseled marble to record the fact that we have lived and died, with the date of the same. Grander far is the sublime ambition to write our own epitaph on the beating heart of humanity by uniform uprightness of character, for the cry on every breeze is for men—men with souls and bodies baptized with love for God and poor, weak humanity.

The cry is no less for women; and what work calls so loudly as this? A conflict is raging far more extensive and terrible than that between the North and South. It needs our faith, our prayers, our earnest and united efforts.

One hundred thousand yearly reel into a terrible eternity through the use of intoxicating drink, and what can we do? Will any farmer's wife lay down this paper just here, and go about her work remembering, (if it is in California, as in many places in New England,) the bottles of homemade wine and the cider in her store room. Would you not boil your cider into jelly, and throw your wine away rather than have your husband or son become a drunkard?

I am acquainted with more than one young man who owes his departure from a temperate life to homemade wine; and cider, usually considered so harmless, has led many to destruction. "Every road in England leads to London," "So," said a reformed man, "all drinking of intoxicating liquors leads to drunkenness." How long, think you, will your boys stand before the temptations of city or village rumshops if they have learned to love cider and wine at home? and is your influence on the right side if you use wine sauce, and wine in puddings, cakes and pies? It has made my heart ache to see that the serpent has even crept between the leaves of our beloved paper in the form of recipes having wine among the ingredients. I suppose it requires some strength to banish wine from the cook room if it has gained a place there.

A ladies' temperance society has recently been organized in this city, and when the ladies were requested to come forward and sign the pledge to abstain from the making and use of all intoxicating liquors, some, who had been quite zealous before, were observed to fold their silks about them, and "silently steal away." Alas! alas! for poor human nature, can we not deny our appetites, when our bodies perish so soon, for the sake of immortal souls? We are very glad that there are plenty of excellent recipes free from the curse, for we have "fared sumptuously every day," where never a bit of wine was seen from one year's end to the other. Sisters, can you not by banishing all that intoxicates from your home, and by taking care that your influence is always upon the right side, help on the temperance reform? You are compelled to be either upon the right or wrong side, for there is no neutral ground, if there ever was it is now too narrow to stand upon, and we perceive that those who fancy they are balancing themselves upon that delectable point are altogether upon the wrong side.

There is a great and growing interest in this work, and there is need enough of it when nine-tenths of all crime committed comes from the use of that which ruins souls and bodies. Yes, souls and bodies. One hundred thousand a year! and then from whence come the recruits to fill the depleted ranks? Your boys, and possibly your girls are to be the victims, unless by precept and example, by faith and prayer, you guard them against it.

Oh, for earnest workers! Oh, for men and women "with souls and bodies baptized with love for God and poor, weak humanity!" God has given you talents, use them in helping to save the fallen, and in keeping others from falling. Much praise was given to "woman's work in the civil war;" let woman's work in this war be above praise, let her be "lead by the hand of the Infinite," work with one band in the outstretched hand of the great "Burden Bearer," and, if not on earth, in the glorious hereafter she shall receive abundant reward.

Yours in Faith, Hope and Charity,
Dover, N. H., Dec., 1875. J. E Jameson.

The Order in England.

There is a good reason to believe that Bro. Wright will be met at least half way in his endeavors to introduce the Order into England. In evidence of this belief we give the following extract from an issue of the London *Farmer*, published before Mr. Wright's visit was known there:

"We will not at present stop to discuss the merits of Granges, or whether, as adverse critics say, they may not grow some day into a great monopolizing dictatorial power, representing class intereats only, to the danger of the rest of the community. But the power of combination among the Patrons of Husbandry, or Grangers as they are otherwise called, we greatly admire. It would appear impossible to persuade English farmers to combine their interests so effectively for any purpose under the sun. They are divided among themselves or they might return a large number of their own class as representatives to the House of Commons. Then, again, our farmers' clubs and chambers of agriculture are badly attended; several have of recent years become extinct and others are in a moribund state for want of hearty support. What is the solution of the question? It is peculiar to young countries to maintain a heartier brotherhood than those which are old. Whatever we think of the Granges English farmers have certainly a few lessons to learn in the power of combination for the advancement of their mutual interests."

In relation to the above, a contemporary commenta as follows: "It is probably true that there is more neighborly and brotherly feeling in new communities than in old, as witness logging bees, house and barn raisings in new settlements, etc.; but Patrons of Husbandry have achieved their greatest success in communities where members had become comparatively independent. The secret of Grange success lies in its social reforming and humanizing influences on members, and especially on the introduction of women as important and influential members of the Order. These peculiarities are inherent in the Grange system and their success is not necessarily limited to any section, country or clime. As a means of combining farmers for their mutual improvement and advantage nothing like it has ever been discovered in this country, and there is little doubt that it will be proportionately successful, not only in England, but ultimately wherever tillers of the soil or keepers of flocks and herds are found. As the experiment is soon to be tried in England, friends of the Order will watch with interest the result."

Minimum Dues.

There was an effort made at the last session of the National Grange to allow each Subordinate Grange to regulate the dues of its members. The constitution was so amended as to transfer the power to the State Granges. At the next session of our State Grange there is little doubt that authority will be vested in the Subordinate Granges to regulate the dues of their members absolutely—as it should be.

The amendment to Art. 7, Section 1, of the National Constitution, is the gist of the foregoing statement.

Feb. 16th, 1876. J. V. Webster, W. M. S. G.

The above is in response to questions sent to us which should have been addressed to the Worthy Master. While the announcement may be made in 30 days, that three-fourths of the State Granges have ratified the amendments to the National Grange, the provision in our State Grange Constitution will remain, that *each* member shall pay not less than 10 cents per month dues, and the Subordinate Grange must account to the State Grange for every Patron (brother or sister), not expelled or withdrawn—whether suspended or not.

Fruit Ladder.—W. Pearce, Secretary of Eden Grange, writes us that he has seen what seems to him the most perfect fruit ladder he has ever observed, and he has recommended that the inventor place a sample at the office of the Press and the Grangers' Business Association for the inspection of fruit growers.

What a Little Practical Co-operation did in Ohio.

A little over a year ago the pork packers at Cincinnati combined in a determination to put the price of hogs down to five cents per pound, and this at a time when there were fully 40,000 hogs in the pens at Cincinnati and Covington. The farmers knew that the state of the pork market would justify fully two cents more and firmly resolved rather than submit to the combination price, to slaughter and pack their own hogs. They acted under the general direction and advice of the President of a District Council representing a large number of Granges in Kentucky, Ohio and Indiana. The money ring stood firm; but the Grangers were equally firm and resolved to hold to their first intentions, let the act lead to profit or loss.

Time wore on until the packers became satisfied that the Grangers meant "business," and were thoroughly united, when the former finally yielded the point so far as to open negotiations. The result was that the entire lot of 40,000 head, or about 12,000,000 pounds, was taken at 7½ cents—2½ cents advance over the price at first offered—an enormous total gain of $300,000 upon the lot on hand, to say nothing of the advance realized during the balance of the season. This result could never have been reached except through the firm union brought about by the Grange. Then let the Grange be perpetuated; let it be a true union of heads, hands, hearts and work, and the farmers will continue to reap vast benefits from the Order. If they maintain such union and use it justly, they will not only be able to protect themselves from all unjust combinations, but at the same time will command the respect of all who do business with them. Concentrate your power and means; be real, consistent and true co-operators, and prosperity will wait upon your efforts.

Noising Family Matters Abroad.

The Secretary of Antelope Grange, Colusa county, has written us an able but rather lengthy article concerning the circular of Ballena Grange. With other remarks he thinks, under the circumstances, the member of Walnut Creek Grange should have addressed his inquiry to the Master of the State Grange; that the editors' first comments should not have been published; that the Order has many enemies; that too much has gone abroad in these articles which should have been only inside affairs, etc. He further remarks:

I have no doubt that it has been very mortifying to the members of Ballena Grange to read those articles here alluded to, if they are honest Patrons, and I believe we have no good reason to think them otherwise; I expect they would a thousand times rather have kept their trouble to themselves. * * * I was appointed to remit a "mite" asked from our Grange, and felt doubly proud; first that I was selected by our Grange, second, it permitted me to put my name to those few words it was necessary to send along, and I made it my duty to attend to it the first time I could at this season of the year.

In conclusion let me ask, Brothers, if it would not be more generous to keep everything that may be said, that could hurt a brother's feeling, strictly within the Grange. Again, I believe if every good Patron would consider it carefully every time he took 10 cents into a saloon, that the Patrons of Husbandry would be of more benefit to the country at large than they are, even with their present declared purposes carried out in the strictest sense of the word.

P. Peterson.

We trust our correspondent will concur with us that enough has already been said in print on this subject.

Encouraging the Despondent.—The *Patrons' Helper* asks: "What can be said to encourage the despondent and rouse up the laggards in our Order?" and answers the question thus: That all organizations, as all men, must have their trials; that nothing is worth having that costs nothing; that this is the first time farmers as a class have attempted any great matter on their own account; that doubtless, and as a natural consequence of want of experience, unwise things have been done; but that the farmers as a class are more numerous than any other class of men in the country, and equal to all others combined; that they are cooler in the head, stronger in the back, and really more independent, financially and every other way, than any other class of men, and, finally, that they are going to succeed whether or no.

The Grange Value of the Rural Press.—R. J. Livingston, secretary of Genoa Grange, Nevada, writes: "I know the prosperity of our Grange will be enhanced by its members taking the Rural Press."

A. B. Glover, secretary of Bloomfield Grange, writes: "I do not blame you for drumming up the Patrons of the Granges when you have worked so well for them. They are all able to take the Press and would be well paid in reading it. I think it the best paper on this coast."

Election of Officers.

Bernardo Grange, No. 239, Bernardo, San Dieoo Co., Cal.—J. P. Jones, M.; F. E. Feeler, O.; W. Whitney, L.; A. Montgomery, C.; H. Sikes, S.; H. Dewey, A. S.; W. A. Feeler, Sec'y; B. E. Barker, T.; Mrs. T. Duncan, Ceres; Miss K. Sikes, Pomona; Miss A. Feeler, Flora; Mrs. Rosa Sherman, L. A. S.

Elliott Grange, No. 183, Elliott, San Joaquin Co.—Election, Dec. 18th: J. Wiltse, M.; J. Lamb, O.; Mrs. S. Lamb, L.; J. B. Greene, C.; R. Adams, S.; H. Adams, A. S.; B. M. Greene, Sec'y; C. C. West, T.; H. H. West, G. K; Mrs. C. Misener, Ceres; Mrs. M. A. West, Pomona; Miss A. Johnson, Flora; Miss L. Markle, L. A. S.

Pilot Hill Grange, No. 1, Pilot Hill, El Dorado Co.—Election, Dec. 11th, 1875: P. D. Brown, M.; J. E. Terry, O.; Mrs. M. F. Stoddard, L.; C. S. Rogers, S.; John Bishop, A. S.; Silas Hays, C.; Hiram Stoddard, T.; Wm Taylor, Sec'y; J. W. Davis, G. K; Mrs. S. G. Orr, Ceres; Miss L. Peacock, Pomona; Miss Jennie Bayley, Flora; Mrs. L. Wardwell, L. A. S.; Louis Strechley, Trustee.

Tule River Grange, No. 137, Porterville, Cal.—C. W. McKelvey, M.; A. Hadley, O.; E. H. Baker, L.; A. Tragaer, S.; D. M. Vance, A. S.; Wm. Tragaer, C.; J. B. Hockett, T.; W. H. Atkinson, Sec'y; Wm. L. McGee, G. K.; Mrs. Wm. L. McGee, Ceres; Mrs. G. A. Williamson, Flora; Mrs. A. Hadley, Pomona; Jennie Gilmer, L. A. S.

Two Rock Grange, No. 152, Two Rock, Sonoma Co., Cal.—Election, Dec. 11th: S. M. Martin, M.; A. Wilsey, O.; H. Andrews, L.; V. Wilson, S.; N. Church, A. S.; W. D. Freeman, T.; Sister A. A. Wooden, Sec'y; Sister Sarah Wilsey, Ceres; Sister A. Colburn, Flora; Sister H. L. Barlow, L. A. S.; Sister M. L. Hinshaw, C.; Sister Celia Purvine, Pomona.

West Grafton Grange, No. 89, Yolo, Yolo Co., Cal.—Geo. Sharpnack, M.; Elias Harley, O.; A. W. Morris, L.; I. F. Nason, S.; Jay Green, A. S.; J. W. Brown, C.; S. M. Mapes, T.; Geo. W. Park, Sec'y; A. Harley, G. K.; Miss M. H Watson, Ceres; Mrs. E. A. Manor, Pomona; Mrs. Mary Morris, Flora; Mrs. Mary G. Harley, L. A. S.

The "Rural Press" the Farmers' Friend.

E. H. Cheney, Secretary of Bodega Grange, writes the following frank endorsement of the course of the Rural Press:

"Stitching and trimming the paper is a great improvement; it is more convenient for filing for future reference. I regard it as a first-class agricultural paper, and it will not suffer in the least by comparison with its more pretentious neighbors in the East. For this latitude it is better adapted to the wants of the farmers than any Eastern journal, and being the organ of the Patrons of Husbandry on this coast, as such it should be supported by every Patron; yet how few recognize the power of the Press to remedy the evils of which we complain. The Rural Press has done more to awaken the farmers of California to a just appreciation of their rights and duties than any other journal in California, and farmers should in return supply it with sinews for more vigorous warfare."

Old People in the Grange.—No Subordinate Grange, says the *National Granger*, is complete without it is pretty fairly sprinkled with gray hairs. If "gray hairs are venerable" anywhere, they surely are within the walls of our noble organization. In some places, heretofore, the young people have been the active—and we might say the only—Patrons of Husbandry. This rule should be amended. Every one, on every farm, old enough to be accountable, ought to belong to the Grange—unless he or she is so cross or fault-finding, or so objectionable otherwise, as to be unfit for any society. By all means have the old people in the Grange. They are the salt of the Order, and unless we are well seasoned by them, we are liable to become flat and insipid, and it may be almost unpalatable.

The *Oregon Cultivator*, published at Albany, is a large eight page paper, edited by N. W. Garretson, late of the *Patron's Helper*, Des Moines Iowa, and the Deputy who organized the State Granges of California and Oregon. Bro Garretson is as deserving in his editorial labor as in his former work for the Grange. He cultivates without fear or stint, and produces for the farmers and Patrons of Oregon an excellent paper, largely filled with editorials of elevated views and instruction. The *Cultivator* and its editor have our good wishes for success

Grange Work for the Ladies.—The Virginia *Patron* suggests as an improvement to the working of the new year that a portion of every meeting be set apart to the use of lady members, and that they be called upon to give their opinions as to the best mode of beautifying home, general housekeeping, educating children, managing servants, handling milk for butter and cheese, making butter, attending bees and securing honey, making and baking bread, pies, cakes, etc., trying lard, cultivating flowers, using sewing machines and such other subjects as may interest them. Give the ladies their proper positions and good will result therefrom.

In Memoriam.

We have received from Stockton Grange, No. 70, the preamble and resolutions concerning the death of Sister Jane W. Anderson, wife of William, Anderson, adopted by the Grange. The preamble recites the fact of her deplored departure. The resolntions are as follows:

Resolved, That in the death of our heloved Sister Anderson, our Grange has lost a true hearted member and her husband a devoted companion.

Resolved, That we mourn with profound regret the severance of a link broken in our fraternal chain, that we deplore the loss of our sister, and shall miss her in our deliherations and social gatherings; still, we humbly how in submission to the will of the Master ahove, believing that our loss is our sister's gain.

E. Leighton, Secretary, sends us the following resolutions, which were adopted at the last meeting of Pescadero Grange, No. 22:

WHEREAS, It has pleased our Divine Master to call from this earth our beloved sister, MRS. HATTIE SPRAGUE, he it

Resolved, That in the death of Sistor SPRAGUE we feel that Pescadero Grango has lost a worthy member, her husband a devoted wife, her family a loving daughter and sister, and the community a kind hearted woman.

Resolved, That her husband and relatives have the kind sympathy of every member of our Grange.

Resolved, That our charter he draped with the usual hadge of mourning for 30 days, that these resolutions be placed upon our minutes, and a copy sent to the husband and relatives of the deceased, also a copy he sent to the RURAL PRESS.

E. LEIGHTON, MRS. A. W. GOULSON, MRS. M. J. LEIGHTON. } Com.

The following action was recently taken by Stanislaus Grange, No. 4, Modesto, Cal.:

WHEREAS, The Divine Master above has seen fit to remove hy death our heloved brother, CHARLES SKINNER, from our midst to his eternal home in heaven,

Resolved, That in the death of Brother SKINNER this Grange has lost a good and respected member, and his family a true son and brother.

Resolved, That, as a hand of devoted brothers and sisters, we extend our deepest sympathy to his afflicted family in this their time of bereavement.

Resolved, That these resolutions he spread upon the minutes of this Grange, and that a copy of the same he sent to the hereft family, also to the RURAL PRESS and Modesto papers for publication.

JOHN V. DAVIES, P. P. STILES, J. D. SPENCER, } Com.

AGRICULTURAL NOTES.

California.

ALAMEDA.

THE LIVERMORE VALLEY.—*Enterprise*, Feb. 19: Now that the plowing and seeding is about over, we see a great many of onr farmers in town freqnently. Within a few weeks haying will commence and laboring men will be in demand. From present outlook no valley in the State will prodnce more than our own beautiful Livermore. The hills and surroundings are a complete panorama of bright green growing grain. Everywhere the prospect looks lovely, and we trust that the March and April showers may come, that wealth may pour into the purses of onr hard working people.

CONTRA COSTA.

FINISHING UP.—*Gazette*, Feb. 19: Our farmers are improving the fine weather of this week to complete the plowing and seeding work of the season as fast as the condition of the land will admit. The weather, though very fine since Saturday last, has not appeared altogether settled, and once or twice has looked as though if abont to bring us more rain, to our measure of which nothing has been added since Friday of last week. If we can be let off without more dnring the remainder of the month we shall be suited and everybody will be throngh seeding.

COLUSA.

EARLY.—*Sun*, Feb. 19: We learn that there is much wheat in the county already jointing out. We are afraid this is too far advanced, as hard frosts or freezing weather will either injure wheat when so far advanced. While a freeze does not hurt the blade of wheat it will kill the tender green stalk. It would help all the early wheat to run a mower throngh it. It has been demonstrated, to our satisfaction at least, that wheat pastured down with sheep nntil March makes better grain than that which is allowed to joint out so early.

FRESNO.

WORK IN BORDEN.—*Expositor*, Feb. 16: Irrigating is the order of the day. Work on the checks and ditches, up to the last rain storm, has kept our teams busy. Seeding is through, or almost through with. There are abont twice as many acres under cultivation in this neighborhood this year as during any previons season, and everything promises an abundant harvest. The heavy fall of snow on the foothills and monntains insures us plenty of water for irrigation late in the spring. The season, however, has been so favorable that even the farmers who are not blessed with the facilities for irrigating are reasonably certain of an abnndant harvest, and this will go far towards doing away with the mistaken idea that the connty is only fit for sheep or cattle pasture.

KERN.

A LARGE FARM.—*Californian*, Feb. 17: Mr. W. H. Sonther has already plowed and planted from 2,000 to 3,000 acres of his farm. His improvements are visible over all the surrounding country. The favorable season and abnndance of water will enable him to make a fine showing for the year.

WHAT A CANAL COST. — The Kern Island canal, 12 miles in length by 20 feet in width, with one drop, has cost $7,000 per mile.

LOS ANGELES.

DAIRYING WITH ARTESIAN WELLS.—*Gazette*, Feb. 12: Six natural artesian springs are possessed by C. C. Edinger, on his 180 acre farm, one mile and a half south of Santa Ana. Put a 20-foot pole down in the largest of them, let go, and it will fly into the air 10 feet from the snrface, while it is only five feet to the quicksand below, thus proving conclusively that it is an artesian spring. Mr. E. proposes in a short time to convert his ranch into a dairy farm, and as he is an old dairyman, understanding his bnsiness thoroughly, he proposes to remove the general complaint of this community, that they can get no good butter during the hot and dry season of the year.

INCREASE OF CEREALS.—*Trade Circular*, Feb 12: During the fall and early winter there was great activity among the farmers and fruit-raisers of Southern California, and this early plowing and sowing has resulted in an nnusually large amonnt of cereals being planted in this district. This work has been followed by the rains of January, which have given the fields an appearance of great promise. The grain is now well up through the ground, and the wet of last month has given it a very healthy start, so that we may reasonably expect the crop of 1876 to replace the falling short in that of 1875, which was but 80 per cent. ot that of the preceding year, and that with ordinary weather the grain crop of Southern California this year will be by far the largest and finest on record.

WEATHER SIGNS.—*Herald*, Feb. 12: An old weather prophet, thirty years in California, sometimes visits the *Herald* office. He says the signs of rain in this valley are: First, clouds on the sides of the mountains. Northeast wind with this sign brings a regular rain. Rain with southeast wind never lasts long. Southwest wind is only a squall, and northwest wind, no rain at all.

SONOMA.

WORTHLESS DOGS.—*Flag*, Feb. 10: Thomas H. Merry, whose ranch is situated on Dry creek, six miles northwest of Healdsburg, five years ago commenced breeding a flock of 18 fine-blooded goats, the mother being imported from China. During this time a part of them had been graded, and though but little or no revenue had yet been obtained, next year a handsome yield of fine fleece was expected. Some time last Sunday night, however, dogs attacked and killed one-third of them—several of the killed being grades. What effect on the community must this unfortunate circumstance have? An enterprising farmer spends five years to improve his stock at great expense and care, only to see a large proportion of it destroyed in a single night by a pack of worthless dogs.

THE WHEAT CROP.—*Democrat*, Feb. 19: The late severe rains will necessarily delay the seeding of wheat in this section for a time, but it does not follow that the harvest will be on that account the lighter. The summer fallow and dry sown lands look uncommonly promising. That sown in December and the early part of January is much of it drowned out. In forecasting the probabilities of the harvest many things must be considered, some of which cut no figure in those parts of the State where the rainfall is lighter and the season earlier. There is at least two months difference in the season here and on the San Joaquin and south of Santa Clara. In the dryer portions of the southern counties the grass is as far toward maturity in April, as here the first of June, and our grain harvest is as much later in proportion. For these reasons grain may be safely sown here a month or six weeks later than further south, and still mature well. With favorable weather, in the next two weeks the ground seeded will be fully up to the average, and if not unusually wet in the month of March the yield will be also an average,

SAN JOAQUIN.

IMPROVED STOCK.—*Independent*, Feb. 17: San Joaquin county is becoming well known for the possession of fine stock of all kinds, a very gratifying improvement having been made in this direction within the past few years. The fact is getting to be appreciated that it pays to raise good thoroughbred stock. Many of the fastest racing and trotting horses of the Pacific slope have originated in San Joaquin county, and are the outgrowth of the painstaking in breeding of the San Joaquin connty stock raisers. It gives us pleasure to note the fact that the thoroughbred horse, Nelson, has recently been purchased and brought to this county, as in addition to our thoroughbred stock of that character. The horse has a fine record and illnstrious pedigree.

SAN DIEGO.

BETTER BE PRODUCERS THAN PURCHASERS.—*World*, Feb. 12: The heart of the farmer is rejoiced, and his thanksgiving should be heard in the land. Two weeks ago it was said that the crop of the county was assured beyond peradventnre, and if that were true then, it is truer now since we have had 1.64 inches of rain to be added to the previous fall. It insures a yield in all departments of agriculture, and in all else that pertains to the conntry. We cannot say how much of a crop has already been planted, but suppose from what we have heard, that it is larger than at any previous time. We cannot have too much. It is better that hay should be a drng in the market at home at $10 or $12 a ton than that it should be brought here at even the same price; and so of all else that may be raised in this connty, and if we had a good start, that wonld be pretty much everything that is needed. There is yet time to plant. Much may yet be put into the ground and make crops, if farmers will see it in that way, and act npon it promptly, and are anxious to develop the land as well as replenish their pockets. It is far better to have something for sale than to be a purchaser. It is better to have a trifle coming in than a continual drain going out.

SANTA BARBARA.

LOMPOC ITEMS.—*Record*, Feb. 12: A gentleman passing from the upper end of our valley to the beach and around by the Downings' and Col. McLeod's, back, counted 85 teams plowing, many of these four horse gang plows. If the average per team is two acres per day we have a daily resnlt of 170 acres plowed. Our friend Richards, while in Santa Barbara, according to the *Press* of the 22th inst., gave it as his opinion that 4,000 acres would be cultivated in this valley the present year. We think the reporter has misstated, or Mr. Richard's judgment is very defective, for there is already over 4,000 acres plowed and the soil is being turned at the rate of 100 acres per day. The fact is that between 8,000 and 10,000 acres will be farmed, and a thousand or two more left for hay. The potato crop alone will occupy about 4,000 acres.

VENTURA.

HOG RAISING.—*Cor. Western Farm Journal*: Some of our farmers in Ventura county have bonght no sacks for two years past. They put their grain into *hog skins*, thereby saving the expense of harvesting and at the same time realizing a better price. The hogs are very accommodating. They go into the field and gather the crop and then take it to market for us. I have a field of 75 acres planted to barley which is growing finely. It stands now about "knee high." I expect to put 300 head of stock hogs into it and keep them there until the barley in another field is ripe, then those that will be soonest ready for market will be put into the new field until they are fat enough to sell. The stock hogs will then take the same field. The first field will then be dry-plowed so that the seed the hogs did not get will come the first rain and make green feed for the sows and pigs. We have plenty of beets and squashes for them during the times we have no grass. A field may be seeded once and by dry-plowing may not be sown again for several years. There is always enough grain left on the ground to seed the land. Some farmers do not plow but let the seed volunteer. The crop is not so good if the ground is not cultivated. One of my neighbors expects to arrange his farm so that he can turn off 1,000 head of hogs every month. He has about 400 acres and all fenced. This year being in debt for land and fence he has been compelled to sell part of his stock hogs. Hogs, however, will increase faster than money at interest, and my neighbor will soon be clear of debt if he meets no misfortune.

THE OIL INTEREST.—*Signal*, Feb. 5: We have always insisted that our greatest sonrce of wealth in this county was our petroleum deposits. Continued and close observation and counsel with those who have had experience in working our oil confirms us thoroughly in the opinion that the time is close at hand when some party or parties will commence active and systematic operations in developing the oil interests of this county. * * * Let a stock company at once be organized on a fair, legitimate basis, for the pnrpose of boring a well, the stock all to be taken in this section. Let the company secure the right from owners of land to bore anywhere in the oil district, to get all the product of the well and if successful to have rights subject to royalty to the land owners in other localities in the district. The first well would doubtless, throngh the knowledge of all interested, be properly located. In conclusion we would say, several facts are thoroughly established: (1.) The oil in paying qnantities exists in this connty. (2.) The experience at San Fernando, a much less extensive and much less accessible and productive district than ours, proves that a lubricating oil snperior to the best West Virginia may be made of our medium oil, and the experience of the several gas companies at Red Bluff, Chico, Marysville, Santa Barbara and several other points prove that our oil, which they all use, has no superior for generating gas. (3.) The right to work the oil can, for a small consideration, be secnred, and thousands of dollars' worth of machinery had for nearly as many hundreds.

YOLO.

PROGRESS ON MERRITT ISLAND.—*Democrat*, Feb. 18: The prospects for heavy crops were never more flattering than at present, and unless some unforeseen calamity befalls the farmers of Merritt island they will produce one-third more hay and barley this year than ever before. Since the people here have reclaimed their lands they have gone to work improving them with redoubled energy. Some fine buildings have gone up dnring the past summer and fall. Burgess T. King has erected a fine two-story residence at a cost of about $4,000. Mr. King is one of the first settlers on Merritt island. Mr. J. B. Greene has built a fine large barn, which is said to have cost $2 500. M. McFadden has just completed a very nice barn on his farm at a cost of $1,400. Mr. Nelson Bump, who lives at the lower end of Merritt island, has constructed a very handsome two-story residence with a brick basement, the cost of which is near $5,000. Other smaller buildings have been put up, while a nnmber of farmers expect to adorn their farms with handsome buildings during the coming season. And not only do the people here build fine barns and honses, but they are clearing, plowing and fencing lands that have heretofore been left in a wild and uncultivated state.

SISKIYOU.

STOCK SUFFERING.—*Union*, Feb. 9: We learn that White, of Bogus, who had abont 900 head of sheep last fall, has only about 300, owing to the storms and lack of feed. G. W. Webb, of Shasta valley, has lost a few hundred head out of his flock of 15,000, which is not bad, considering the severity of the weather, and the great number. Linton has been losing a large number, and his band looks poor. There is little chance for feed on the ranges, excepting a few points on the south side of the hills where the sun started np the grass. The snow is about all off at Bogus, Willow creek and Shasta valley, north of Yreka, but the heavy fogs this winter, before and since the snow storms, have prevented the grass from coming out.

Nevada.

STARVING CATTLE.—*Transcript*, Feb. 15: Paradise valley is overrun with cattle, which are in a starving condition. Large bands of cattle which range in the surrounding monntains in summer have swarmed into the valleys and eaten all the feed outside the enclosures. Work oxen turned out there late in the fall by teamsters are dying of hunger, and can not live through the winter unless they are better provided for.

Oregon.

WOOL AND CEREALS FOR THE CENTENNIAL.—*Oregonian*, Feb. 5: Yesterday we called at the St. Charles hotel to inspect the various samples of fine graded wools which have been collected and arranged in proper condition for shipment to Philadelphia, to be placed on exhibition at the coming Centennial. These wools are carefully arranged according to the quality of the grades, in frames, each sample being held to its place by pieces of ribbon. There are eight frames containing as many samples. Mr. M. Wilkins, of Linn county, enjoys the credit of having grown six of the samples on exhibition. One frame contains a specimen of the finest grade of a Cotswold fleece, another a sample of Leicester wool, while four frames contain an equal number of grades of improved Oxford wool. These wools are of extraordinary fineness, and the exhibition of the same cannot fail to impress the world most favorably with the superior grades of that article grown in Oregon. Mr. Wilkins also has a sample of fine wool cut from the fleece of an improved Oxford lamb only six months old, which for beauty and delicateness of fiber can scarcely be distinguished from silk. Mr. Thos. L. Davidson, who resides near Salem, has two frames containing extraordinary fine samples of wool taken from the fleece of a Merino sheep. All these specimens have been selected with extreme care, and prepared with the taste.

THE Centennial Commissioners have snceeded in collecting a magnificent assortment of cereals, which are temporarily on exhibition in one of the rooms of the St. Charles hotel building, where they will be allowed to remain until shipped East. There are about 42 varieties of the cereals commonly known in this State, including the various wheats—spring, fall, etc., grasses, barley, rye, oats, etc. Great care has been exercised in the selection of the varieties of grain and grasses, and none but the *very best* collected. Without an exception the grains are large, plump and fully developed, and are marvels of what a fertile soil and favorable elimate can produce. These cereals are now arranged in large round glass jars which are kept tightly closed, and the contents excluded from exposure to the air. By this precaution the grains can be prevented from shrinkage, and will reach their destination plump and clean. When ready for shipment East, the cereals will be placed in small sacks, appropriately labeled to prevent confusion and facilitate easy and rapid classification, pnt into tight boxes and sent as ordinary freight. On reaching Philadelphia, the grain is to be taken out and arranged in square glass jars, which will enable the varieties to be exhibited most advantageously. Each bottle will have a label attached, giving the variety of grain, where and by whom raised.

CALIFORNIA ANGORA MANUFACTURES IN WASHINGTON.—The Agricultnral Report says that there have been placed in the museum of the department some specimens of dressed Angora skin, with fleece intact, of divers colors and great beauty, such as are used for fancy robes, rngs, mats, fur gauntlets and for other purposes. These gloves are very strong, durable, warm and showy. The leather is also used in strings for belt-lacing, and appears from its great strength to be very snitable for such nse. This is the work of the Angora robe and glove company, located at San Jose, and demonstrates the availability of Angora products for successful manufacture into articles of comfort and utility. Their gloves, nnlike those of buckskin, are dressed with the grain left on. Mr. Frank Leavis, the secretary of the company, is a part owner of a flock of 600 ewes which were sheared last spring.

FLUCTUATIONS IN PETROLEUM.—Great have been the fluctuations in the price of petroleum. Since 1864 the monthly price at Titusville has been all the way from $13.75 to 73 cents per barrel, and the average of prices has been from $7.62 in 1864 to $1.29 in 1874. Fortunes have been won but few have been kept. The snddenness with which those who were poorest of the poor have become millionaires, has only been equaled by the suddenness with which they have become poor again.

A Memory.

[Written for the RURAL PRESS by ELISA E. ANTHONY.]

Faint and sweet, a fragrant odor
Steals soft o'er my senses now,
As I kneel here, closely clasping
Hot hands 'gainst an aching brow.

'Tis the same sweet, dizzying odor
Of the fragrant tuberose white,
That he twined among my tresses,
Just one year ago to-night.

Just one year—but O, what changes;
To him, 'twas but a brief delight;
I was a toy—a passing joy.
Would that I had died that night!

'Tis all past, but not forgotten;
O, that there would never come
The memory of those happy hours,
Fragrant with the tuberose bloom.

Santa Cruz, Cal., February, 1876.

Thoughts on "The Mission of the Press."

EDITORS PRESS:—When the rain poure day and night for weeks, daye and houre, daily exietence becomes monotonous. We have read and reread the last few numbers of the RURAL, the *Call*, and our county contributions to current literature, until our head eeems full of notione, worse and more confounded than a Ysukee curiosity shop.

From reading wo take the pen; from receiving the thoughts of othere we feel as if we should also give out thoughts, eo as to he a giver as well se a receiver. A thought born of the mind is buried there, except we give that thought utterance in some shape. When recorded by the pen, that thought becomes a fact, but when it has been transfixed by the printing press it almost becomes immortal, and goes out to fulfill a mission either for good or evil. Many a thought finds a prominent place in the world's record book which the writer would fain recall; but once on its mission no regrets csn wash out the stain. This reflection sometimes may withhold thoughts which otherwise might find expression, making us careful that no heart will he saddened by their effects, no eyes dimmed by being uncharitable, no pathway pointed out wherein the unwary might go astray, no desire to expose the frail side of human experience, but a wish to instruct and elevate, to cultivate Hope and Charity—white-winged angels of peace and purity.

Too often the daily press of cities panders to a depraved appetite, exposing the weak side of human nature, sinking still deeper the victim of fate into the maelstrom of hopeless despair. Suppose, for effect, that the city press should etay the recital of society's ulcerated eores, even for one day, and herald forth all the good apparent in human life and action. The rebound would convulse social life and private goesip. But how much better would it he for the peace and innocence of the inexperienced if these filthy details of every day weaknesses were altogether euppreseed, and only the good deeds of men and maidens made public. The mind grows on what it feeds upon, and these ecandal disbes eerved up by the public's great oracle—the press—keeps society in the vsn of all that depraves human nature.

It is a relief to turn to the Home Circle of the RURAL, where morality, practical religion sud virtue stand pre-eminent. Rural life is displayed in its simplest, holiest guise, health enculested by strict temperance, and a walk with nature and divine laws; making work, worehip and enjoyment, praise.

Thie Centennial year ehould inaugurate a higher standard of literature among the eo powerfully influential daily papers of the metropolis; covering up with a mantle of charity the faulte and failings of "brothers and eisters," and holding up for emulstion the good deeds of the good Samaritan, or even those accounted as sinners. The reading mind would not then be polluted by exaggerated closet skeletons, or the actions of weak morsl nature.

Meesrs. Editors, you will excuee my lengthy remarke on this all important theme; but if every reader had the same unsatisfactory reflections ae myself after reading the pagee of our public dailies, the necessity for such a scandal disb would eoon pass away. How grand we feel at the recital of aome noble act; aome deed of heroic valor; eome sentiment appealing to the better and higher instincts of the soul. If this teaching were more universally practiced how soon would the evile complained of pass away, and a spirit of emulation be cultivated for a higher good? We would allow the stricken and the sinning to suffer in secret without the anguish of knowing that thousands of readers were gloating over a magnified dish of the heart's burden, crushing many good and noble natures into the grave of the suicide. May a warm fraternal and paternal spirit animate the pene of the votaries of the press, is the desire of yours *in transitu*,

JOHN TAYLOR.

Mount Pleasant, Feb. 11th, 1876.

Home.

That word *home* alwaye eounds like poetry to me. It rings like a peal of belle at a wedding, only more soft and eweet, sud it chimes deeper into the ears of my heart. It doee not matter whether it meane thatched cottage or manor house, home is home, be it ever so homely, and there's no place like it. Green grow the houseleek on the roof forever, and let the moee flourish on the thetch. Sweetly the epsrrows chirrup and the swallows twitter around the chosen spot which is my joy and rest. Every bird loves its own nest; the owls think the old ruine the fairest spot under the moon, and the fox is of opinion that hie hole in the hill is remarkably cosy. When my master'e nag knows that hie head ie towards home he wants no whip, but thinke it best to put on all steam; and I am alwaye of the eame mind, for the way home, to me, is the best bit of road in the country. I like to see the blue emoke out of my own chimney better than the fire on another man'e hearth; there is something eo beautiful in the way in which it curls up among the trees. Cold potatoes on my own table taete better than roast meat at my neighbor's, and the honeysuckle at my own door is the sweeteet I ever smell. When you are out, friends do their best, but still it is not home. "Make youreelf at home," they eay, becauee everybody knows that to feel at home ie to feel at ease.

"East and West,
Home is best."

Why, at home you are at home, and what more do you want? Nobody grudges you, whatever your appetite may be; and you don't get put into a damp bed. Safe in his own castle, like a king in hie palace, a men feele himself somebody, snd is not afraid of being thought proud for thinking so. Every cock may crow on hie own dunghill; and a dog is a lion when he is at home. A eweep is master ineide his own door. No need to guard every word because eome enemy is on the watch, no keeping the heart under lock snd key; but as soon as the door ie shut, it is liberty hall, and none to peep and pry. There is a glorious view from the top of Leith hill, in our dear old Surrey, and Hindhead and Martha's chapel and Boxhill sre not to be sneezed at, but I could show you eomething which to my mind beats them all to nothing for real beauty; I mean John Ploughman's cottage, with the kettle boiling on the hob, singing like an unfallen black angel, while the cat is lying asleep in front of the fire, and the wife in her chair mending etockinga, and the children cutting about the room, as full of fun ae young lambs. It is a singular fact, and perhaps some of you will doubt it, but that is your unbelieving nature, our little ones are real beauties, alwaye a pound or two plumper than others of their age, and yet it don't tire you half eo much to nurse them as it doea other people's babies. Why, bless you, my wife would give out in half the time, if her neighbor had asked her to aee to a strange youngster, but her own children don't seem to tire her at all; now my belief is that it all comes of their having been born at home. Just so it ie with everything else; our lane is the moet beautiful for 20 miles around, because our home is in it; and my garden is a perfect paradise, for no other particular reason than this very good one, that it belonga to the old house at home.

I cannot make out why so many working men spend their evenings at the public house, when their own firesides would be eo much het ter and cheaper too. There they sit, hour after hour, boozing and talking nonsense, and forgetting the dear good aouls at home who are half starved and weary with waiting for them.

Husbands should try to make home happy and holy. It is an ill bird that fouls ite own nest, a bad man who makes his home wretched. Our house ought to be a little church, with holiness to the Lord over the door, but it ought never to be a prison where there is plenty of rule snd order, but little love and no pleasure. Married life is not all sugar, but grace in the heart will keep away most of the sours. Godliness and love can make a man like a bird in a hedge, sing among thorne and briers, and set others a singing too. It should be the husband's pleasure to please his wife, and the wife's care to care for her husband. He is kind to himself who is kind to his wife. I am afraid eome men live by the rule of self, and when that ie the case home happiness is a mere sham. When husbands and wives are well yoked, how light their load becomes! It is not every couple that ie a pair, and the more's the pity. In a true home all the strife is which can do the most to make the family happy. A home should be a Bethel, not a Babel. The husband should be the houseband, binding all together like a corner stone, but not crushing everything like a millstone. Unkind and domineering husbands ought not to pretend to be Christians, for they act clean contrary to Christ's commands. Yet a home must be well ordered, or it will become a Bedlam, and be a ecandal to the parish. If the father drops the reins, the family coach will soon be in the ditch. A wise mixture of love and firmness will do it; but neither harshness nor softness alone will keep home in happy order.—*Spurgeon.*

A NOVEL USE FOR OIL.—Two hundred barrels of oil have been poured into the basin at Baltimore to destroy the effluvia. The oil, it is said, deodorizes the globules of sulphuretted hydrogen generated by the sea water's action upon organic matter.

Domestic Beverages.

On Saturday evening, Feb. 12th, Professor E. W. Hilgard, of the State University, delivered the first of a series of lectures on "The Domestic Beverages of Different Nations." He first directed attention to the beverage—clear, pure, sparkling water, and said that it has been asserted that water is most injurious to the human system when it is taken raw and not boiled; that to be most healthful it should be most pure, and that it should be in the state which chemists call distilled. Such water fails to quench thirst.

The lecturer touched upon the gasee of water, and referred to the health-giving properties of soda water, but deprecated the fact that injurious materials are used in the construction of the receptacles and pipes. The pipes frequently poisoned the water. He advised persons who wished to obtain pure soda water to test it by trying it without syrups, and if it left a disagreeable and flattish flavor in the mouth to drink no more of it from that fountain. He urged that there should be no excessive use of mineral water, whether it be artificial or not, saying that it produces tipsyness and stupor. He thought it necessary to call special attention to the fact that many of the syrups used at soda fountains are manufactured from objectionable materials, and are injurious to the system. No one in five of the strawberry syrups ever saw a strawberry. They are made out of old cheese. Of course, the cheese is so transformed that all trace of it are entirely gone. The use of mineral water is too frequent in the countries where they abound. In one district in Mississippi the people had nothing else in the character of water to drink, and epsom salts (as it really was) was used in coffee and tea and as a refreshing drink. There was much sickness in consequence.

The person who take medicine because they are ill will find that it is not healthful to continue the drugs after they have been restored to health. The lecturer spoke on the contamination of wells, and suggested the use of the charcoal process for purifying water. He strongly opposed the use of zinc in lieu of tin, in the construction of vessels for water. Next he referred to tea and coffee and the rapid and most extraordinary introduction of these beverages or tonics among all nations, and the effect such decoctions would have on the brute creation. Six ordinary cups of coffee will kill a cat. One cup contains about a grain of caffein. In making coffee three groups are extracted by the hot water: Volatile oil, the aroma or coffee flavor; the active caffein and the fixed extract, the brown substance in the cup containing a small amount of caffein and a large amount of extract.

Thein and caffein act directly on the system and satisfy the human demand for a mild nervous tonic. The researches of travelers have shown that every people, be they in one hemisphere or the other, have these nerve-exciting beverages, and though different in form, color and method of use, they are composed of elementa with the same base—caffein. The higher intellectual development of the past few hundred years with the tension of nervous energy of the times, is doubtless the cause of the general use of these beverages, which have a mild stimulating effect on the nervous lassitude of the age. The various varieties of tea were spoken of briefly, the strong effect of the green variety being attributed to the excess of the principle therein. The particular effect and use of tannin in the leaves was also alluded to. The composition of tea was: First—A volatile oil, which passes off as aroma in the preparation of tea. Second—The principle therein, and third, a fixed extract which is mainly tannin. The boiling of tea was stated to be absolutely objectionable. The Japanese date tea back to the eighth century and Chinese still further, but it is not believed that the knowledge of tea extended in time anterior to the first mentioned century.

Interesting Facts.

A blind boy had become thirteen years of age when his eyes were touched by a surgeon. He thought scarlet the most beautiful color; black was painful. He fancied every object touched him, and he could not distinguish by sight what he perfectly well knew by feeling, for instance, the cat and dog. When his second eye was touched, he remarked that the objects were not so large in appearance to thie as the one opened at first. Pictures he considered only partly colored surfaces, and a miniature absolutely astonished him, seeing to him like putting a bushel into a pint. Stanley, the organist, and many blind musicians have been the best performers of their time; and a schoolmistress in England could discover that the boys were playing in a distant corner of the room instead of studying, although a person using his eyes could not detect the slightest sound. Professor Sanderson, who was blind, could in a few minutes tell how many persons were in a mixed company, and of each sex. A blind French lady could dance in figure dances, sew, and thread her own needle. A blind man in Derbyshire has actually been a surveyor of roads, his ear guiding him as to distance as accurately as the eye to others; the late Justice Fielding, who was blind, on walking into a room for the first time, after speaking a few words, said, "This room is twenty-two feet long, eighteen wide, and twelve high," all of which was revealed to him with accuracy through the medium of his ear. Verily, "we are fearfully and wonderfully made."

A Baby's Soliloquy.

Some important hints in regard to the sick-room may be learned from the following soliloquy of a baby:

I am here. And if thie is what they call the world, I don't think much of it. It's a very flannelly world, and smells of paregoric awfully. It's a dreadful light world, and makes me blink, I tell you. And I don't know what to do with my hands; I think I'll dig my fists in my eyes. No, I wont. I'll scrabble at the corner of my blanket and chew it up, and then I'll holler. And the more paregoric they give me, the louder I'll yell. That old nurse pute the spoon in the corner of my mouth in a very uneasy way, and keeps tasting my milk herself all the while. She spilt snuff in it last night, and when I hollered, trotted me. That came of being a two days old baby. There's a pin sticking in me now, and if I say a word about it, I'll be trotted or fed; and I would rather have catnip tea. I tell you who I am. I found out to-day. I heard folks say, "Hush, don't wake up Emeline's baby," and I suppose that pretty white-faced little woman on the pillow is Emeline.

No, I was mistaken; for a chap was in here just now and wanted to see Bob's baby; and looked at me and said I was a funny little toad and looked just like Bob. He smelt of cigars. I wonder who else I belong to. Yes, there's another one—that's "Gamma." "It was Gamma's baby, so it was." I declare I do not know who I belong to; but I'll holler, and maybe I'll find out. There comes Snuffy with catnip tea. I'm going to sleep. I wonder why my hands wont go where I want them to.—*Sanitarian.*

The Influence of Song.

It has been said by a writer on the history of the Crimean war that the English soldiers upon very numerous occasions, worn out by fighting and weary of their fruitless toil, would, when night fell above the battle-field collect themselves around their camp fires, and, with hearts heavy on account of hopeless absence from home and kindred, shed many tears of despondency in view of the threatening struggles of the future.

At last, toward the close of that frightful conflict, when night again had closed upon a scene of unparalleled horror, and with ranks even more than usually thinned by slaughter, they had once more met to call over the names and numbers of friends then dead or dying, many a breast hitherto bold for battle now shrank from further fight, and many a veteran now breathed curses against the banner of his queen.

But, as here and there the lights burned low, and officers and men were dropping down to slumber, from the far boundary of the English camp came rising on the air the notes of song—it was "Annie Laurie;" and as it rose it gathered strength, for here a soldier caught it, and there another, and there another, until in one grand volume of sound the words of the beautiful chorus rolled above the weary army. Day soon dawned, and with the music of "Annie Laurie" in their hearts and on their lips one grand charge was made—many a poor soldier fell—but Sebastopol was taken.—*J. W. Dodd, in Home and School.*

READING AS A FINE ART.—Reading may be said to bear the same relation to written language that the art of executing music does to the science of composing it. Every true performer executes the works of the great masters in a manner peculiar to himself; grasping by instinct the hidden beauties of thought and poetry among the chords, he unfolds them to ears to which the familiar tunes sound like a revelation. The player creates nothing, he wishes to be nothing for the time being but the embodiment of the spirit of his master. It is precisely the same with reading. Happy is the reader who has attained that light in his art which causes his listeners to forget him in their absorbing interests in the thoughts and scenes he is laying before them. He is like a mighty conjurer who alone has deciphered the secret of spells, written perhaps years and years ago—written so that all may read, and who can, with a wave of his magic wand, conjure forth before our astonished gaze visions of life in every aspect, from the gigantic ambitions and passions of Lady Macbeth to the sweetest summer idyl that ever was written.—*The Liberal Christian.*

THE TALL MEN.—According to the report of the United States Sanitary Commission, it appears that this country, instead of being degenerate and inferior to the European races in point of physical perfection, is far the reverse. The figures adduced show that "the tallest men were from Michigan, Illinois and Wisconsin; the next tallest, New England, New York, New Jersey; and the shortest from Scotland, England, Germany." In weight, the men of Kentucky and Tennessee were the heaviest, averaging one hundred and fifty pounds, while those of England, Scotland, France, Belgium all average between one hundred and thirty-eight and one hundred and thirty-nine pounds.

A NEIGHBORING farmer gives this bit of advice, which contains a very good hit: "If you want the boys to stay on the farm, do not bear on too hard when the boy is turning the grindstone."

The Handkerchief Seventy Years Ago.

The handkerchiet, which is now an indispensable appendage of every lady's and gentleman's costume, is ot comparatively modern introduction. It was not very many years ago deemed a vulgar object, instead of a mark of neatness, as now.

Until the reign of the Empress Josephine, a handkerchief was thought, in France, so shocking an object that a lady would never dare to use it before any one. The word was ever carefully avoided in refined conversation.

An actor who would have used a handkerchief on the stage, even in the most tearfnl moments of the play, would have been unmercifully hissed; and it is only iu the beginning of the present century that a celebrated actress, Mlle. Duchesnoise, dared to appear with handkerchief in hand. Having to speak of the handkerchief in the oonrse ot the piece, she never could summon courage to call it by its true name, but referred to it as a light tissue. A few years later, a translation ot one of Shakespeare's plays, by Alfred de Vigney, having been acted, the word handkerchief was used for the first time on the stage, amid cries ot indignation from the audience. I doubt if today French *elegantes* would carry handkorchiefs if the wife of Napoleon I. had not given them the signal for adopting them. The Empress Josephine, though really lovely, had ugly teeth. To conceal them, she was in the habit of carrying small handkerchiefs adorned with costly lace, which she continually raised gracefully to her lips. Of course all the ladies of the court followed her example, and handkerchiefs have rapidly become an important and costly part of the feminine toilet; so that the price of a single handkerchief of the *trousseau* ot the Duchess of Edinburgh would make the fortune of a necessitous tamily.—*Phrenological Journal.*

How to Hang Pictures.

No picture ought to be hung higher than the hight of the average human eye when the owner of the eye is standing. It is the almost universal rule in our houses to hang pictures much above this lovel, and they cannot be enjoyed there. If the picture is a portrait, or if it has faces in it, its eyes should look as nearly into ours as possible; and if there be no such simple guide, perhaps a good rule will be to have the line that divides the picture horizontally into equal parts level with the eye. If one starts in hanging pictures with the determination to place them where they can be easily seen and enjoyed without stretching the neck the least, or stooping the body, he will be pretty sure to do well. In remote tarmhouses and country taverns we often see pictures, particularly portraits, skyed as high as if their owners had been academy hangers, and the painters young rivals of a new school. I suppose the reason is that the simple-hearted owners think a picture such a precions thing it can't be hung too securely out of the reach of meddling hands. They are often not clear in their minds as to what a picture is meant tor, and not finding in it any practical relation to human life and society, they treat it with reverence and put it where it will disturb them as little as possible. But, as people come to enjoy pictnres and get some in ellectual, spiritual nourishment out of them, they want them as they want their books, where they can see them and use them.—*N. Y. Tribune.*

Gin and Aloes.—A few mornings since the conductor of a train which daily brings to our city many of our substantial business men, who reside in the southern part of the state, asked one of the patrons, who is something of a farmer, what he gave his pigs when they were troubled with worms. "Gin and aloes" promptly responded the persou questioned. This morning the conductor, as he entered the smoking car, approached his former advisor and told him that the dose which he had recommended had been given and the pig had died. "Nothing strange about that," responded the other, "I gave it to five of mine and all of them died." "Why didn't you tell me so?" said the conductor. "Because you didn't ask," replied the other, and then such a roar as went up from the inmates of that car has seldom been heard on that line.—*Providence Press.*

The Future.—The more we think of the stato after death, the deeper is the awe with which we must contemplate it; and sometime in weakness we long for the happy, bright imaginations ot childhood, when we saw the other world vividly pictured, a bright and perfect copy of the world in which we now live, with sunshine and flowers, and all that constitute our earthly enjoyment. In aftor life we strive to trans'ate these images into something higher. We say all these we shall have, but in some higher form. All this beauty around us is perishable; its outward form and substance is corruption; but there is a *soul* in it, and *this* shall rise again.

Very few ladies know how serviceable they may make the faded roses of a bouquet. For their future knowledge is this told. By placing the leaves in a dish and adding a few drops of alcohol a delicions odor is diffused through the room. In England, especially, this mode is quite generally adopted, very large flower vases being used as receptacles, and they are frequently half filled with these dried flowers. The flavor of rose may be given to cake by placing the butter used on a plate in a covered jar of the leaves prepared in this way.—*Ex.*

Young Folks' Column.

"He Says He Will."

One bitterly cold winter a poor woman, who had been struggling against illness and poverty, was left without a shilling in the world. With many tears she was obliged to tell her little boy, who was her only son, that she could give no breakfast that morning, for she had not a loaf of bread in the house. She was therefore very much snrprised when, after having beeu out of the room, he presently returned, and began (which he always did) to lay the little white cloth on the table, get out the plates and cups, and put everything in readiness for breakfast.

"Why, Frank," said his mother, "what are you doing that for? Did you not hear me say that we have not a bit of bread in the house?"

"Yes, mother, but I have been asking God to send us some, and I know he will hear me, because you know, mother, he says he will," answered the little boy, with a cheerful smile.

This answer cheered the poor widow's heart, and she remembered that God has promised to provide. Men may break their promises, but God never does.

Presently they heard the sound of a horse's feet coming up the road, and going to the door, Frank perceived a gentleman slowly leading a horse along. He stopped at the little wicket gate and said:

"Look here, my boy, my horse has lost two shoes, and I have still 12 miles to go; take him to the blacksmith's shop over the way, and when you have brought him safely back I will reward you for your trouble. Will you allow me to rest in your cottage in the meantime?" he added to the poor widow, who appeared in the doorway.

"Surely, sir," she answered with a courtosy, "and welcomo, too," and hastened to set a chair tor the gentleman. They soon got into conversation. "I am afraid I am keeping you from your breakfast, my good woman," he said, seeing that there was nothing on the table but plates and cups, "pray do just as if you were alone." And he pressed her so much that the poor woman was at length obliged to tell him tho true state of the case. When little Frank came back with the horse the gentleman mounted quickly, and rode off, having first dropped a five-shilling piece into the boy's hand. "You shall hear trom me again," he said, as he galloped away.

O how eagerly Frank ran in-doors, to show his mother what God had sent him! What was his surprise when, with tears of joy, the poor widow held up a bank-note, exclaming, "O my child, how could I doubt the Lord tor one moment! You were right, you were right, my boy!" And the happy mother, and still happier son, knelt down and returned thanks to their heavenly Father for his goodness to them.

O that we *all* had this dear boy's faith in God's promises. Then, indeed, should we find the truth of David's words: "The Lord God is a *present* help in time of trouble."

Washington's Birthday.—One hundred and forty-four years ago, last Tuesday, a little boy lay in his infant dress in a world upon which he had just entered, about which he knew nothing, but upon which it was destined that he should exert a greater and more beneficial influence, perhaps, than had any human being that had ever lived. All this may be received with a doubt, however, because of our finite minds, and it would require the infinite to gauge and determine how tar the nations and centuries ot the tuture are to be swayed and influenced by theprinciples of which that little boy was to be the representative. But that the influence of Washington is to be unending and ever in the line of the best interests ot humanity, can scarcely be doubted. His tame and influence have had probably their lowest ebb. Things are ou their flood now, and will continue. For this was one of the "immortal names that was not born to die." And as it recedes into the past, the grand proportions of the great man, and particularly of the great patriot, will appear yearly greater and more glorious. If he had any errors of character, as the best have, they will cease to be remembered, as the spots on the sun are not visible to the human eye, because of the great glory of the luminary.

Childhood.—Children are but little people, yet they form a very important part of society, expend much of our capital, employ a great portion of our population in their service, and occupy halt the *literati* of our day in labors for their instruction and amusement. They cause more trouble and anxiety than the national debt; the lovelier of women, in her maturity of charms, breaks not so many slumbers, nor occasions so many sighs as she did in her cradle; and the handsomest of men, with full mustache, must not flatter himself that he is half so much admired as he was when in petticoats. Without any reference to their being our future statesmen, philosophers, and magistrates in miniature disguises, children form in their present state of pigmy existonce a most influential class of beings; and the advent of a tiny creature which can scarcely open its eyes, and only opens its mouth, like an unfledged bird, for food, will effect the most extraordinary alteration in a whole household, substitute affection for coldness, duty for dissipation, cheerfulness for gravity, and unite hearts which time had divided.—*Ex.*

Good Health.

Some Causes of Nervousness.

Imperfect and insufficient sleep is one of the most trequent causes of nervousness. In Realmah, that strange country which Sir Arthur Helps so quaintly describes, "tired nature's sweet restorer" could be bought in three grades of different prices, the costliest one being of a pale blue color. Partaking of this, the happy buyer sank into a profound and dreamless sleep, while the cheaper kinds procured only the lighter forms of rest, haunted by dreams and distnrbed by thick-woven fancies. Next to air sleep is the greatest need of man. "Who sleeps eats," says the ancient proverb. Food and drink may be diminished without fatal results, but want of sleep is followed by insanity and death. Those who suffer from nervousness on account ot insufficient sleep should lose no time in correcting the evil. Everything calculated to excite the brain or disturb the nerves for two or three hours before bedtime, such as stimulating beverages, hearty food, exciting conversation or literature, should be rigidly avoided. It is said that half a dozen small onions eaten just betore retiring will act as a harmless anodyne, and induce profound and refreshing sleep.

Another fruittul cause of nervousness is bad air. Many a child grows pale and sickly from attendance, as is snpposed, at school, and the parents think the child is studying too hard. In a large majority of such cases the evil results are the consequences of the impure air the child breathes, and would not follow twice as severe mental application in a room thoronghly and oonstantly ventilated. Doubtless a large part of the teachers who "break down" in teaching do so because of the bad air they breathe from day to day. Many a housekeepor would escape attacks of nervousness if she kept the windows up and tho doors open, aud let the sunlight pour into her rooms with healing in its beams.

Another cause of nervousness is indulgenoe in strong tea and coffee. The person who depends on his coffee as the main article of breaktast will be sure to eat less nutritious food at that meal than if his beverage were cold water; the nerves, only stimulated, bnt not fed, will by and by mutiny. The strength which comes from stimulating driuks of all kinds is fictitious, not real; it is a draft on the future that will be some time be presented for payment to an empty exchequer. *Delirium tremens* is nothing more than the cry of the wronged and cheated nerves for food.

Overwork often produces nervousness, and the cure is rest. Many people think they must go on killing themselves by slow degrees in this way, and when they have succeeded, lookers-on are no wiser than before, but keep on taxing themselves beyond their strength and paying the penalty. Of all the causes of nervousness the most prolific is *worry*. If, having done our best, we could only leave the consequences to the Higher Powers; if we could but be content to take life as it is and make the most of it; to do the duty of the hour promptly and with fidelity and think no more about it; to open our hearts to all tho gentle influences of nature that woo us, and enjoy without murmur or question the good and the evil that fall to our lots, confident that they are alike beneficial, to live aright in the present and leave the future to God, what a world ot trouble and anxiety we would be saved! Plenty of sleep, plenty of air, pleuty of food, and an abounding trust in the goodness of God will keep those who enjoy these blessings from the tortures of nervousness.—*N. Y. Tribune.*

Bicarbonate of Soda a Toothache Remedy.

Dr. Buckworth, of St. Bartholomew's hospital, London, has recently successfully used bicarbonate of soda as a remedy for severo toothache, when applications of chloroform, either externally to the cheek or to the ear, or placed on cotton in the decayed tooth, failed; and when carbolic acid, applied as last mentioned, also proved inoperative. Pledgets of cotton soaked in a solution of 30 grains ot bicarbonate of soda in one fluid ounce of water gave almost instant relief. Dr. Buckworth considers that very frequently the pain is due to the contact of acid saliva with the decayed tooth, and therefore it is important, in cases of odontalgia, first to determine whether the saliva has an acid reaction. If this be the oase, then a simple alkaliue application, as above stated, is the most efficacious means of cure.

Cases of toothache are such common accompaniments to disordered stomach that there seems every reason for the truth of the above author's oonjecture. Doubtless on the same ground is due the efficacy of ammonia, so frequently recommended, but which, if applied carelessly, is liable to produce more pain by burning the gum than already exists in the ooth.

Bicarbonate of soda is found in every kitchen, and hence no more handy remedy could be devised, while it is destitute of any painful effects; and the *rationale* of its operation and its implicity make us wonder why it has not been hought of before.

Domestic Economy.

How to Wash Dishes.

Faith Rochester writes in the *American Agriculturist:* I dislike greatly to wipe dishes that have not been drained trom clear hot water. Yet I seldom see any one wash and wipe dishes in my way. Usually the dishes are washed in suds, and then are either passed immediately through hot water and wiped by an assistant, or they are piled up and afterward are turned down in a dish-pan as though to drain them (over their backs), after which each is taken from the rinsing water and immediately wiped without previous draining. In either oase the wiping cloth is made quite wet, and sometimes two or three are needed for the operation. I think it is a saving of labor, on the whole, to drain the dishes, though one has to use a common dish-pan for it, as I do. There is no other comfortable proocss if children do the work. A little girl, six years old, washes and wipes all of my breakfast dishes, and usually wipes the dinner dishes tor me. She kneels in a chair at the dish-table and does her work very satisfactorily. I first wash the pans and stone or iron dishes, all of the big, awkward, or very sticky utensils, and my rinsing water serves as her dish water. I get the work all ready for her, placing the plates in the bottom ot the dish-pan, with saucers, cups, etc., at the top, and knives, forks, and spoons stuck in around the sides. When I call her to the work, she finds these dishes soaking in warm water, with a clean, orderly table to pile them upon as she washes them. Sometimes I get the rinsing water for her from the stove reservoir, but if I am busy she gets it herself, if able to empty the big dish-pan of the dish water. The big pan is used for draining the d shes, after being wiped out clean with the dish-cloth. The rinsing water is in another pan, and the washed dishes are run through it, cups first, then bowls, saucers, plates, etc., and are all turned down to drain in the dish-pan. They dry very fast, and the wiping cloth is scarcely damp when the work is done. Some good house keepers wipe the dishes directly from the first suds, but that never seems to me a clean way of doing.

"I always scald my dishes," boasts one, but I happen to know that her dishes are usually streaked or sticky when put upon the shelves, because she "scalds" them in such an absurd manner, turning them all down in her pan, and pouring hot water over the backs ot her dishes, leaving the faces of the plates and other dishes unrinsed, while the heating they get trom the hot water on their backs dries the suds or greasy dish water in streaks, which do not all wipe off; and so the wiping-towels get quickly soiled.

A Royal Dish.

I lately saw a picture and a description of a dish said to be greatly relished by Emperor Dom Pedro, from whom it derived its name. Now, I had no such pan or dish, but I was determined to contrive one. Therefore, I went to the kitchen press, took down the steamer—its bottom is loose, and can be taken ont—took out the bottom and found that it would just fit the top of our smallest frying-pan or spider. Next day I contrived to have too many potatoes for dinner; these I placed on the steamer-bottom, making a smooth pyramidal shape of them, placed a bit of butter upon them, then put the gravy and meat scraps left from dinner in the spider, added a little water, and put the potatoes and steamer-bottom upon this and placed all in the oven of the cook stove. At supper my makeshift dish was heartily partaken of and praised, and I presume was as good as if I had possessed the real "Dom Pedro dish" to cook it in. The potatoes were baked a nice brown, the meat and gravy warmed over nicely, and the steam from the meat had gone into the potatoes, making them better than if baked in a pan.—*Carrie Lee, in Am. Patron*

To prevent flat irons from rusting, melt one-fourth ounce of camphor and one-half pound of frosh hog's lard over a slow fire, take off the scum, and mix as much black lead with the composition as will bring it to the color of iron. Spread this over the articles for which it is intended. Let it lie for 24 hours, and then rub it well with a dry linen cloth. Or smear the irons over with melted suet, and dust thereon some pounded unslaked lime from a muslin bag. Covor the irons with baize in a dry place whon not in use.

Ginger Cakes.—Rub a quarter of a pound of butter into half a pound of flour, mix one egg, three ounces of powdered loaf sugar, and half an ounce of ground ginger with the butter and flour, and make them altogether into a paste; roll it out a quarter of an inch thick and cut it into round cakes, about two or three inches across; bake them in a warm oven, on iron plates.

A Good Gravy.—Chop fine some lean meat, an onion, some slices of carrot and turnip, and a little thyme and parsley; put these with half an ounce of butter into a saucepan, and keep them stirred until they are slightly browned; add a little spice, and water in the proportion of a pint to one pound of meat. Clear the gravy from scum, let it boil half an hour, and then strain it for use,

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—

	1 week.	1 month.	3 months.	1 year
Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Prompt Subscriptions.

We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, February 26, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Big Box, Little Box, Bandbox, Etc.; Yellowstone Falls; Prosperity in Placer County, 129. Plant Trees; The Dairy at the Centennial; Hillside Irrigation, 136. Botanical Wonders of the World; The Chufa or Earth Almond, 147.

ILLUSTRATIONS.—Lower Yellowstone Falls, 129. Grape Tree of Tree of Ten Thousand Clusters, 137

CORRESPONDENCE.—Around Santa Barbara; A Mill That Beats Minnesota, 130.

POULTRY YARD.—Hatching—Care of Young Chickens; Another Poultry House; Bronze Turkeys, 130.

BEES.—Bee Keepers—Introducing Queens, 131.

SHEEP AND WOOL.—The Breeds of Sheep, 131.

THE HORSE.—How Mr. Gibbon Trained His Colts; Exportation of American Horses, 131.

THE VINEYARD.—Points on Raisin Making; How to Make Good Wine, 131.

PATRONS OF HUSBANDRY.—A few Words to Sister Grangers; The Order in England; Minimum Dues; What a Little Practical Co-operation did in Ohio; Noising Family Matters Abroad; The RURAL PRESS the Farmers' Friend; Encouraging the Despondent; Election of Officers, 132.

AGRICULTURAL NOTES from various counties in California, 133.

HOME CIRCLE.—A Memory (Poetry); Thoughts on "The Mission of the Press;" Home; Domestic Beverages; Interesting Facts; A Baby's Soliloquy; The Influence of Song, 135. The Handkerchief Seventy Years Ago; How to Hang Pictures, 135.

YOUNG FOLKS' COLUMN.—"He Says He Will;" Washington's Birthday; Childhood, 135.

GOOD HEALTH.—Some Causes of Nervousness; Bicarbonate of Soda a Toothache Remedy, 135.

DOMESTIC ECONOMY.—How to Wash Dishes; A Royal Dish, 135.

HORTICULTURE.—Cherry Culture—No. 3; Points in Pruning, 138.

USEFUL INFORMATION.—Hints on Familiar Things; Another New Electric Battery; A Simple Way of Procuring Fresh Water from Sea Water; Preserving Wood by the Application of Lime, 138.

MISCELLANEOUS.—An Arsenic-Proof Stomach; Measuring by the Eye, 138. Nevada County and Its Prospects; Killed by a Mouse, 142.

NEW ADVERTISEMENTS.

Duryea's Starch, Egerton, Allen & Co., S. F.; Fruit Trees, D. E. Hough, Vacaville, Cal.; Nursery, F. K. Phœnix, Bloomington, Ill.

The Week.

At last the weather for work has come and everywhere there is activity in field and garden. Still there is much land in some of the counties which will not yet work well, but each day like the few last hastens its fitness. Our interior exchanges enable us to mirror the many ways in which the agriculture of the coast is advancing, and by our view of the whole field the farmer sitting in his home may contemplate the progress of the State and find in the accounts of others' doings, hints which he can apply to his own.

Our readers continue to give us almost unbounded encouragement to pursue our labor as we are now doing it. We take spirit and strength from such encouragement and push onward.

TO OUR PATRONS IN SACRAMENTO.—Dr. J. T Johnson, of Maryland, formerly connected with the press at Richmond, Va., will visit Sacramento in the interests of this journal. Readers may soon expect some notes of industrial and other news from that section. Our friends in that and other places which he may visit will do us a favor by assisting him in his efforts on behalf of the PRESS.

Plant Trees.

The State has been soaked from Del Norte to San Diego. Everywhere the soil is saturated with growth-giving water. It is a peerless time to plant trees. It is a season when all the advantage is on the side of the tree and of the man who plants it. The tree properly planted is almost sure to grow this year. Therefore plant trees.

Plant trees in waste places. Let the wilderness blossom like the rose with rows of graceful trees. If there be a spot of ground which the field tool cannot reach, plant a tree there. If there be a heap of rubbish on the place, it cumbereth the ground; fire it and let a tree play phœnix from its ashes. A waste place is either nothing or worse, a tree is certainly something or better. Therefore plant trees.

Plant trees for timber. The needs of the present generation are playing sad havoc with the forests. They came to us as an inheritance from our forefathers or as the natural wealth of the land. To destroy them, and do nothing toward replacing them, is to leave the world worse than we found it. Who wishes for his children a harder lot than his own? Rather let us lay the foundation of posterity's progress. Suppose their progress in all useful arts and triumphs of enterprise should surpass ours as ours have those which existed before our day, what can they do if we leave them nothing but underbrush? What use is a pile driver if a man have nothing but shoe pegs? Oh no, let us not place limits on the future. Let us give them the chance we have had. Therefore, plant trees.

But though we believe in doing something to prepare a goose for future killing, there will be eggs in our own time. We cannot build a ship of timber of our own planting, but we can be warmed by such a growth; we can fence in our lands with it; we can, if we are young, grow the timber which will form a roof over our heads before we die. If we are young and now laying the first stone of our fortunes, we may also set a growing the rafters of the mansion which success will give us. Therefore, plant trees.

Plant trees for shade. Shade is not only comfort but in many cases it is life. It cools the fevered brow, it restores the waning energies. On the farm, shade is profitable. Shade in the pastures enables the cow to obtain that quiet comfort which conduces to the most perfect secretion of her milk. It protects the fatting animal from a fuming condition and tends to perfect assimilation. The most famous stock farms of the older countries are noted for their grateful, shady nooks, where quiet and comfort foster growth in the animal. Therefore, let our stock growers plant trees.

Roadside trees cool the passing traveler. They beautify the landscape with a line of living green. They break the sweep of the winds. They are a beauty in themselves and beautiful in all their influences. Plant trees by the roadside. Plant them each one beside his ranch. Let neighborhoods form tree planting societies. Many a barren roadway in New England has been reclaimed and embowered by the tree planting societies.

There is no better field for tree planting by societies than on this coast, and there is no better time than now. Everything is favorable. The season, as we have said, invites the planting. There is now such a competition between our nurserymen that trees can be bought in large quantities at very reasonable rates.

It will be a misfortune if these establishments are not thoroughly unloaded while the spirit of selling is upon them. There are hundreds of acres of cheap lands, hill lands and tule lands, which might be cheaply covered with useful growths. No village plaza or street should be denied a generous tree planting. Nothing gives a town such a name for beauty as fine walks and beautiful trees.

Plant a variety of trees. The blue gum is unrivaled for quick growth, and most beneficent in its effect when grown in miasmatic sections. It is worthy the wide planting which it is receiving. But we should crown our State with every variety of forest growth which will thrive. It will be a crown of glory while we live, and a deed for which mankind yet to come will call us blessed.

NEW DITCH.—The Grass Valley *Tidings* says: The new ditch, to be taken from the Yuba and carried around by the head of Clear creek to Smartsville and Sucker Flat, is talked of by the farmers in Penn valley as sure to be built this season. It is contemplated to make this ditch of capacity to carry 5,000 inches of water and under that there will be water to fill it even at the dryest season.

ON FILE.—"Cherry Culture," San Jose; "Notes from Mariposa County," W. T. E.; "Oil of Roses," J. J. H.; "Jersey Cows, etc.," E. B.; "Fruit Ladder," J. B.; Inquiries from San Diego and Bent Co., Colorado.

THE SOIL AND THE GRAIN.—Ten pound samples of Salinas valley soil, together with statements of the grain yield on the class of land represented by each will be sent to the Centennial.

The Dairy at the Centennial.

There is now arising among the dairymen in the Eastern dairy regions a brisk movement for the creditable representation of the industry at the Centennial exhibition. Funds are being collected for the erection, on the Centennial grounds, of a sample cheese and butter factory. The most approved operations of cheese and butter making will there be shown, from day to day, in actual working. The whole dairy community of the East seems aroused and interested in the enterprise. The States of New York, Vermont, Massachusetts, Ohio and Illinois have approved it at their dairy conventions, which were held during the last month. It seems certain that the great dairy interest of the United States will be represented in a way creditable to its extent and importance.

The movement for a dairy display at Philadelphia is not sectional. Every dairy farmer in the country is invited to contribute any amount he sees fit, however small, toward the fund necessary to construct the combined cheese and butter factory. A committee has been appointed, with members in all the dairy States, to secure contributions for this purpose, and Centennial stock will be issued to all who contribute the amount of one share, ten dollars.

A good showing of her dairy quality and capacity will perhaps be more direct advantage to California than to many other States. We know that in the dairy districts of the East there are many enquiring eyes turned toward California. There is an excess of skilled labor in some of the old dairy States, and there is a disposition to seek new fields. There are many dairy farmers possessed of working capital who are anxious to invest where the returns from the herds and dairy factories will be greater than in their old homes. To such men, who are ready and able to build up a dairy success, under favorable conditions, we believe California offers the finest field in the country. We believe also, that a good show of California dairy products, as evidence of the capacity of the State in that direction, will be the best possible method of satisfying the Eastern dairymen that skill and a small working capital will assure them success here. They have heard of our butter, than which better is not produced in the country. Samples of it in fine packages should be placed on exhibition in Philadelphia, so that it can be compared with the Eastern make. Our favorable locations for cheese making should also be shown by the best samples. This is a matter which does not require an appropriation. It is an enterprise in which every dairyman in the State can take an interest if he will. If he desire to contribute something toward erecting the dairy building, in which the samples from all the States shall be displayed, side by side, he may do so. If he is not prompted to do this he can certainly take steps at once to prepare for exhibiting samples of his product. By showing our actual success in dairy manufacture we can convince Eastern dairymen of our dairy advantages better than by writing volumes about it. Who of our dairy ranchmen will fix an honorable name upon his product, by displaying it at the Centennial? Who will do this for his own good name and for the advantage of the whole State? It is a matter for individual enterprise and action. Who will act?

The display of dairy products has been placed by the Centennial authorities in the hands of a committee appointed by the American Dairymen's Association. Edward J. Wickson, of the PACIFIC RURAL PRESS, has received notification of his appointment as member of that committee, for California. He will be pleased to confer with any dairyman who will interest himself in the matter we have described, and to do everything he can to aid in arranging displays of dairy products, which we conceive will be of great advantage to the individuals making them, and to the State.

Hillside Irrigation.

According to the report of the Agricultural Department for February the question of irrigation has lately received some valuable attention at the hands of Mons. A. Le Play, who has made the utilization of drainage waters from springs and the superficial waters accumulated during heavy rainstorms a subject of special study. His object was not only to utilize the water for the purposes of irrigation, but also to prevent excavation of ravines on inclined surfaces, by removal of large quantities of soil by the immense accumulation of water during the storms.

For this latter purpose he proposes to construct inexpensive trenches at regular intervals along the side of the hill, to collect the water at a given surface, to prevent an accumulation forming heavy streams and to carry the water thus collected to the meadows requiring irrigation. The soil of the hillsides, being composed principally of disintegrating and decomposing rocks, generally contains considerable quantities of lime, potassa, phosphoric acid and nitrogen, and these matters, by the drainage and surface waters, may be distributed at will upon parts most needing them, while, if they be allowed to follow natural channels, they must be in great part lost in the lands of the immediate vicinity.

Monsieur Le Play claims, as an advantage of this mode of irrigation, that it avoids the possibility of close soils, the surfaces of which are considerably inclined, being cut up by large streams of water consequent upon heavy rains, and that therefore, independently of its importance in irrigating meadows, it very materially facilitates the cultivation of mountainous regions.

He conducted a series of analyses, the results of which, though forming a sound basis for his important deductions, have a local importance, and are therefore not suitable for abstraction. They show, however, that the richness of the waters thus collected varies according to the season, the inclination of the soil, the conditions of culture and especially according to the conditions governing the system of manuring the fields through which they have to pass. He also found that the proportion of material of value as plant food annually removed by water collected in these trenches was far greater than could possibly be removed by the growth of different varieties of vegetation.

The Actual Cost of Wheat.

Two weeks ago we wrote an article on the cost of producing a bushel of wheat in Minnesota, and asked our California growers to give us the figures to make a comparison between California and Minnesota. We have received in reply the following letter with statistics from Mr. L. Taber, of Yolo county:

EDITORS PRESS:—In response to the call for statistics in regard to grain raising in California in comparison with Minnesota for 1875, I give you my notes for 1874; the showing for me in '75 is a little better, owing to prices; the differences in price with me in 1875 made up the difference in quantity between 1874-5. In 1874 I paid storage and insurance and then sold for $1.40 per 100 pounds; in 1875 I sold for $1.95—no storage. I am glad to see you call on the farmers for statistics as regards farm expenses, and hope to see a response from every county in the State.

42 Acres Winter Plowing.—Expenses.

Plowing 42 acres at $2 per acre	$ 84 00
3,300 pounds Seed at $1.75 per cental	57 75
Sowing at 14 cents per acre	5 88
Harrowing	43 00
Heading	63 00
Stacking	4 00
296 sacks at 12½ cents apiece	37 00
Twine	1 00
Threshing 35,840 pounds	53 76
Hauling to Market	53 00
Storage and Insurance	20 00
Interest on Land	75 60
Total	$497 99

Cost per acre, $11.85.6.

Receipts.

Cr. by 35,840 pounds at $1.40 per cental	$501 76
Cost per 100 pounds	$1 38.9
Cost per bushel	83.3 cents

You will see by this that it takes over 14 bushels to pay expenses of growing an acre.

13 Acres Summer Fallowed.—Expenses.

Plowing at $2 per acre	$ 26 00
700 pounds Seed at $1.75 per cental	12 25
Sowing at 14 cents per acre	1 82
Harrowing	13 50
Heading	19 50
Stacking	2 00
Threshing 30,381 pounds	45 07
247 Sacks at 12½ cents apiece	30 87
Twine	50
Hauling to Market at $3 per ton	45 00
Storage and Insurance	16 00
Interest on Land	23 40
Total	$235 91

Cost per acre, $18.

Receipts.

Cr. by 30,381 pounds of wheat at $1.40 per ctl.	$425 23
Cost per 100 pounds	77.8 cents.
Cost per bushel of 60 pounds	46.5 cents.
Percentage on investment	80.2 cents.

65 Acres Volunteer Wheat.—Expenses.

Seed, 3,080 pounds at two cents per pound	$ 61 60
Cultivating, 11 days, (man and six horse team,) at $7 per day	77 00
Four and a half days harrowing at $7 per day	31 50
Heading 65 acres at $1.50 per acre	97 50
Stacking	9 00
1,028 Sacks at 12½ cents apiece	128 50
Twine	4 00
Threshing 127,847 pounds	191 77
Hauling to Market	190 00
Storage and Insurance	75 00
Interest on Land	118 00
Total	$983 87

Cost per acre, $15.15.1.

Receipts.

By 127,847 pounds wheat at $1.40 per pound	$1,789 85
Cost per 100 pounds	76.9 cents.
Cost per bushel of 60 pounds	46.1 cents.
Percentage of Profit	82 per cent.

We are informed by J. D. Peters, of Stockton, the well known wheat merchant, that the estimated cost of an acre of wheat on the sandy land in his section is about $8, and on heavy land about $15. We shall be pleased to receive careful reports of the cost of wheat production from our readers in any grain growing locality. If farmers would practice closer figuring on their operations they could proceed more confidently.

PERSONAL.—We learn from a personal note that Mrs. J. Preston Moore, a true friend of the RURAL PRESS, is on the point of extending her travels from Paris into Italy. Mrs. Moore promises to let us hear from her if she finds anything in Italy of interest to our viniculturists. We sincerely hope she will find it.

Botanical Wonders of the World.

King Solomon spake of trees, from the cedar that is in Lebanon even unto the hyssop that springeth ont of the wall. But Solomon, in all his glory, did not enjoy the pleasure of seeing such noble kings of the forest as the *Sequoia gigantea*, of California, which are only fonnd in the Sierra Nevada, in comparison to which the noble cedars of Lebanon are mere saplings. Both the *Sequoia gigantea*, or big trees, and the cedars of Lebanon are cone bearing evergreens.

California may well be proud of her extensive groves of mammoth trees, as they are found in no other quarter of the globe. But, so far as isolated instances of trees of gigantic proportions are concerned, she is surpassed by several foreign countries.

The Fig Tree of Australia.

A fig tree which stands on the northerly bank of the River Johnstone, East Australia, near Brisbane, three feet from the ground measures 150 feet in circumference, and at 55 feet sends out branches 80 feet in circumference.

The Chestnut Tree of Sicily.

But the great king of trees is "The Chestnut Tree of a Hundred Horses," situated near Muscoli, at the foot of Mt. Ætna, in Sicily. This is said to be the largest and one of the oldest trees in the world, and received its name from the following incident: Queen Jane, of Aragon, with her principal nobility, took refuge from a violent storm under its branches, since which it has been noted as "The Chestnut Tree of a Hundred Horses." Five enormous branches rise from the trunk 204 feet in circumference, the intervals of which are of various extent.

In Bouyouderch, near Constantinople, they boast of a tree 149 feet in circumference.

The Sequoias.

California is thus surpassed by these three isolated trees, each of which is in a different country, yet so far as large groves or forests of the *Sequoia* or other mammoth trees are concerned, she is unrivaled.

We might have named the immense cypress tree of Oaxaca, measuring 117 feet in circumference; the famous lime tree of Norfolkshire, 48 feet in circumference, and many others of less note, but all of these are outranked by such trees as the Grizzly Giant, the monarch of the Mariposa grove, consisting of 427 mammoth trees, the largest of which are 30 feet in diameter and over 300 feet high. One of these, which is down, is supposed to have been 40 feet in diameter and over 450 feet high.

One of the notabilities of this place is the "Horseback Ride," which is a hollow trunk of a tree, through which a man can ride 75 feet on horseback. One of these was bored down by five men in 22 days. It was 92 feet in circumference, and on its stump a newspaper called the *Big Tree Bulletin* was published for some time, after which a dancing pavilion was erected thereon, which still accommodates dancing parties. Here is a tree called "Uncle Tom's Cabin." All the largest trees are named in honor of some noted general or other famous character.

The Tulare-Fresno forest consists mostly of big trees, some of which are 120 feet in circumference, and this forest is said to be 70 miles long and 10 wide.

As sections of these trees and cones from all cone-bearing trees of the State, will be on exhibition at the Centennial, at Philadelphia, many who may now doubt the statements will be convinced beyond a reasonable doubt that California is remarkable for her forests of the largest and most beautiful coniferous trees in the world, among which are the *Sequoia gigantea*, the redwood, the sugar pine, the red fir, the yellow fir and the arbor vitæ.

The Grape Tree of 10,000 Clusters.

Last but not least, is the great celebrity of Southern California, of which we present a new illustration this week. It is the famous "grape tree," called the Mammoth Grapevine of Santa Barbara, which resembles a large tree far more than a vine, on account of its immense trunk and limbs, under the shade of which over 2,500 persons could be seated. On account of its marvelous annual crops of grapes during a period of about a century, until the time of its death, it may now well be honored with the title of "The Grape Tree of 10,000 Clusters," which was, according to the best authorities, the amount produced in a single year, the crop being annually not less than 7,500 clusters, equal to six tons of excellent Mission grapes.

This vine will also be on exhibition at Philadelphia during the Centennial, and it will represent California more effectively than any other product of the State. Being well-known as the largest and as having been the most prolific vine in the world, it will attract the attention of all civilized nations to the genial climate and productive soil of California, the home of the vine and the favored land of the grape.

This vine is also noted for its romantic history, its origin being connected with the incidents of an interesting love tale, according to the traditions handed down through several generations of its Spanish owners. These traditions were made the subject of a romance, entitled "The Legend of the Montecito Grapevine," which first appeared in the *Overland Monthly* magazine, and the story was made popular by extensive publication by the newspapers. The fame of the vine is world-wide; and for a quarter of a century it has attracted tourists from all parts of the globe, who were astonished by this great wonder, and always gave glowing accounts of its marvelous productiveness and its gigantic proportions.

The late Hon. De la Guerra, and Dr. Ord, one of the State Centennial commissioners, have claimed the honor of first making known to the world the history of this vine. In 1858 the former published an article in a Santa Barbara paper, giving a description of the vine; and the latter, the same year, gave an account of it in *Harper's Magazine*, which was extensively copied by the leading papers of that day.

The vine possessed great charms for the Spanish people, who had a large dancing floor under one side of it, and here they were attracted from all parts of the country, to enjoy themselves according to the customs of their country. And it was equally prized by the American population, who had long been accustomed to point it out to friends and tourists as the chief curiosity of this land of wonders. Indeed, the citizens of California generally took great State pride in the vine, and hence there was a universal expression of regret at its death. The old associations connected with its romantic history, so often related, made it highly prized by all.

The public estimation in which it was held at home will appear from the proceedings of a

THE GRAPE TREE OF TEN THOUSAND CLUSTERS.

meeting of the citizens of Santa Barbara for the purpose of expressing the sentiments of her people regarding the character and death of the vine. Accordingly, a statement of its history, and resolutions expressive of a general feeling of regret at its loss were adopted, and published in the Santa Barbara *Press*, Sept. 10th, 1875.

Still Onward.

Again we devote a few lines to a showing of hands in our favor, and expressions of assurance that we are still improving:

A lady correspondent writes of her husband: "Mr. L. is extremely critical of papers and authors, but he declares that the RURAL PRESS is growing brighter and better all the time."

E. B. writes from Monterey county: "Compliments to the RURAL PRESS seem the order of the day. The externals (cutting and stitching,) have already had their share; let me congratulate the RURAL PRESS upon the acquisition of the new editor, Mr. Wickson, the improver of the matter, as the new machinery is of the manner of the paper."

WEST SIDE IRRIGATION.—The West Side irrigation bill has passed the Assembly by a vote of 60 to 6. There were a number of amendments made in the bill as presented, but its main features were preserved. It now remains to see what action the Senate will take. If the bill prevail, we shall print for our readers the enactment in full, that all may see what is provided for.

A NEW CHEESE FACTORY.—A. B. G. informs us that Wm. White, an enterprising farmer living one-half mile from Bloomfield, Sonoma county, has just completed his large cheese factory, and will commence making cheese about the first of March. We wish the new enterprise success. There is a fine field for it.

The Chufa or Earth Almond.

We can grow almonds in the ground as well as in the air, if we wish. A number of years ago there was introduced into this country through the agricultural department of the Patent Office some seeds (tubers) of the chufa or earth almond, and it has been successfully grown at the South and pronounced a valuable product. There has lately arisen demand for seed and the Report for the current month informs us that the Department of Agriculture at Washington has just ordered an importation of seed from France. This seed will be for distribution, and our readers will be interested in knowing what is the character of the plant of which they may receive the seed.

Uses of Chufa.

Dr. Jackson, who analyzed the chufa, says: "When these tubers are beaten to a paste and mixed with water a remarkable emulsion is formed, which, after straining, resembles milk in appearance. The fat at length rises to the surface and looks like cream, while most of the starch subsides to the bottom of the vessel; but enough still remains suspended to give the emulsion the appearance of thin or skim milk. Thus mingled with water, the most nutritive ingredients of this plant may be taken as a drink.

Mr. A. Peabody stated, in the *Southern Plantation*, that, some 20 years previously, he had received five tubers from the Patent Office, and had raised them ever since, a single nut producing a quart of tubers in ordinary soil. On land that will produce 20 bushels of corn, 100 bushels of chufas can easily be raised—the chufas being double the value of corn, as they require neither digging nor storing, and do not rot in the ground, being uninjured by cold or frost. Hogs will dig them as they want them, and fowls will soon learn to scratch them out of the ground, they growing sufficiently near the surface. He also says that poultry fattened on them excel in delicacy of flavor the celery-fed canvas-back duck.

Method of Growing.

According to Mr. Peabody, the chufa delights in a light sandy soil, and may be planted at any time (in the South) from December to April. He planted them in shallow furrows, two feet apart; single tubers one foot apart in the furrows and "covered with a board"—(probably during winter.) They vegetated the first warm weather, and when weeds appeared, required only "a sweep" to be run between the rows. The green spikes soon multiplied and eventually met across the rows, each spire having a nut at the bottom. He found the roasted chufa superior to chocolate as a breakfast beverage.

Mr. Peabody concludes his article thus: "When we take into consideration all its good qualities, its fattening properties, its easy culture, its hardiness, and the fact that hogs will dig them as they want them without wasting them, we wonder that they are not more extensively raised by our farmers. It is the most valuable seed the Patent Office ever sent out, and is destined to prove a great boon to the South."

The chufa is not only a fattening food for swine and fowls, as it is much relished by them; but an excellent oil may be expressed from it, after which the cake will still be valuable for feeding animals, and will increase the quantity and richness of the milk of cows if fed to them.

QUERIES AND REPLIES.

Knots on Grapevines.

EDITORS PRESS:—Some knots like sample enclosed, (some of them five times as large) have been growing on my grapevines for two or three years, on main stem, the largest near the surface of the ground. What is it?
Colfax, Jan. 31st. J. M. GRAHAM.

We submitted the specimen to Mr. John Ellis, horticulturist at the State University, who favors us with the following reply: "The specimens of grape knot sent may be the work of some insect. It looks to me like the black knot, and most probably is the work of a species of curculio. However, some species of grapevines when they get old will produce these warty excrescences, and they are found about the base of where the tendrils were formerly situated, which are in fact the cause of the warty productions. It is hard to say which of these causes have produced this result without seeing and knowing more of conditions, but from what your correspondent says, that the warts are largest nearest to the ground, would seem to inter that age has something to do with it, and if this be so, the species, as before spoken of, is nothing more than showing natural results."

Poland Chinas.

EDITORS PRESS:—I noticed in your issue of January 29th a query in regard to where the Poland China hogs could be procured, and at what price. I am pleased to say that I imported some of that breed of hogs from Indiana some six years ago, and that they can be procured from Mr. R. Sears, Blountsville, Henry county, Indiana. The first pig cost me $212, shipped by express; after which I shipped a pair by freight, the pair costing me $62 50. The pigs can be procured at from $10 to $20 apiece, first cost. The stock that I have at present is not pure blood Poland China, as I have crossed with the big boned China and Chester White. I am impelled to send you this communication by a desire to further the improvement of our stock of hogs, as well as to give Mr. Robins the information he desires.
Etna, Siskiyou Co., Cal., H. C. CORY.

Culture of Tobacco.

EDITORS PRESS:—I wish to obtain full and reliable information concerning the culture of tobacco. Any information on the subject will oblige me.
GEO. G. FRYE.
Porterville, Tulare county, Cal.

There is a very complete essay on the subject in the Report of the Transactions of the California State Agricultural Society for 1874, which we presume could be obtained by addressing the secretary of the society at Sacramento.

Coal Ashes.

EDITORS PRESS:—Of course a large quantity of ordinary hard coal ashes would be injurious on ordinary land. But would a small amount, (say one-half inch in thickness) of Coos bay or Renton coal ashes, well mixed with the light soil of Oakland, be harmless, injurious, or beneficial? Tell us something of what is known by experiments on the use of coal ashes on different kinds of soil. Are experiments being made by the State University in regard to fertilizers for the different kinds of soil in California? SUBURBAN.

Will Professor Hilgard, of the University, favor us with replies to these queries?

Concerning Pre-emption.

EDITORS PRESS:—About a year ago an article appeared in the PRESS to the effect that a man who had enjoyed the benefit of the pre-emption in the Atlantic States could avail himself of a second benefit in the Pacific States; for instance, any one who had the benefit in 1858. Please publish the date and what volume the act could be found in. M. K.
Los Angeles, Cal.

We are informed at the land office in the city that such provision is made in the act of 1853.

OLIVE OIL.—One of our city dailies remarks that it may not be generally known that a considerable quantity of California olive oil is finding an appreciative market here, and is coming into quite general use in our hotels and restaurants. Samples of the oil were recently submitted by a prominent restaurant keeper to a party of his patrons, who were good judges of the article, for an opinion. After critically testing it, they unanimously reported it to be a first-class article, and were much astonished on being informed that it was of California production. The article is put up by parties at Los Angeles in cans and cases, and is sold here at a slight reduction from the rates of imported oil. Owing to the prejudice against home products, the agents have been obliged to label it Plagniol, a well known French brand.

A CYPRESS HEDGE.—Thomas Dugan has a hedge of cypress on the lower line of Mr. Cook's grounds, San Rafael, which has grown nine feet in nine months. They are very handsome and symmetrical trees. He has also a large number of blue gums, which have grown from the seed to a hight of 13 and 14 feet in 10 months, and two inches and more in thickness. San Bernardino also boasts of a eucalyptus that grew 12 feet in a year.

THE loss of life by the sinking of the steamer *Stratsilide*, in the English channel, in a collision with the steamer *Franconia* on the 17th inst., was frightful. Over 60 persons, it is said, went down with the vessels. Only a few of those on board were saved,

HORTICULTURE.

Cherry Culture.—No. 3.

Pruning.

This is a nut that is very hard to crack, and there is not one man in 20 that knows how to crack it, because there are no fixed rules to work by. But there are fixed principles that ought to be strictly adhered to, for the reason this is one of the grand principles of success in dollars and cents in your purse, while it adds health and vigor and long life to the tree. And here, on this part of the subject, I expect to "tramp on somebody's corns," but it cannot be helped. As I said before, we live in a free country and every man has a right to his private opinion, publicly expressed.

I have heard a great many men say that cherry trees should never be pruned. Then why should any fruit tree be pruned? And what are they pruned for? There is not one man in ten that can answer these questions correctly. There are several reasons why fruit trees should be pruned, and especially the cherry tree, which is more sensitive to its treatment, and requires greater care in the operation. Prune your cherry trees by all means, and prune them short the first five or six years of their life. This lays the foundation for a low, stocky top, one that is able to stand our heavy north winds without blowing half of the fruit to the ground. I heard a man say the other day that he objected to short pruning on the ground his trees did not bear any fruit. I asked him if he did anything to prevent overgrowth in wood. He said he did not. And you can see at a glance that in his last remark I got the key to his objection. I will admit that if you let the trees have their own way through the summer, you will not get much, if any fruit. But what you do get will astonish the natives and you, too. Now, if the man had been posted in the little things belonging to his business, he would have followed the pinching process, as a great fruit producing operation. And if my trees should grow six feet in length, I would cut them down to one foot on the leaders, and from six to eight inches on the side shoots. And this would be done every year. I pay no attention to what Dick, Tom and Harry say about this matter, I go according to my own judgment and experience. Whenever my trees are ready to be pruned, I am ready to prune them; not when I am ready, as some people say, but when my trees are in a fit state to be pruned, I am ready to commence pruning, if the plow has to stand still. I adhere strictly to this one thing. This is one of the things, as the little boy said, I know. There is a great deal depends on this part of fruit growing. But when short pruning is followed up closely it implies thinning out. If you let all the side shoots grow the top will be too thick, consequently they must be cut entirely out. But if you understand your business you can keep a great many of them back by pinching them and converting them into fruit spurs. The pinching process will come under its proper head. I do not sacrifice anything that I can convert into fruit. This is mostly done by pinching; and when you get these shoots so pinched into fruit they never make any more wood, but will always be fruit spurs as long as it is a tree, unless it is broken off. So you see here is another little thing that must be looked after, and that is care in picking.

Late Pruning.

This is not the general rule in pruning, but the exception. I prune my cherry trees late for two reasons; first, because the cut heals over in a very short time, and does not gum; second, I can then see where the wood buds are, so I can avoid cutting down among the fruit buds. Because if you prune early there will be a good many very warm days before the sap will start. The cut will dry out more or less, and sometimes I have seen it dry to the bud. That cut will be a long time in healing. Not so in late pruning, because life and vitality are at the point where you cut, and the healing process will commence in a few days. At the end of the growing season the cut will be healed over without any gum. In the second place, if you cut in among the fruit buds, they will be fruit buds still, and you will get no shoot to carry up the branch, but in nine cases out of ten it will die down to the next branch, leaving nothing but a dry snag which you must cut away. I do not begin until the buds are large and plump, finishing up by the time I can see the bloom in the buds. I prune my trees very short every year; that is, I cut back the new wood on the leaders to about 12 inches long; the inside branches six inches. Thus I bring my crotches or branches close together. But to avoid too much cutting I pinch the side shoots when about six inches long, throwing them into fruit the first year, letting the leader go his own way.

Here lies one of the four great principles, each independent on the other, which too many fruit growers overlook. The

Object of Heavy Pruning

Is, first, to get the wood thick and stocky; second, to confine the fruit to the big wood; third, to secure a compact top, therefore keeping the fruit out of the hot sun; fourth, not to let the top exceed the roots. These are four rules that every fruit grower ought to write in big letters in his bed room. I practice these four rules very closely. It is upon these the growth, health and longevity of the tree depends to a great extent.

Cherry Vale, San Jose, Jan. 31st, 1876.

Points in Pruning.

EDITORS PRESS:—Few contributions appearing in our good RURAL are of more interest to your orchardist readers, as that we lately had from Mr. Chillson, of Ventura, especially when they are criticised by such experienced authority and able pen, as that of Mr. Gillet, of Nevada city. While acknowledging their superiority in writing, as well as, perhaps, in experience to myself, I hope being pardoned for criticising such high authority as that of Mr. Gillet.

Under the head of pruning, Mr. Gillet gives a list of fruit trees which he states are the losers by pruning. Would Mr. Gillet be so kind as to name any kind of fruit tree which is not the loser by being pruned, in regard to number of specimens, and regardless of size, quality and appearance of fruit, and symmetry and longevity of tree? In my humble opinion the main object of pruning trees, is: first, to give them the desired shape; and second, to prevent them from overbearing, and thereby gaining in quality what we lose in quantity.

Referring to the walnut and chestnut, he is, in my opinion, correct. I have seen both from one and a half to two and a half feet diameter, which had neither saw nor knife on them for 50 years, and look as healthy and thrifty as if they were just in their prime; but in regard to almonds, I think he would change his opinion if he would see the orchard of Mr. Bradley, about two and a half miles west of San Jose, with shoots of last year's growth from four to six feet long, which, if not shortened in, will make long slender branches, and eventually break down with the weight of their fruit.

The cherry is next in order. I think Mr Geiger, the same distance from San Jose, but farther south, would teach Mr. Gillet a lesson on pruning cherry trees. Who has ever heard of a plum tree being injured by moderate and judicious pruning? If it does not need it, why do apple, pear or other fruit trees?

But Mr. Gillet's greatest mistake is in regard to the medlar, also called German mispel. If he had applied his remarks on it to the quince, he would have hit the nail on the head. But while we butt the medlar on quince stock, it differs from it in its way of setting its fruit While the quince sets it at the end of the twig of last summer's growth, the medlar will set it at from two to six inches from the old wood on the new shoot, similar to a grapevine, and by pruning it you will only lose in the number of specimens, the same as any other fruit tree. H. G.

Santa Clara, Feb. 14th, 1876.

[Our correspondents need make no apologies for holding views contrary to each other, or for expressing them for our publication. In a multitude of counsels there is wisdom and discussion elicits truth. We are always ready to print courteous criticism of the subject matter which appears in the PRESS in any of its departments. Let us by all means have a full comparison of experiences.—EDS. PRESS.]

TIMBER LANDS.—Senator Kelly's bill for the sale of timber lands in the States of California and Oregon and in the Territories of the United States, has been reported favorably by the Senate Public Lands Committee without amendment. It provides that certain surveyed public lands in California, Oregon and Washington Territory, valuable chiefly for timber but unfit for cultivation, may be sold in tracts not exceeding 160 acres to any one citizen or association, at the minimum price of $2.50 per acre. For the other Territories the size of the tracts is limited to 40 acres. The bill is a copy of the measure recommended by the Public Lands Committee of the House of Representatives (based on Mr. Page's public land bill). It may be remembered that it contains a number of stringent requirements for oaths and affidavits to prove the character of the land, and that it is purchased for individual use and not for speculative purposes.

SO RAPID has been the course of business between the two greatest of American cities—New York and Philadelphia—that notwithstanding the great efforts made in every way possible by the old companies, it was thought they would soon be taxed beyond their power entirely. Soon, however, the traffic will be better met, for we are told that: "The new railroad from New York to Philadelphia is nearly completed, and will soon be in operation. The length of the 'New York and Philadelphia New Line,' from Liberty street in this city to Berks street, Philadelphia, is 88 miles. The distance will be accomplished in one hour and fifty minutes."

A NOVEL MODE OF WELL BORING.—In various parts of Scandinavia the boring of artesian wells is done by means of a jet of water. The stones in the diluvial ground, which are a great hindrance to such operations, are thrust one side by the jet, if small; while if large they are shattered by dynamite. In Kiel 22 artesian wells have been bored within the past six or seven months.

USEFUL INFORMATION.

Hints on Familiar Things.

Why is a ray of light composed of various colors? If solar light were of one color only, all the objects would appear of that one color, or else black.

Why are some things of one color, and some of another? As every ray of light is composed of all the colors of a rainbow, some things reflect one of these colors, and some another.

Why do some things reflect one color, and some another? Because the surface of things is so differently constructed, both physically and chemically.

Why is a rose red? Because the surface of a rose absorbs the blue and yellow rays of light, and reflects only the red ones.

Why is a violet blue? Because the violet absorbs the red and yellow rays of the sun, and reflects the blue only.

Why is a primrose yellow? Because the surface of the primrose absorbs the blue and red rays of solar light, and then reflects the yellow ones.

Why are some things black? Because they absorb all the rays of light, and reflect none.

Why are some things white? Because they absorb none of the rays of light, but reflect them all.

Why are the leaves of plants green? Because a peculiar chemical principle, called chlorophyll (signifying green leaf), is formed within their cells; which has the property of absorbing the red rays, and of reflecting the blue and yellow, which (being mixed together) produces green.

Why are some things transparent? Because every part between the two surfaces has a uniform contracting power, or (in other words) has in every place the same density, and, therefore, the rays of light emerge on the opposite side.

Why are some things not transparent? Because the particles which compose them are separated by minute pores or spaces, which have a different density from the particles themselves. Therefore, the rays of light are too often reflected and refracted to emerge.

ANOTHER NEW ELECTRIC BATTERY.—This apparatus, invented by two Frenchmen, is contained in a square glass jar. The pile is composed of a prism of charcoal which contains sesquioxide of iron in its pores, and a small rod of amalgamated zinc. The latter passes through the stopper, to the under surface of which is fixed the charcoal. A solution of ammonium chloride is used as the exciting fluid. The reactions are the same as in Leclanche's couple, in which oxide of manganese is used. When the circuit is closed, the chloride of ammonium attacks the zinc, forming a double chloride of zinc and ammonium. The latter, on being set at liberty, decomposes the sesquioxide of iron, carrying off a part of its oxygen and forming free ammonia, which disappears by evaporation. This pile ceases to act so long as the circuit remains open. Its durability and force are large. Its electromotive power is as 12 to 10 of the sulphate of copper battery, and it is thus well adapted for industrial purposes.

A SIMPLE WAY OF PROCURING FRESH WATER FROM SEA WATER.—A method of procuring fresh water from sea water through the direct action of the sun's rays is among the foreign inventions. The apparatus consists of a box of wood one inch thick, about 14 feet long, two feet wide, and an average depth of six inches. The upper part of the box is closed with ordinary glass, which has an inclination of an inch and a half. At the lower edge of the glass there is a semi-circular channel, destined to receive the fresh water which is condensed on the interior surface of the glass. The operation is entirely simply. The salt water is let into the box for about an inch in depth, and then it is exposed to the rays of the sun. A very active evaporation then begins, and it is found that a square meter of glass will condense daily the amount of two gallons of pure water.

PRESERVING WOOD BY THE APPLICATION OF LIME.—The method of preserving wood by the application of lime, as pursued by M. Svostal, is published in the French journals. He piles the planks in a tank, and puts over all a layer of quicklime, which is gradually slacked with water. Timber for mines requires about a week to be thoroughly impregnated, and other wood more or less time according to its thickness. The material acquires remarkable consistence and hardness on being subjected to this simple process, and, it is alleged, will never rot. Beechwood has been prepared in this way for hammers and other tools for iron works, and it is said to become as hard as oak without parting with any of its well-known elasticity or toughness, and to last much longer than when when not thus prepared.

THE first houses with glass windows mentioned in history, were erected in the ancient city of Tyre, in Syria. The first plate glass made in England for looking-glasses, coach windows, etc, was made at Lambeth, in the year 1673.

AN OAKEN COLOR can be given to pine tables by washing them in a solution of copperas dissolved in strong lye, a pound of the former to a gallon of the latter. When dry, this should be oiled, and it will look well for a year or two; then renew the oiling.

MEASURES FOR MEN.—One thousand shingles laid four inches to the weather will cover one hundred square feet of surface, and five pounds of shingle nails will fasten them on. One-fifth more siding and flooring is needed than the number of square feet of surface to be covered, because of the lap in the siding and the matching of the floor. One thousand lath will cover seventy yards of surface, and eleven pounds of lath nails will nail them on. Eight bushels of good lime, sixteen bushels of sand and one bushel of hair, will make enough good mortar to plaster one hundred square yards. A cord of stone, three bushels of lime and a cubic yard of sand, will lay one hundred cubic feet of wall. Five courses of brick will lay one foot in hight on a chimney; six bricks in a course will make a flue four inches wide and twelve inches long; and eight bricks in a course will make a flue eight inches wide and sixteen inches long.

BAG MARKING INK.—A correspondent of the *English Mechanic* gives the following recipe for an ink, the permanency of which he says is perfect, even when bags filled with chemical manures have been in rain and sunshine for ten days: Boil one pound of logwood chips in one gallon of water, at boiling point, ten minutes; then stir in the eighth of an ounce of bichromate of potash, and boil this 10 minutes longer; then add, when cold, one-half pound of common gum, dissolved, and stir well in. This will flow well from the pen, and will mark bags with either the stencil plate or block. The cost of the above ink is about 12 cents per gallon.

An Arsenic-Proof Stomach.

A thirteen-year-old daughter of a Mr. Flagg, residing near Whitehall, is exciting the attention of the physicians and scientific men in that vicinity. Some time ago Flagg put some arsenic on some bread and placed it in a portion of the house frequented by rats. The bread suddenly disappeared, and again and again other pieces were placed in the same locality, with the same result. He finally determined to watch and ascertain, if possible, what became of it. He had not long to wait before he was horror-stricken to observe his little daughter walk away from the place, cramming her mouth with the poisoned bread. A physician was sent for, and before his arrival the sobbing child made known to her parents that she had eaten all the bread that had been prepared for the rats, and that she liked it better than anything she had ever tasted. The physician was surprised, and thinking, possibly, that the drug might not be arsenic, he examined it, and found it arsenic beyond a doubt. To still further test it he tried a small quantity of it on a cat, which quickly seat the animal into convulsions, causing its death very soon afterwards. What seems remarkable, too, is the fact that ever since the child first tasted arsenic it has begged for the deadly drug, time and time again. About a year ago the girl fell sick with fits. Nothing would bring her out of the convulsions. In her quiet moments she would beg incessantly for arsenic. The physician in attendance, believing that the girl could not possibly recover, ventured to give it to her. The child devoured it with avidity, and in less than three days she was as well as usual. Since then she has taken the deadly poison at different times, the only effect it having upon her being to make her appear well, bright and cheerful. The case has been laid before several scientific men, all of whom pronounce it one of the most remarkable phenomena of the age.—*N. Y. Times.*

MEASURING BY THE EYE.—Years ago, says a correspondent of the Boston *Transcript*, when we went to school in a little weather-beaten schoolhouse, what exciting contests there used to be over the teacher's favorite exercise of having the scholars estimate with the eye the size and weight of different objects in the room! He would hold up his cane, and have each one tell how long he thought it was, and it was a lucky child that could come within half a foot of the right length. He would measure an urchin and then have the scholars try to reproduce the measure on the wall. He would mark off an inch or a foot or a yard in some conspicuous place, and then see how near anybody could come to chalking the same length on the blackboard. And it was astonishing how wide astray one would go. The fact is, our eyes deceive us ridiculously even upon the commonest things. At first thought, which should you say was the taller, a three-year-old child or a flour barrel? And could anything but actual measurement convince you that the same child is half as high as a six-footer? There is an old saying that a child two years old is half as tall as he ever will be; and after a few experiments in measuring one can easily believe it, but not before.

A REMARKABLE example of rapidity in deep boring has recently been furnished by the first bore-hole put down by a company formed to search for coal in Switzerland. A depth of 1,422 feet was reached in two months, including the re-boring of the upper 640 feet from three and one-eighth inches to seven inches in diameter. The work was done, including all delays, at a rate of over 1,000 feet per month, the highest speed being nearly 77 feet in 24 hours. The results obtained were negative, the section showing about 1,200 feet of permean strata resting upon old crystalline rocks; but the trial is only the first of a series.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON. Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Miscellaneous Notices.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord	J. REOENSBURGER.....S. F.
J. VOLLMAR.....S. F.	A. W. THOMPSON, Petaluma
J. D. BLANCHAR.....Napa	F. A. KIMBALL....San Diego
O. MITCHELL GRANT.....	I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.	

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 6 Leidesdorff Street. S. F.

SEED WHEAT.

For sale in lots to suit, Seed Wheat, raised from genuine imported Australian, French and English Wheat of best quality. Apply to

J. W. H. CAMPBELL,
433 California Street, S. F.
(Merchants' Exchange.)

CALVERT'S CARBOLIC SHEEP WASH,

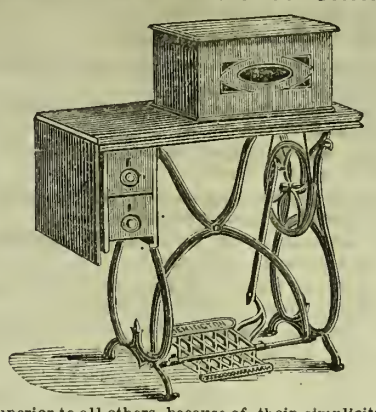
$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel, S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER.
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't	I. G. GARDNER...V. Pres't
G. P. KELLOGG, Treasurer	A. W. THOMPSON.....Att'y
I. C. STEELE.....San Mateo	CHAS. LAIRD,..... Salinas
A. WOLF.....Stockton	A. D. LOGAN.....Colusa
W. H. BAXTER.....S. F.	G. W. COLBY.....Butte Co
J. C. MERRYFIELD, Dixon	C. J. CRESSEY....Oakland
A. B. NALLY....Santa Rosa	E. W. STEELE, S. L. Obispo

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....	$3,026,378.00
TOTAL PREMIUMS.....	63,306.49
LOSSES PAID.....	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,
Cor. Second and Santa Clara Sts., San Jose.
CAPITAL, - - - - - - - - - $100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER
Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of J. M. DUDLEY, Dixon, Solano County, Cal.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,
San Francisco.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,
SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

CANDLES.

MITCHELL'S
New York Candles

Full Weight and 14 ounce.

Will be found on comparison to be

Unequalled in Quality.

14 GMG OZ.
STEARIC ACID
CANDLES
GEO. M. GRANT & CO.
PHILADELPHIA.

FOR SALE BY ALL THE LEADING JOBBERS.

Geo. M. Grant & Co., Agents. San Francisco.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
El Dorado, El Dorado Co., Ca

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

THE ALDEN FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

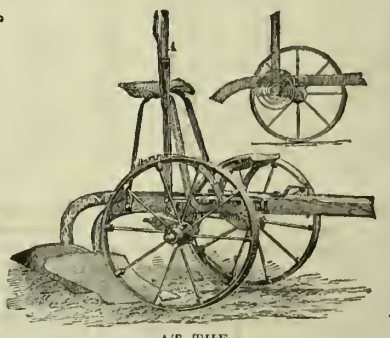
HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—cost nearly $245,000. Will be kept First-class, at $2.00 per day, and less by the week or month.

Agricultural Articles.

OAKLAND GANG PLOW

Fat. and Manufactured by HENRY N. DALTON.



—AT THE—

PACHECO
Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or be raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,
Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

American Chief Gang Plow.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

Pacific Coast Goods in Chile.

The splendid display of Pacific Coast goods made at the Chilean Exposition by the *Journal of Commerce*, through its representative W. C. Quinby, has produced among the thinking portion of the population, a profound impression as to our enterprise and commercial energy, and that impression we should endeavor, by all means, to strengthen. The friendly feeling existing has been shown in various ways, and California, for her population, has carried away the lion's share of the premiums. The Consolidated Tobacco Company have taken the first premium on Smoking Tobaccos and the third on Cigars, against thirty exhibitors of all nations. The Bay Sugar Works have taken the grand gold medal for the Cubo (Partz) Sugar, and the grand bronze medal for the best collection of Sugars and Syrups. P. Liesenfeld carried off the first premium for Billiard and Bagatelle tables, after a spirited competition with New York and France. The California Italian Paste Company took the grand silver medal for Macaroni, Vermicelli, etc., over exhibitors from Europe and many South American States—their goods leading all. J. C. Johnson & Co. were awarded the grand silver medal for Saddles (the highest awarded any American exhibitor). Henry Gerke was awarded first premium for the best Wine (vintage 1868). The Buena Vista Vinicultural Association took the first premium for Champagne (Perle de la Californie). S. Wangenheim & Company were awarded two first class premiums on California Canned Fruit. Scotchler & Gibbs took the first premium on Salmon (Hume's packing). W. T. Garratt carried off the grand gold medal for Root's Blower, and a grand silver medal for Mining Steam Pumps. Messrs. Steel & Price carried off the grand gold medal for Extracts and Baking Powder. The agents of Diebold, Norris & Co. took from four competitors, the grand bronze medal for Fire Proof Safes, the highest award granted American Safes. To W. G. Badger was awarded the grand gold medal for Organs (Wood's Cabinet). Through Thomas Guerin, California has had the honor of supplying the best water meter, (for irrigating purposes), to Chile. These are, as yet, the only ones that we have been advised of, but by the next mail we will be able to present to our readers a more detailed account, and one which will show how well California acquitted herself in Chile.

Production and Price of Wheat.

Tho statistician of the Department of Agriculture has summarized his reports of the crop year of 1875, and gives the following table of estimated yield per acre in the leadiug wheat producing States:

States.	1872. Bushels.	1873. Bushels.	1874. Bushels.	1875. Bushels.
New York	12.5	13.5	15.6	8
Pennsylvania	10.8	14.2	14.8	12.8
Ohio	11.7	12	15	9.5
Michigan	12	12.2	14.2	13.5
Indiana	12.4	11.2	12.2	9
Illinois	12 1	13.5	11.5	10.5
Wisconsin	14.3	16.5	11.5	14
Minnesota	16.5	18.3	13.4	17
Iowa	12 6	13	11.6	9.7
Missouri	8.8	12.8	13.5	9
Kansas	11.6	14	13.7	12.5
California	12.2	13.5	13.2	11

Price.

The following table shows the price per bushel on December 1st, 1875, aa contrasted with the preceding years in tbe same states:

States.	1872.	1873.	1874.	1875.
New York	$1 65	$1 60	$1 26	$1 31
Pennsylvania	1 67	1 50	1 21	1 29
Ohio	1 42	1 31	1 04	1 09
Michigan	1 46	1 35	1 08	1 15
Indiana	1 32	1 22	94	97
Illinois	1 23	1 10	86	91
Wisconsin	1 03	97	83	91
Minnesota	83	80	70	86
Iowa	85	79	65	71
Missouri	1 41	1 13	83	95
California	1 11	1 32	99	1 18

Another Mammoth Cave.—Abont the middle of tbe past week two young men named White, while idly wandering in a large tract of wild, dense forest near Columbia, Kentncky, discovered what they supposed to be a sinkhole or fox den, and witb that idea proceeded to explore it. After a little tronble in making their way throngh the entrance, the cave (for anch it proved to be) became large enougb to admit of tbeir walking upright. Tbey had proceeded tbus in this passage probably 150 yards, when they emerged into a large and picturesque gallery, the beauty and grandeur of which will rival that of the old Mammoth itself. Tbe room, according to tbeir calculations, ia about 150 by 100 feet, and abounds in all the varieties of stalactites and stalagmites.—*Cor. Louisville (Ky.) Courier-Journal.*

The pottery and pipe factory at Buena, Oregon, is quite a large and imposing structure. The main building ia 16 by 116 feet, two stories high; tbe warehouse 40 by 60 feet, and the engine room 40 by 40 feet, and the furnace room 30 by 30 feet. This company proposes to erect a large kiln for the manufacture of pipe for water and sewerage purposes, to supply the increasing demand of Portland and Salem. A vein of fire clay bas been tried and proves valnable for the manufacture of fire-brick, wbicb have been in use for some time, and take the place of the English product.

Consolidating Ashes.—The discovery of a process by wbicb asbes can be converted into a solid masa as hard aa marble haa revived the discussion of cremation in Germany.

Wide Wagon Tires.

Assemblyman Jamison of Santa Clara has introdnced a bill to protect roads and highways in Santa Clara county, which is somewhat of a novel law, its object being to make all tires conform to a certain width prescribed by law. The bill is in accordance with the wishes of bis constituents, and especially tbe farmers, upon whom tke bnrden of tbe injnry done tbe roads by narrow tires principally falls. A large number of very heavy wagons, capable of carrying 6,000 feet of green lumber, are constantly running between San Jose and the lnmber regions in the Santa Cruz monntains, many of tbe owners being residents of Santa Crnz county. Tbese wagons are all bnilt witb narrow tires, and the effect is that the roads over whicb they travel are cnt to pieces every year, and reqnire a beavy outlay every spring to put them in passable traveling condition. The proposed law compels all wagons doing a regular teaming business to have tires from three to five inches in width, according to the size of the wagon, and does not affect in any manner vehicles for carrying passengers or transient wagons from rnnning over any road, even if they have narrow tires. The farmers in tbe western portion of the valley have long complained of these lumber teams, and have tried in vain thus far to have the matter remedied. The proposed law will allow them two years in which to comply with its provisions, and is intended to compel all new freighting wagons to be built after the pattern, rather tban the alteration of those now in nse.

The American Workingman.

The following is an extract from the first speech delivered in Congress by Hon. D. J. Morrell, President of tbe Cambria iron company. It has tbe trne ring:

The American workingman mnst live in a house, not a hut; he must wear decent clothes, and eat wholesome and nourishing food. He is an integral part of tbe municipality, the State and the nation; subject to no fetters of class or caste; neither pauper, nor peasant, nor serf, but a free American citizen. He has the ballot, and if it were possible it would be dangerous to degrade him. The country stands pledged to give him education, political power, and a higher form of life than foreign nations accord their laborers, and he must be sustained by higber rates of wages than tbose of Europe. Our industries operated by American citizens must be freed from foreign interference and organized into a distinct American system, which will exact some temporary sacrifices, but resnlt in general prosperity and trne national independence. In maintaining diversified industries we utilize every talent, provide a field for every capacity, and bind together the wbole people in mutnal dependence and support, assuring the strength and security of our republic.

Branded Hides.—Eastern dealers complain seriously of the practice of branding cattle whicb has always prevailed in this State, and which probably always will be practiced. The time bas been when branding was the only guaranty of title, but now tbat stock-raising has become more of a domestic industry, we see no more need of applying the brand to them than to borses. But even if tbe practice is to be continned, stock-raisers should long since have learned that it is money out of pocket to pnt an enormons brand on the hip of the animal, making a hole in the cboicest portion of tbe side of leather wben tanned. No matter how good tho quality of the leatber, the brand reducea it to second grade. These brands, where they become necessary, can as well be placed on the neck of the animal, or low down on tbe shoulder, as to apoil one-half of eacb hide by branding the hip. For domestic animals the brand can probably be replaced by the ear mark.—*S. F. Chronicle.*

A Bounty for Steam Power.—Mr. Hart, of Colnsa, has introduced a bill "to encourage the invention of a machine as a snbatitnte for horse power." It seeks to appropriate $15,000 as a bounty to any citizen of the State who shall invent, and, after two years' continued trial and use, shall produce a machine propelled by steam or other motive agent, the object of which is a substitute for the use of horses or otber animals on the highways or farm. The test of anccessful nse shall be that any machine or locomotive entering the lists to compete for tbe bounty shall successfnlly plough at least 1,000 acres of land, as well and at a cheaper rate per acre tban the same can be done with horaes or other animals, and shall perform a journey of at least 200 milea on a common road in thia State, propelled by its internal power, at an averago rate of at least four miles per hour, working time. It must be of snch construction and widtb as to conform with or rnn in the ordinary track of tho common dray or truck now in use.

Singular Cause of Death.—A woman residing in Albany county, N. Y., awoke one night latcly with a sevcre headache, and, taking a bottle of salts from a stand near by, applied it to her nose occasionally. She soon fell asleep, and on awakening in the morning fonnd that she had retained tbe bottle in her hand, and that the salts bad drawn a blister on her thumb, wbich had covered the mouth of the bottle. In a short time inflammation arose, gangrene set in, and in spite of every effort to stop ita progress her entire system became poisoned so tbat she died.

General News

New Mexico wants to be a State.

The Cuban treasnry is bankrupt.

Alfonsist snccesses are just now the order of tbings in Spain.

Charlotte Cushman is dead. Her estate is valued at $600,000.

The San Francisco school department is sadly in want of fnnds.

The Danube has overflowed and innndated the entiro subnrbs of Vienna.

An attempt is to be made to introduce Granger societies in England.

Rumors of the intended retirement of Secretary of the Treasnry Bristow, continue.

An Official Russian ukase forbids women executing tbe functions of barristers.

Rumors of the prospective consolidation of the Anglo-American and Direct cable companies are again in circulation.

The Supremo Court has decided that minors leading an idle and dissolute life may be committed to the Industrial school without trial by jury.

Dr. Helmnold has been declared insane by the Commissioners in Lunacy appointed by the court in Philadelpbia, and will be placed in a proper asylum.

A Colored Member of the Virginia House of Representatives has been expelled for abstracting money from the pay book of tbe Sergeant-at-Arms.

The suspension of work in the Pennsylvania coal region tbrows about 60,000 men out of work. Over production is the canse. Work will be resnmed March 11th.

"Foster" won tbe great four mile and repeat race for $30,000 on Washington's birthday. Tbe race was witnessed by 25,000 people. Time 7.38-7 53. The second horse was "Rutherford."

The John Hopkins University in Baltimore, presided over by Professor Gilman, late of the California University at Berkeley, was opened February 22d, in the temporary bnildings fitted up in that city.

The Kern Valley bank, at Bakersfield, was robbed of $27,000 on the night of the 18th inst. The bank manager, wbo was in tbe bnilding, was knocked down and stupefied with chloroform.

A Washington dispatch says: In jnstice to Minister Schenck, the President will not accept his offer to resign until the investigation of the Emma mine scandal, ordered by the House, is concluded. It is now charged that among the parties who participated in the half million dollars expended in Washington, in connection with the Memphis-El Paso lobby years ago, were several present members of Congress and General Schenck.

Science in the Public Schools.—At the close of his series of six Christmas lectnres, in London, on electricity, Prof. Tyndall remarked that five of tbem had been illustrated with apparatns whicb any teacher could make of the commonest material, at scarcely any cost. He hoped the example thus set would be followed, for tbe future of science dependod to some extent on teachers in the pnblic schools. The masters of schools, he aaid, should look tbe problem of scientific education straight in the face, for science was growing day by day and hour by hour, and, althongb he would deprecate any change from witbout in tbe public school system, he would advise the masters to make tbe change from within, before the outside pressure became too strong.

Fire-Proof Joist.—An ingenions kind of fire-proof joist, recently introduced, consists of a alip of wood five inches wide by five-eighths of an inch thick, belted between two flanged atripa of quarter-inch iron, making a beam quite as strong as thoae of wood ordinarily employed. The iron sidea, in addition to affording strength, it is claimed, render the joist substantially fire-proof, while the center of wood affords the means of pntting down floors and nailing on latba in tbe uanal manner. The impediment to the mannfactnre of these joists heretofore has been tbe difficnlty of rolling tbe flanged iron sidea, bnt this has now been sncessfully overcome.

Formation of Sugar in Beets.—The discussion on the subject of tbe formation of sugar in beets continues to be warm, but is very far from haviug a satisfactory conclnsion. The great antbority, Clande Bernard, ia of opinion the sugar is formed by the root. Mesars. Dnchartre and Viollette believe it takes its place by the leavea, owing to tbe conversion of tbe starch in the leaves into saccharine matter, the root being merely the depot for the sugar tbua formed, to nonrisb the seed stem the following year, just as tbe tubercle of tbe potato has a store of starch to feed its shoots of the succeeding season.

L. F. Moulton, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, Dewey & Co., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington D. C., Feb. 22d, 1876.

For Week Ending February 8th, 1876.*

Surgical Bedstead.—Oliver Allen, Petaluma, Cal.

Electro-Magnetic Tripping and Recording Mechanism.—Robert Bragg, S. F., Cal.

Stirrers for Ore Roasting Furnaces.—Jas. Brodie, S. F., Cal.

Vehicle Springs.—Eli Hnntsington, Sacramento, Cal.

Ice Machine (four cases).—Samuel B. Martin, S. F., Cal.

Harvester.—Jas. F. Place, S. F., Cal.

Apparatus for Treating Hides.—Charles L. Royer, S. F., Cal.

Congealers for Ice Machines.—David Smith, S. F., Cal.

Harvester.—Henry D. Willard, Vacaville, Cal.

Reissue.

Alarm and Fare Registering Mechanisms.—Isaac Hyde, S. F., Cal.

*The patents are not ready for delivery by the Patent Office nntil some 14 days after the date of issne.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Machine Shops in Russia.—In 1866, Russia had 100 foundries and machine shops, only 52 of which were provided with steam. At the present time there are 362 of these establishments, 79 of which are exclusively occupied with the manufactnre of agricultural implements. Statistics are to hand concerning 179 shops only; these employ 46 528 workmen. In 1868 there were 222 locomotives made in Russia; last year the number was 768. A large nnmber of English workmen are employed in Russian engineer shops, bnt tbey complain of being treated as naturalized Russian snbjects—that is to say, their personal rigbts and liberties are bnt little respected.

In these days no farmer can afford to be without improved harvesting machinery. Among the best is that manufactured by the McCormicks, of Chicago, for which P. Mohan, 106 Davis St., S. F., is agent.

The Stanley Rule and Level Company, of New Britain, Conn., have reduced the prices of Bailey's Patent Adjustable Planes, both iron and wood. Send your address on a postal card and receive from them an illustrated circular of these and other superior tools.

A wash that would nsually take all day with ordinary soap, can be done in three hours with Dobbins' Electric Soap (sold by Newton Bros. & Co., San Francisco,) and it cannot injure the finest fabric. Try it,

Bound Volumes of the Pacific Rural Press, from Volume One, are for sale at this office: price $5 per volume for single volumes; unbound $3. There are two volumes per year.

A Broom Maker who nnderstands his business, is wanted to go to Ukiah, for a steady situation. Address this office.

Will W. B. Peck please send his address to Dewey & Co., 224 Sansome street, S. F., and oblige?

Designing and Engraving at This Office.

We are prepared to do fine Wood Engraving for illustrating Landscape Scenery, Buildings, Machnery, Works of Art, Manufactured Articles, Trade Marks, Seals, Etc. We have a first-class

Machine for Engraving

A portion of the work, which can be finished thereby more perfectly than by the eye and hand alone. Our patrons can depend upon first-class work always, and at reasonable prices. Samples can be seen at our office.

DEWEY & CO.

Our "Handy Map" Premium.

This "Map of California and Principal Part of Nevada" is printed on tinted paper, 15x18 inches. It gives the county boundaries, railroads and principal cities and towns in both States; the principal mountains, streams and the U. S. land districts and township lines in California. Without claiming completeness, it is the latest and one of the most correct issued. Price 50 cents. Furnished free (until further notice) to every subscriber to this paper who pays for one year in advance.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, February 23, 1876.

The course of trade during the week has been quiet and uneventful. The weather has been fine, but in the general dull time in trade all hands have been willing to observe the Washington's Birthday. Monday, also, was a partial holiday, as the banks were closed.

The silver trouble continues with no signs of abatement. The latest rnmor is that the inflationists intend to use the discount on silver as a lever for reducing the value of silver still further by redeeming the fractional currency at the East with silver and thus making silver on a par with the greenback, prepare the way for a greenback currency in this State, which has so long been a stronghold of hard money. This is, of course, only a rumor, but it comes directly from Washington and is worth the mention.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	Cal. Average	Club.
Thursday	10s 2d@10s 5d	10s 6d@11s —
Friday	10s —@10s 4d	10s 4d@11s —
Saturday	10s —@10s 4d	10s 4d@11s —
Monday	10s —@10s 4d	10s 4d@11s —
Tuesday	Holiday.	Holiday.
Wednesday	9s 11d@10s 2d	10s 3d@10s 10d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 8d@12s 10d	13s—@ 13s 3d
1875	8s 11d@ 9s 3d	9s 3d@ 9s 10d
1876	9s 11d@10s 2d	10s 3d@10s 10d

The telegraphed quotation from the *Mark Lane Express* review of the European grain trade for February 21st is as follows:

"The severe frost of which we wrote the past week was quickly succeeded by a rapid thaw, and trade which was improving slightly has relapsed iuto inactivity. The Paris market has taken the same course, but as it advanced rapidly during the frost it yielded more readily with the return of mild weather. In two or three days flour rose nearly three francs. It looked like the commencement of a steady reaction, but the advance was almost wholly lost within three days. The abundance of home supplies after the poor crop is equally remarkable in France as in England. Not less remarkable is the fact that the stock of flour in Paris is much larger than last year. The supplies since the harvest have largely consisted of old Wheat, and this probably explains in great part the comparative low price of home grown Wheat."

The Oregon Wheat Surplus.

Concerning the Wheat crop of Oregon and the amount still on hand for export, the Portland *Oregonian*, of February 12th, has the following:

"It is well for all who are interested in the trade to know as nearly as possible what proportion of the crop is yet to be moved. For the present we can only approximate. Comparing the total crop of the harvest of 1874 with that of 1875, as shown by the shipments abroad, up to date, it will appear that there are at least 40,000 tons in our State for export. Shipments of the crop of 1874, reckoning the Flour as so much Wheat, showed a total of 3,210,180 bushels, while those of the harvest of 1875, up to last New Year, showed an equivalent of 1,998,490 bushels Wheat. Since January 1st, the shipments have been equal to 650,836 bushels, or a total for the harvest year of 2,649,326 bushels. If the surplus of last year was only as great as the year previous, there would still be in the State only about 17,000 tons for export, but all accounts are agreed in estimating the surplus for 1875 as 25 per cent. greater than in 1874, which, if correct, would give as the quantity yet in the State and to be shipped out or carried over to another harvest, fully 41,000 tons, and we have little reason to believe that nearly or quite that much of a surplus in Wheat and Flour over and above the wants for home consumption is not yet held in our State."

The Barley Outlook.

The New York *Bulletin*, of a recent date, reports a speculative movement in Barley in that city, which, if successful, may be of advantage to holders in this State, where the stock of Brewing on hand is still large. The *Bulletin* says:

"Among the many incidental effects upon different branches of business which have already begun to be felt in anticipation of the Centennial, is a speculation in Barley, an increased activity in malt and in the brewing of beer, that is unusual at this season of the year. The movement is traceable to special preparations that are making for the International Exposition."

Speaking of Canadian Barley, the *Bulletin* adds

"Of this stock which has come to New York, nearly all has passed into the hands of a combination of dealers here, who are buying everything offered as fast as it is possible to do so without putting up prices, their object apparently being to compel the Canadians to send forward the balance of their crop, which is yet considerable, and thus enable the combination to secure the whole at the unusually low prices ruling this season. It is then expected that this market will be put up sharply, and held until the wants of the brewers shall absorb the moderate stocks of the maltsters, when the latter will be at the service of this combination, which will have all the Barley."

The stock of Barley in this State is much greater than the home requirements, and it is hoped that this movement will make a remunerative market for our surplus.

The following table shows the hay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Weekly Receipts of Domestic Produce.

Articles.	Week Feb. 2	Week Feb. 9.	Week Feb. 16.	Week Feb. 23.
Flour, quarter sacks	53,501	42,600	30,737	28,888
Wheat, centals	105,672	262,148	113,238	87,403
Barley, centals	7,416	25,377	10,476	7,730
Beans, sacks	1,012	679	1,047	1,833
Corn		728	670	1,884
Oats	7,875	1,500	1,327	7,019
Potatoes, sacks	10,133	9,460	6,510	11,327
Onions, sacks	705	1,424	1,116	760
Wool, bales	62	65	245	181
Hops, bales	45	31	23	32
Hay, bales	6,858	3,501	1,920	1,604

Bags—Our quotations for Bags are unchanged. There is very little inquiry for them. We are informed of a sale of a small invoice of English Wheat Bags at 10½c cash. Wheat Bags are offered for 11c cash. There is some business doing in Wool Bags at 45@50c.

Barley—Barley is quiet at quotations for the different grades. We note sales of 1,100 ctls light Brewing at $1.30 gold; 100 sks choice Feed, $1.27½; 400 sks fair Brewing, $1.30 per ctl.

Beans—Beans have slightly improved, as shown in our tables.

Corn—There have been small receipts of Corn coastwise. We note the following sales: 183 sks small Yellow, $1.40 gold; 200 sks large Yellow, $1.32½, half silver, per ctl.

Dairy Produce—Butter takes another decline in view of the large stocks received. Eggs are weak and lower. New California Cheese is scarce and in good demand.

Provisions—The Provision market is firm and indicating an advance in all articles of California product. Eastern hams are in large supply and prices are temporarily weak, although Eastern markets are very firm and prices relatively higher than here.

Hops—There have been a few bales of Hops received. Prices are unchanged in this market. Emmett Wells, in review of the New York market for February 11th:

"The demand continues fairly active and prices remain firm. There has been a temporary check to the export movement, caused by the advance quoted last week. The advance to 17c in this market seems to have been based entirely upon the growing scarcity of fine Hops. A good proportion of the fancy growth of Hops referred to in last circular has been sold at 25c ₱ lb."

The *Weekly Balance Sheet*, published at San Jose, after quoting a portion of Emmett Wells' New York circular, which contained some remarks on the "famous Willow Grove Hops," says:

"The 'Willow Grove' Hops are the product of Santa Clara county exclusively, and are grown on three ranches, Mr. Bird's, the Coe ranch and Sansevain's. The Bird ranch has 40 acres in Hops, from which was harvested, in 1875, 253 bales, aggregating 48,500 lbs. Of this crop 185 bales were sold at 16c, against an average of 32½c for the crop of the previous year. The Coe ranch for the same period produced 415 bales, or 83,000 lbs. This is from 65 acres. None of the crop is sold, and it will get the benefit of any increase in price. The crop from this ranch in 1874 netted the sum of $9,000. Mr. Sensevain's field contains 21 acres, from which he harvested 8,000 lbs. He holds almost his entire crop. At the prices which have thus far ruled, these ranches would have but a very slight margin after paying expenses. Hops in this county are a very sure crop; but the market is not so sure. Taking a number of seasons together, however, and the average profits foot up handsomely."

Oats—There are still liberal receipts of Oats from Omaha and the North coast. We note seles: 200 sks fair Feed, $2.10; 400 sks Omaha, $2.10 per ctl. There are choice lots quotable up to $2.30 per ctl.

Potatoes—The receipts of Potatoes have been large, but the demand uses them well. We note sales: 600 sks Sherman Island sold at $1.60, and 500 sks choice Petaluma sold for $1.75; 400 sks choice Tomales, $1.70@$1.77½; 200 sks do, $1.75; 100 sks do, $1.75; 200 sks do, $1.80; 650 sks Tomales, $1.60@1.77½ per ctl; 400 do Petaluma, $1.75 per ctl. Some choice lots were held at $1.80.

Onions—Onions have improved for best lots. We note sales of 300 sks Union City et $2.25; Stockton, $1.87; 230 sks Oregon, $2.25 per ctl.

Poultry—Chickens and Turkeys are plenty. Sales have been mainly at old prices.

Wheat—Wheat continues quiet at quotations. We note sales: 200 sks ordinary Coast, $1.75. There is little doing in this market in Shipping or Milling, except in small lots, which are embraced in the quotations: Shipping, $1.85@1.90; Milling, $1.90@1.95. We hear of sales in the country, of considerable amount, at a trifle better than the equivalents here.

Wool—Wool is unchanged here and prices are mostly nominal. The Eastern markets are telegraphed as follows:

NEW YORK, Feb. 19th.—The Wool market has been quiet all through the week, but prices as a rule remain steady. The sales for the week are: Ten thousand lbs. Australian, at 46½c; 36 bls Cape, part at 37½c; 18,000 lbs. Mexican, at 21@24c; 118,000 lbs. fall California, at 55¾@62c; 6,000 scoured do, at 60c; 18,000 lbs. spring do, at 23@31c; 12,000 lbs. Oregon, part at 31c; 10,000 lbs. coarse Western Texes, at 22c; 6.000 lbs. fine do, 26c; 10,000 lbs. super pulled, at 40c; 1,000 lbs. X do, at 38c; 12,000 lbs. do X Ohio, at 47c; 10,000 lbs. fine Wisconsin fleece, at 44c; 6,000 lbs. No. 1 do, at 47@47½c; 2,000 lbs. tub-washed do, at 52c; 1,000 lbs. medium unwashed Western, at 37c; and 90 bls East India, 190 do unwashed Donskoi, 100 do Syrian, 30 bls spring California, 1,000 lbs. black do, 5,000 lbs. Eastern Texas, 5,000 lbs. Western do, 9,000 lbs. super pulled, 60,000 lbs. combing do, 10,000 lbs. XXX Ohio fleece, 30,000 lbs. XX and above Pennsylvania do, 25,000 lbs. unwashed State combing, 25,000 lbs. State combing, 25,000 lbs. fine do and Michigan, end 5,000 lbs. tub-washed, on private terms.

BOSTON, Feb. 19th.—There is a steady demand for domestic Wool at unchanged prices. Fleeces have attracted the most attention the past week, and considerable lots have been taken by leading manufacturers. Transactions in California continue to keep up to a fair average, the sales of the week comprising 419,000 pounds at 24@33c for spring, and 14@26½c for fall. In pulled Wools there has been a fair business doing, the sales of super and X ranging principally from 40 to 47c, with small sales of choice Eastern and Maine supers at from 50@55c.

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18 00
Rough refuse, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refuse, ₱ M	20 00
Rustic, ₱ M	32 50
Rustic, refuse, ₱ M	24 00
Surfaced, ₱ M	30 00
Surfaced refuse, ₱ M	20 00
Flooring, ₱ M	28 00
Flooring, refuse, ₱ M	20 00
Beaded flooring, ₱ M	30 00
Beaded floor, refuse, M	25 00
Half-inch Siding, M	22 50
Half-inch siding, ref, M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	18 00
Half inch Battens, M	22 50
Pickets, rough, ₱ M	13 00
Pickets, rough, p'ntd	16 00
Pickets, fancy, p'ntd	25 00
Shingles, ₱ M	3 00

PUGET SOUND PINE – Retail Price.

Rough, ₱ M	22 50
Fencing, ₱ M	22 50
Flooring and Step, ₱ M	32 50
Flooring, narrow, ₱ M	35 00
Flooring, 2d quality, M	25 00
Laths, ₱ M	3 50
Furring, ₱ lineal ft	— —

REDWOOD – Retail.

Rough, ₱ M	22 50
Rough refuse, ₱ M	18 00
Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, ₱ M	30 00
Siding, ₱ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ₱ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₱ M	40 00
Battens, ₱ lineal foot	½
Shingles, ₱ M	3 2

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., February 23, 1876.

BEANS.

Bayo, ₱ ctl	3 50	@	3 67½
Butter	1 75	@	2 00
Pea	1 75	@	2 00
Pink	2 00	@	2 50
Sm'l white	1 70	@	1 85

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	22½	@	25
Point Reyes	25	@	27½
Firkin	25	@	27½
W'st'n Reserve	15	@	20
New York	25	@	27½

CHEESE.

Cheese, Cal., lb	14	@	16
do Old	10	@	15
Eastern	15	@	20

EGGS.

Cal. fresh ₱ doz	30	@	32½
Ducks'	—	@	35
Oregon	30	@	35
Eastern	22	@	25

FEED.

Bran, per ton	—	@	22 50
Corn Meal	29 00	@	30 00
Hay	15 00	@	19 00
Middlings	32 50	@	— —
Oil cake meal	—	@	37 50
Straw, ₱ bale	— 65	@	70

FLOUR.

Extra ₱ bbl	5 75	@	6 12½
Superfine	4 75	@	5 00

FRESH MEAT.

Beef 1st quality lb	7	@	9
Second do	6	@	7
Third do	5½	@	6
Spring Lamb	10	@	12
Mutton	5	@	6
Pork, undressed	6¾	@	7
do, dressed	9½	@	9¾
Veal	5	@	7
Milk Calves	8	@	8½

GRAIN, ETC.

Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 35
Chevalier	1 30	@	1 50
Corn, White	1 05	@	1 10
do Yellow	1 12½	@	1 30
Oats	2 00	@	2 25
Rye	1 50	@	1 55
Wheat, shipping	1 85	@	1 90
do milling	1 90	@	1 95

HIDES.

Hides, dry	15	@	16½
do wet salted	7	@	7½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	18	@	22½
do Strained	6	@	12½

HOPS.

New crop	10	@	12

NUTS—Jobbing.

Almonds, hard sh'l lb	8	@	10
do, soft sh'l	16	@	20
Brazil do	14	@	15
Cal. Walnuts	11	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	1 75	@	2 25
Stockton	1 50	@	1 87½

POTATOES.

Petaluma, ₱ sk	1 50	@	1 60
Salt Lake	1 65	@	1 70
Sac River	1 50	@	1 62½
Humboldt	1 50	@	1 65
Early Rose	—	@	2 87½
Sweet	—	@	3 37½

POULTRY & GAME.

Hens, per dz	8 00	@	9 00
Roosters	9 00	@	10 00
Broilers	7 00	@	8 00
Ducks, tame, dz	10 00	@	11 00
do Mallard	3 00	@	4 00
do Canvass	4 00	@	4 50
Geese, per pair	2 50	@	4 00
Wild Grey dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	16	@	20
do Dressed	18	@	23
Quail, per doz	1 50	@	1 75
Snipe, Eng., doz	1 50	@	2 00
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 25
Hare, per dz	2 00	@	3 00

PROVISIONS.

Cal. Becon, L't, lb	15	@	15½
do Medium	14	@	14¾
do Heavy	14	@	—
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'n Should's	—	@	10
Hams, Cal	14	@	14½
do Armour	16	@	16½
do Worster's	17	@	17½
do Dupee's	17	@	17½

SEEDS.

Alfalfe, Chile lb	8½	@	11½
do California	11	@	13
Canary	20	@	22½
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flexseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Gress	25	@	30
Perennia do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do. Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy	11	@	13

TALLOW.

Crude, ₱ lb	6½	@	7½
Refined	8¾	@	9

WOOL, ETC.

FALL—			
Seedy, ₱ lb	11	@	12½
Choice free	12	@	18
Burry	9	@	11
Oregon	—	@	—
Smoked	—	@	8
Cod Fish, lb	12	@	15
Lake Big. Trout	—	@	30
Beef, tend, ₱ lb	15	@	18
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	—	@	15
Porter House St'k	—	@	20
Sirloin do	12	@	15
Round do	8	@	10
Pork, rib, etc., lb	12	@	12½
Chops, do, ₱ lb	15	@	—
Veal, ₱ lb	10	@	15
Cutlet, do	15	@	25
Mutton-chops, lb	10	@	12
Leg Mutton, ₱ lb	10	@	15
Lamb, ₱ lb	20	@	22½
Antelope	15	@	20
Tongues, beef	75	@	1 00
do, do, smoked	75	@	1 00
Tongues, pig, ₱ lb	12½	@	—
Bacon, Cal., ₱ lb	16	@	20

FRUITS, VEGETABLES.

Apples, pr lb	5	@	8
Pears, per lb	5	@	12½
Apricots, lb	—	@	—
Peaches, lb	—	@	25
Plums	—	@	—
Pine Apples, each	50	@	1 00
Lady Apples	—	@	25
Grapes	—	@	25
Bananas, ₱ doz	75	@	—
Muskmelons	—	@	—
Watermelons	—	@	—
Blackberries	—	@	—
Cal. Walnuts, lb	—	@	25
Cranber'es, Org., do Eastern qt	—	@	20
Huckleberries	—	@	—
Strawberries, lb	—	@	—
Raspberries, lb	—	@	—
Gooseberries	—	@	—
Currants	—	@	—
Cherries, ₱ lb	—	@	—
Nectarines	—	@	—
Pomegranates	—	@	—
Oranges, ₱ doz	50	@	75
Lemons	75	@	—
Limes, per doz	20	@	25
Figs, dried Cal	12½	@	15
Figs, Smyrna, lb	25	@	35
Asparagus, lb	50	@	62½
Artichokes, doz	75	@	1 25
do Jerusalem	—	@	8
Beets, ₱ doz	20	@	25
Potatoes, ₱ lb	2	@	3
Potatoes, sweet	—	@	6
Broocoli, each	10	@	15
Cauliflower	10	@	15
Green Peas ₱ lb	—	@	50
Cabbage, per hd	10	@	12½
Oyster Plant, bn	—	@	12½
Carrots, ₱ doz	—	@	25
Celery, ₱ dz	75	@	1 00
Cress, ₱ doz bun	20	@	25
Onions	3	@	4
Turnips, ₱ doz bunches	—	@	25
Brussels Sprouts	6	@	8
Eschalots	—	@	25
Dried Herbs, doz	30	@	50
Garlic ₱ lb	12½	@	—
Green Corn, doz	—	@	—
Lettuce, ₱ doz	25	@	—
Mint, ₱ bunch	—	@	12½
Mushrooms, ₱ lb	—	@	25
Horse radish, ₱ lb	15	@	25
Okra, dried, ₱ lb	—	@	—
Pumpkins, ₱ lb	5	@	6
Parsnips, doz	—	@	25
Parsley	12½	@	—
Pickles, frsh, ₱ lb	—	@	—
Radishes, doz	20	@	25
Sage	—	@	25
Marrowfat, do	1½	@	—
Hubbard, do	—	@	—
Mangoes, ₱ doz	—	@	—
Spinage ₱ bskt	—	@	12½
Rhubarb	10	@	12
Green Chilies	—	@	25

LEATHER.

[WHOLESALE.]

WEDNESDAY M., February 23, 1876.

City Tanned Leather, ₱ lb			22@29
Santa Cruz Leather, ₱ lb			22@28
Country Leather, ₱ lb			22@28
Stockton Leather, ₱ lb			25@29
Jodot, 8 Kil., per doz			$50 00
Jodot, 11 to 13 Kil., per doz			68 00@ 79 00
Jodot 14 to 19 Kil., per doz			82 00@ 94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz			57 00@ 74 00
Cornellian, 12 to 16 Ko			57 00@ 67 00
Cornellian Femates, 12 to 13			63 00@ 67 00
Cornellian Femalcs, 14 to 16 Kil			71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil			58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil			66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil			72 00@ 74 00
Simon, 18 Kil., ₱ doz			61 00@ 63 00
Simon, 20 Kil. ₱ doz			65 00@ 67 00
Simon, 24 Kil. ₱ doz			72 00@ 74 00
Robert Calf, 7 and 9 Kil			35 00@ 40 00
French Kips, ₱ lb			1 00@ 1 15
California Kip, ₱ doz			40 00@ 80 00
French Sheep, all colors, ₱ doz			8 00@ 15 00
Eastern Calf for Backs, ₱ lb			1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz			9 00@ 13 00
Sheep Roans for Linings, ₱ doz			5 50@ 10 50
California Russett Sheep Linings			1 75@ 4 50
Best Jodot Calf Boot Legs, ₱ pair			5 00@ 5 25
Good French Calf Boot Legs, ₱ pair			4 00@ 4 75
French Calf Boot Legs, ₱ pair			4 00@ —
Harness Leather, ₱ lb			24@ 32½
Fair Bridle Leather, ₱ doz			48 00@ 72 —
Skirting Leather, ₱ lb			33@ 37½
Welt Leather, ₱ doz			30 00@ 50 00
Buff Leather, ₱ foot			17@ ½
Wax Side Leather, ₱ foot			17@

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., February 23, 1876.

POULTRY, GAME.

Chickens	75	@	1 00
Hens	75	@	1 00
Eggs, Hens	55	@	60
do Ducks'	—	@	60
do Farallones	—	@	—
Turkeys, ₱ lb	20	@	25
Ducks, each	1 00	@	1 25
Geese, wild, pair	50	@	1 00
Tame, ₱ pair	3 00	@	4 00
Snipe, ₱ doz	1 25	@	1 50
do English	—	@	3 00
Quail, per dozen	75	@	2 00
Prairie Ch'k s, pr	—	@	—
Hares, each	25	@	50
Rabbits, each	15	@	20
Squirrels do	—	@	15
Hams, Cal ₱ lb	16	@	20

FISH, MEATS, ETC.

Flounder, ₱ lb	15	@	30
Salmon, ₱ lb	15	@	25

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., February 23, 1876.

BAGS.

Eng. Stand Wht	10½	@	11
Neville & Co's			
Hend Sewed	10½	@	11
24x36	11	@	11½
24x40	12	@	12½
Mechine do 24x40	12	@	12½
" " 23x40	11¼	@	11½
" " 22x40	11	@	11¼
" " 22x36	9½	@	10
Flour Sacks ½s	9½	@	11
" " ¼s	6¼	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	8¾	@	9
do 40-in	7½	@	8
Wool Sacks, 3½ lbs	45	@	50
do 4"	50	@	52½
Stand. Gunnies	—	@	15
single seam do	—	@	—
Bean Bags	7½	@	8
Barley Bags 24x36	11¾	@	12
do 23x40	11½	@	12
do 24x40	12	@	12½
Oat Bags, 24x40	12	@	12½
do 28x36	—	@	13½

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Teble do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Serdines, qr box	1 65	@	1 90
do hf boxes	3 00	@	— —

COAL—Jobbing.

Australien, ₱ ton	9	@	00
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	16	@	— 18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Sorenton	13 00	@	16 00
Vencouver's Isl.	10 50	@	13 00
Charcoel, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Coste Rice per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in cs	25	@	—
Chicorv	27	@	—

FISH.

Sec. Dry Cod, new	4	@	4½
cases	6	@	7
do boneless	8½	@	10
Eesteru Cod	7½	@	8
Seimon in hbls	8 50	@	9 00
do ½ bbls	4 50	@	5 00
do 2lb cens	2 25	@	2 30
do 1lb cens	1 25	@	1 30
do Col. R. ½ h	5 00	@	5 50
Pick. Cod, hbls	22 00	@	—
do ½ hbls	11 00	@	—
Meck'l, No. 1, ½ bls	9 00	@	11 00
" Extre	—	@	12 00
" in kits	1 90	@	2 00
" Ex mess	4 90	@	4 50
" Ex mess, ½ bs	—	@	2 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Puiu	7	@	9

NAILS.

Assorted size, keg	3 75	@	4 00

OILS.

Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Cestor Oil, No. 1	—	@	1 25
Baker's A A	—	@	1 40
Cocoanut	55	@	60
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	80	@	—
do boiled	—	@	75
China nut in cs	70	@	75
Sperm, crude	—	@	1 40
do bleached	1 90	@	2 25
Coast Wheles	47½	@	50
Polar, refined	—	@	—
Lard	—	@	—
Oleophine	—	@	28

PAINTS.

Pure White Lead	9¾	@	10½
Whiting	—	@	2
Putty	4	@	5¾
Chelk	—	@	2½
Paris White	2¾	@	—
Ochre	3	@	5
Venetien Red	3½	@	5
Red Lead	10	@	11
Litherge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Oh Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metellic Roof	1 30	@	1 60

RICE.

China No. 1	6 00	@	6 25
Hewelian, ₱ lb	—	@	8
Caroline, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00

SOAP.

Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	10

CANDLES.

Grent's	16½	@	17
Mitchell's	20	@	22

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14½	@	1½
Pimento	16	@	17
Gr'nd Allsp'rdz	—	@	1 12½
do Cassie do	—	@	1 50
do Cloves do	—	@	1 50
do Musterd do	—	@	1 20
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mece do	—	@

Nevada County and its Prospects.

A recent number of the Nevada *Transcript* says:

The county of Nevada is in size about the same as the State of Rhode Island, having an area of nearly 1,200 square miles. Its surface is generally mountainous or hilly, with occasional fertile valleys between. The soil is of a reddish color, and it is mostly side hill or table land. With irrigation, a great portion of it will produce almost any kind of crops. There is at present, however, but a mere tithe of the land cultivated. Last year it was estimated that only 16,000 acres were used for agricultural purposes. Doubtless when the railroad is completed a greater area will be cultivated.

Agriculture.

As fine potatoes as can be grown in the State were raised here the past season. There are thousands of acres of land adapted to their cultivation, which is conveniently located for irrigation, yet there were only 3,000 tons raised in all the county last year. Much of the soil is also adapted to the production of wheat, barley and hay, even without irrigation, yet there was not half enough produced to supply the home demand, and the balance had to be furnished by ranchers from near the valleys. The county only produced last year about 3,000 tons of hay from about the same number of acres. One-half the same area sown to alfalfa would produce double the amount if convenient to irrigation. The soil and climate are well adapted to

Fruit Growing,

And the fruit is acknowledged to be superior to that grown in the valleys, yet in all the county there are only a little over 400,000 trees and vines of every kind. In all the lower and middle portions of the county trees grow luxuriantly and produce bountifully with but very little care and cultivation. Fruit growing can be made an important industry, and one that will prove remunerative as soon as means to ship to market are furnished. Nut bearing trees seem almost indigenous to the soil. They grow rapidly and bear liberally, but there are as yet few planted. There are in the neighborhood of 1,200 miles of mining and irrigating ditches, along the line of which are opportunities of irrigating ten times the soil now under cultivation without materially interfering with the supply necessary for mining.

The Population of the County

Is something less than 20,000, and its assessed value of property is less than $9,000,000. Quartz mining is the leading interest in the southeastern part of the county, yet there are but 43 mills in operation in the county. There are ledges in every direction, yet unworked, however, and it is expected the new process of Fryer will in a few years enable four times the present number worked to be properly developed. The whole upper portion of the county is clothed with pine, spruce, fir and other trees adapted to the manufacture of lumber, yet there are only 27 saw mills in operation, and only 50,000,000 feet of lumber sawed and 25,000,000 shingles made annually. There are over 100 miles of ancient river channel which are

Rich With Precious Metals

Within the borders of this county, yet there are probably less than ten of them even commenced to be worked. From the above facts we feel justified in saying that the natural resources of the county are not excelled by any similar one in the State; and but comparatively little has yet been done to develop them; that the field for enterprise here presented is superior to any section, and that in the near future, when it becomes known, capitalists and men of small means will avail themselves of the splendid opening awaiting their investment. The county is capable of supporting tenfold its present population. The prospect at present is certainly very flattering for the unparalleled prosperity of this section, and we see nothing to prevent the county from becoming second in importance in wealth and population only to but very few in the State.

KILLED BY A MOUSE.—A extraordinary occurrence was brought to light at an inquest held a few days since on the body of a man in South London. It appears that in a work room where many young girls were at work, a mouse suddenly made its appearance on the table, causing, of course, considerable commotion and a general stampede. The intruder was seized, however, by a young man who happened to be present, but the mouse slipped out of his hand, and running up his sleeve, came out between his waistcoat and shirt at the neck. The unfortunate man had his mouth open, and the mouse, on looking for some place of concealment, entered the man's mouth, and he, in his fright and surprise, swallowed it. That a mouse can exist for a considerable time without much air has long been a popular belief, and was, unfortunately, proved to be a fact in the present instance, for the mouse began to tear and bite inside the man's throat and chest, and the result was that the unfortunate fellow died, after a little time, in horrible agony. Several witnesses have corroborated the above facts, and medical testimony as to the cause of death having been given, a verdict of accidental death was returned.

AFTER filing a saw, place it on a level board and pass a whetstone over the side of the teeth until all the wire edge is off them. This will make the saw cut true and smooth, and will remain sharp longer. The saw must be set true with a saw set.—*Scientific American.*

Nurserymen.

1865. 1875

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our object aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	25	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	20	—	Fertile de Pallien	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

LOS GATOS NURSERIES,

S Newhall. Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,

P. O. Box, 722. 516 Battery Street.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

BLUE GUM TREES.

400,000 For Sale. Price from $10 to $45 per 1,000. Also a fine stock of Ornamental Trees, Etc.

Main Depot, 118 East 12th street, Oakland. Branch Depot, Market street, opposite new City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

BAILEY & CO.,

Box 80, Oakland, Cal.

TREES FOR FRUIT AND ORNAMENT.

500 Acres of Trees at Wholesale & Retai

Pear, Apples, Cherries, Quinces.
Peaches, Plums and other Small Fruits.
New and Rare Ornamental Trees and Shrubs.
Evergreens, large quantity, large variety, cheap.
Cut-leaved Birch, Purple Beech, Weeping Trees.

Clematis Jackmanni—Hardy and perpetual; blooms profusely until frozen up.

Perpetual White Clematis, 15 sorts. We have over 70 varieties of Clematis, in many shades of color, from dark rich purple to pure white—strong plants, safely sent by mail.

Roses. Moss, Tea, Climbing and Perpetual.

Small Packages sent safely by mail and express.

☞Catalogues free. Address

T. C. MAXWELL & BROS.,
Geneva, N. Y.

100,000 BLUE GUM TREES

FOR SALE.

Grown in open ground and of most excellent quality—FAR SUPERIOR TO ANY BOX GROWN PLANTS—offered at Greatly Reduced Rates.

500,000 SEEDLINGS AND BOX GROWN TREES

In fine order, at ten and fifteen dollars per thousand. All trees delivered on wharf in San Francisco at nursery rates. We wish it distinctly understood our trees for forest planting are RESPONSIBLE NURSERY STOCK. Address

W. A. T. STRATTON,

PACIFIC FOREST TREE NURSERIES,

Petaluma, Cal.

BAY NURSERY,

OAKLAND, CAL.

Lock Box, - - - 331

JAMES HUTCHISON, Proprietor.

[Established 1852.]

Has for sale an Immense Stock of EVERGREEN TREES, SHRUBS and FLOWERING PLANTS at GREATLY REDUCED PRICES. Monterey Cypress Seedlings from two and a half to five dollars per hundred. Two and three year plants two to six feet, twelve and a half to twenty-two dollars per hundred. Chinese Arbor Vitæ, twelve to sixteen inches, eight dollars per hundred.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgeau and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Luisante.

Chestnut: Marron de Lyon and Combale.

Walnut: Preparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pinos, Cypress, etc.; Fine assortment of Camellias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 47 Cal. Market S.F

Seedsmen.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,

607 Sansome St., San Francisco.

ALL ABOUT GARDENING

For Home Use and for Market, in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks. ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill.

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

FREE to all who wish their Seed directly from the grower, my large, elegantly illustrated Vegetable and Flower Seed Catalogue. Address, JAS. J. H. GREGORY, Marblehead, Mass.

FARMERS, GET THE BEST!

WHITE EXCELSIOR OATS. Average yield, 80 bushels to the acre. Weighs 40 pounds per bushel. Propagated and for sale only by the undersigned. One-quarter bushel, $2; one-half bushel, $3.50; per bushel $6.50; two bushels or more, $6 per bushel. Bags free Send money by P. O. order or registered letter. Sample post-paid for three stamps. Address

WM. M. KENTON,

Lock Box 532. Jackson, Mich.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers,

No. 224 Sansome street. SAN FRANCISCO.

The Best Agricultural Paper in America.

PORTERVILLE, February 10, 1875.

TO THE EDITORS AND PUBLISHERS OF THE RURAL PRESS:—*Dear Sirs:* I am going to change my residence, and I will take the RURAL PRESS again, when I get settled, and will get back numbers. I can say without flattering you that it is the best agricultural newspaper in America, and I will use my influence in your behalf.

Yours with respect, JOHN MCINTIRE, Jr.

1845. CHARTER PERPETUAL. 1876.

Economy, Security.

Mutual Benefit Life Insurance Company,

NEWARK, N. J.

Assets, January 1st, 1876, - - - $31,085,011 11

LEWIS C. GROVER, Pres't. JAMES B. PEARSON, Vice-Pres't.

EDWARD A. STRONG, Sec'y. BENJ. C. MILLER, Treas. B. J. MILLER, Actuary.

The following is a summary of the business of this Company, from May 1, 1845:

Total Receipts,	$81,149,507 76
Paid Losses and Endowments,	19,284,541 48
" Dividends or Return Premiums,	19,224,524 15
" Surrendered Policies,	4,284 344 82
" Expenses—Management, Commissions, Taxes, etc.,	8,167,913 05
The Ratios are:—	
Expenses, (excluding taxes,)	8.60 per cent.

These results are more favorable to the insured than those presented by any Company in the World.

ALL KINDS OF APPROVED POLICIES ISSUED.

☞Dividends paid annually, or they can be applied on the Accelerative Endowment Plan, as ORIGINATED BY THIS COMPANY, to which particular attention is called.

ACCELERATIVE ENDOWMENT PLAN.

The plan is intended to meet the wants of those who wish protection for their dependents in case of premature death, and at the same time make a wise provision for themselves in the ovent of surviving the productive period of life.

The plan proposes that instead of using divideuds in reduction of the annual premium, the insured may, at his discretion, pay his premium in full in cash, and surrender his dividends to the company. In consideration of this surrender, the company will agree to pay the sum assured when the policy holder shall have attained a certain age, or at his previous death, instead of at death only, thus onabling him to procure an Endowmeut Policy at the usual rates charged for policies payable at death only.

If the policy is already an Endowment, payable at a given age or previous death, the surrender of the dividend will enable the company to agree to pay the policy at a still younger age.

Advantages of the Accelerative Endowment Plan

Over any other yet offered to the public, will be apparent when the following features are considered:

It can he applied to any policy, whether "Life" or "Endowment," to old business as well as new, where there is no preminm-loan, or where the existing premium-loan shall be paid off.

It euables one to obtain an "Endowment" policy at the usual "Life" rates.

The expenses incident to this form of "Endowment" insurance being no greater than in case of "Life" policies, its superiority to the old style of Endowment insurance will be readily perceived.

It not ouly has the effect of constantly reducing the age at which the company will agree to pay the policy, but also, every dividend so applied becomes itself the source of future snrplus, thus causing the divideuds to increase much more rapidly from year to year than would be the case if they were used in payment of the annual premiums.

The assured can, in any year, apply his dividend in payment of premium, and allow the time at which the policy matures to remain as at the previous year's settlement.

As each dividend is surrendered, the company will make a positive agreement as to the time at which the policy will be paid, and the amount payable at such time.

If at any time the assured becomes disappointed or dissatisfied with the plan, he is at liberty to use his future dividends in payment of premium, and to retain all the advantages accruing from the surrender of past dividends.

If at any time the party should be unable or unwilling to continue payment of premiums, the company will, within three months from the date of lapse, allow the equitable value of the policy in paid-up insurance.

☞The Mutual Benefit Life Insurance Company issues Policies insuring the lives of healthy persons residing in any part of the United States.

JAMES MUNSELL, Jr., Agent of Insured,

And Acting Agent for persons desiring Life Insurance,

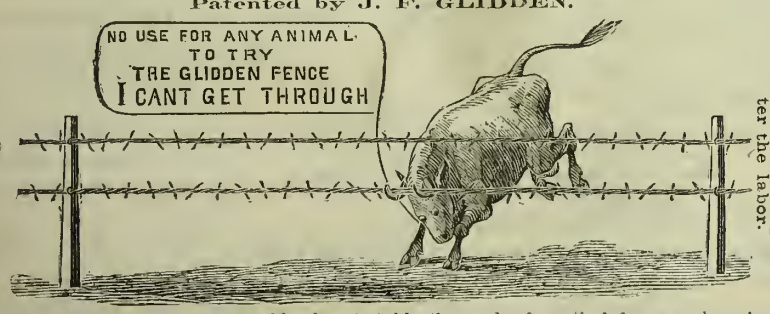
224 Sansome Street, - - - - - San Francisco.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can he put up for one-quarter the labor of any other fence. 5. Cattle, mules, aud horses will uot rub against and break it down. 6. The wind has no effect upon it, and fires will not hurn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from hotweeu the twisted wire, and cannot he bent, broken, or rubbed off, and never need replacing. 18. The only coiled harb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barh put on hy machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

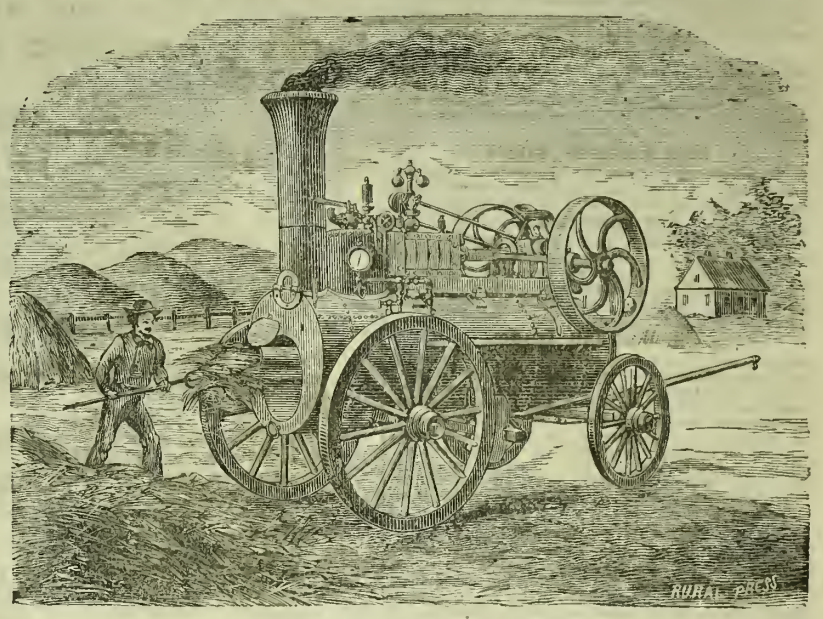
50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874, re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength and power will surpass anything ever before invented. They are unquestionably the best engine in the world. They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the larges farmers and best threshers in different parts of the State, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been recsived.

CAUTION.

This is to give notice that I am the luventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw hurning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co., as my sole agents for the manufacture and sale of my straw hurning engines on the Pacific coast, and all orders should be addressed to them.

San Francisco, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a largo scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials and all other information, to our office, 108 and 110 Front street, San Francisco, and corner Second and J Streets, Sacramento.

MARCUS C. HAWLEY & CO.

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow. Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the point, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..	$85 00	Extra Shares—No. 1.....	$3 00	Landsides for single Plows..	$2 50
No. 2 " " " " ..	90 00	" " No. 2.....	8 50	" " Gang Plows...	1 50

All kinds of casting done on short notice.

San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

E. S. LEE & CO'S

Illustrated and Descriptive Circular of

WATERS'

Improved Tree Pruner

For 1876,

Will be mailed free to applicants. We offer large discounts to Jobbers and Hardware Dealers. Receives first premium at all fairs where shown.

Price of 4 ft. pole.....$2 50
" 6 ft. pole..... 2.75
" 8 ft. pole..... 3.00
" 10 ft. pole..... 3.25

Manufactured only in Rochester, N. Y.

S. K. CUMMINGS. 1858. H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-1y

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS? Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill.

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

THE PACIFIC RURAL PRESS
For 1876.

BETTER AND BETTER.

While we cannot promise to labor any more faithfully or earnestly for our readers in the future than we have in the past, we shall endeavor to make the PRESS MORE COMPLETE IN ALL ITS DEPARTMENTS.

Its Editorials,

Will be written by able and conscientious writers, and with such judgment and care as to render the journal of the highest usefulness to its readers, and to the permanent welfare of the new and progressive community its columns especially represent.

New Editorial Talent

Has been engaged to work in co-operation with the senior editor of the RURAL and other assistants, in extending forward some of its important branches.

The Live Stock

Departments—including the horse, horned stock, sheep, goat, swine and poultry interests—will receive constant attention, and our researches for reliable information, which shall be of practical use to our Occidental readers, shall not be limited to any narrow sphere.

The Dairying Trade

Of this coast is yet in small dimension to what it might and should be—to what it is destined soon to be. Intelligent experience; careful experiments; the dissemination of demonstrated facts in regard to the best breeds of stock; information of the best grasses for pasturage for all seasons; the best machines and methods for manufacturing; hints for marketing, etc., will be some of the subjects to be treated in an earnest way in our columns, that the RURAL PRESS may well do its share in advancing one of the most promising industries of the coast.

Our Correspondents

Number some of the ablest domestic writers in the Union, and we are proud to say we would not exchange their co-operative pens for those of any other corps of newspaper correspondents. They are not only friends at heart of our paper, but of the true cause of progressive manhood and womanhood everywhere. Our sources of

Fresh Information

Are not equalled by those of any other agricultural journal in the United States, and making the best use possible of our facilities, we are determined that every issue of the RURAL PRESS for 1876 shall teem with a choice and well dressed variety of desirable information. The pursuit of

Floriculture and Horticulture

On the Pacific slope presents a field of delightful study more prolific in novelty and fruitful in profits than awaits the student and laborer in any other portion of the globe. We trust to exchange valuable hints with our florists, vineyardists and fruit growers throughout the Pacific States.

Our HOME CIRCLE department will contain none other than

Chaste Literature

In pleasing variety, calculated to amuse, instruct and elevate both the young and old boys and girls, who may turn to its columns for pastime and self-improvement.

Our Illustrations

Will be numerous and calculated to please the eye and help the mind to see quickly and correctly many important objects that might otherwise pass their knowledge. Some of them will enable farmers to see and contrast for themselves many kinds of new and important machines and implements. This illustrated feature of our paper, although expensive to its publishers, is an important one to rural readers—especially in a new and rapidly developing country.

The Mind and Health

Of the readers of the RURAL will be cared for in our GOOD HEALTH, USEFUL INFORMATION and DOMESTIC ECONOMY columns. Our GENERAL NEWS ITEMS, NEW INVENTIONS, SCIENTIFIC and MECHANICAL MISCELLANY articles will be continued throughout the year.

Agricultural Notes.

Under this head will be reported weekly, carefully selected and condensed items concerning the agricultural improvements and progress of the various counties and districts of the wide field we represent. The

Information of the Resources

Of this coast, set forth in the various departments of our paper, is not only of important benefit to its readers, but to every property holder on the coast, through the influence it exerts in stimulating enterprise at home and healthy immigration from abroad. There are but few persons interested in agricultural pursuits here who are not benefited annually by our publication above the amount of its subscription price.

Market Reports.

In its commercial department, the RURAL PRESS will spare no effort to furnish the agriculturist an accurate and trustworthy schedule of the prices which various productions are gaining in the market. We regard this department of our paper as worthy of the most careful and discriminating labor. In our review of the markets we shall present all attainable information concerning the tendency of production of various supplies and the features of the trade in them. We shall afford all the evidence which can be secured for forming true judgment of the features of agricultural trade and commerce. Although this is a difficult department we shall especially strive to give the best weekly domestic produce reports in the city.

The Best is Cheapest.

We might fill our advertising columns with high-priced

Quack and Swindling Advertisements,

And our reading columns with paid puffs, and thereby be enabled to furnish a large paper at a remarkably low price, but *we will not do it.* We believe our subscribers prefer a good paper at a reasonable price to the so-called cheap papers that trifle with their confidence. Time is precious, and patrons will find that reading the cheapest which is most suitably prepared for their special avocation and locality.

The Friends of Our Paper

Have done much since its first issue, in January, 1870 to make the RURAL PRESS of the Pacific coast what it is to-day. Thanking them for past kindnesses, we invite all our readers to make known its merits to those who are not yet its reading or advertising patrons.

A Farmer's Paper Throughout.

We repeat that the PACIFIC RURAL PRESS will continue to be a faithful advocate of the best and highest interests of agriculturists on this coast—according full justice to other kindred industries in conjunction with which agriculture alone can permanently thrive.

A Handy Map

Of California and the principal portion of Nevada will be furnished free to all subscribers who pay one year in advance, during the year 1876. The map is plain, printed on tinted paper, about 16x20 inches, showing townships in California, and the counties, railroads and principal towns in California and Nevada.

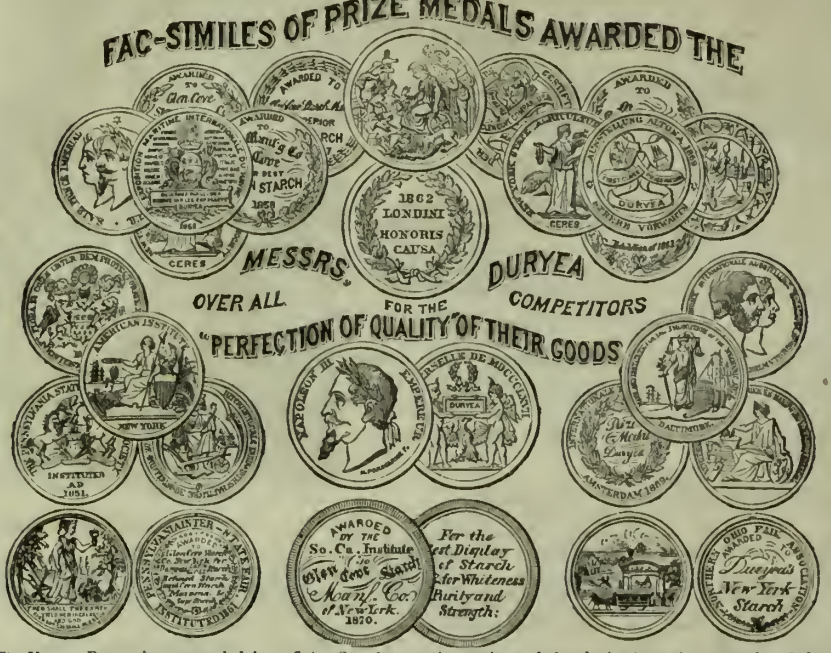
We Prepay the Postage

On all papers sent to subscribers in the United States.

SUBSCRIPTION RATES, payable in advance: One year, $4. Sample copies free to those who will assist in obtaining subscribers.

DEWEY & CO., Publishers,
No. 224 Sansome street, S. F.

DURYEA'S SATIN GLOSS STARCH
AND
DURYEA'S IMPROVED CORN STARCH
Are the Best in the World.
USE IT ONCE AND YOU WILL USE NO OTHER.
For Sale by All Grocers.



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast,
San Francisco, California.

W. R. STRONG, Seedsman. Established 1857. 1876. ROBT. WILLIAMSON, Nurseryman, Established 1865.

SEEDS. **W. R. STRONG & CO.** TREES.

S. F. Office, 418 & 420 Clay St., Sacramento Office, 8 & 10 J St., Nursery Grounds, Sacramento Co.

GREAT REDUCTION IN SEEDS.

Seeds heretofore retailed by all dealers at Ten cents per paper, we will now furnish at Five cents. They will be forwarded by mail, postpaid, to any part of the United States without extra charge (except on heavy Seeds, such as Peas, Beans and Corn; on which postage will be added). This will cover Vegetable and Flower Seeds. Also, a great reduction on all higher-priced papers. Money should always accompany orders, and may be forwarded in registered letters, or by postal orders at our risk. Our Seeds are all fresh, true to name and reliable.

Our assortment is probably the finest on the Pacific Coast.

Our Stock is full and fine. Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, W. R. STRONG & CO., House in San Francisco, STRONG & WILLIAMSON.

ALFALFA a Specialty, and furnished to the trade, or in small quantities, at lowest possible rates.

Just Published.

THE PUBLIC LANDS
OF CALIFORNIA
AND
U. S. LAND LAWS,

With a Map of California and Nevada.

A BOOK OF INFORMATION,

Especially valuable to Immigrants and Preemptors, and interesting to the public generally.

Contains a general statement of amount of Public Lands now open to pre-emption; Rail road Lands, and where they are situated, how reached; and general instructions for locating and holding.

Contains, also, facts of general interest to all in regard to the chief industries of California. Compiled by H. M. VAN ARMAN.

PUBLISHED AND SOLD BY DEWEY & CO., PUBLISHERS OF THE PACIFIC RURAL PRESS, SAN FRANCISCO, CAL.

[PRICE 50 CENTS, POST PAID.]

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns. Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

Fruit Trees

In great variety and quantity, including Apricots, Apples, Cherries, Figs, Peaches, Pears, Plums, etc., all warranted to be true to labels; for sale at a great sacrifice on account of

REMOVAL.

Peaches a specialty, and is the best and most *complete* assortment on the Pacific Coast. Also Almond, Walnut, Maple, Poplar and Mulberry trees for shade and fruit

TERMS CASH. Send orders by mail or express, or apply at the Vacaville Nursery, 3 miles west of town, on the Suisun road. D. E. HOVEY.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
JOHN ROSTRON—California.
G. W. MCGREW—Santa Clara county.
J. M. MCARTHUR—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
J. W. RILEY—San Francisco.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

NEW CROP OF
BLUE GUM SEED.

GRASS AND CLOVER SEEDS.
FLOWER AND VEGETABLE SEEDS.
TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,
No. 317 Washington Street,
v3-tf SAN FRANCISCO.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock
EVER OFFERED ON THE PACIFIC COAST.
Prices Unusually Low.

Trade Price-List on application.

*** My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,
(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks. PIGEONS. RABBITS. FERRETS.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.
Please enclose stamp.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, MARCH 4, 1876. [Number 10.

Agriculture in South Australia.

Two weeks ago we announced the presence in this city of Hon. Samuel Davenport, Commissioner from South Australia to the Centennial. Mr. Davenport's stay here was very short, and he regretted exceedingly his inability to stay and examine the agriculture of our State. We regret it also, for in her directions of agricultural progress South Australia is related to California. As Mr. Davenport is himself a practical agriculturist and one of the foremost in the land whence he comes, we doubt not a full examination of our practices would have been of advantage to him, as the recital of his experience would have been to us. To us, however there is a possibility of entertaining our readers at this time with brief notes of South Australian methods, which we gain from the documents which Mr. Davenport kindly placed upon our table.

The Country.

The colony of South Australia, which was established in 1834 by act of Parliament, has an area of about 600,000,000 acres. Within this expanse there is almost every variety of soil and physical features, varying from arid plains to timbered mountain ranges. The southern part of the colony is wonderfully productive, and the quality of some of its productions have achieved a world-wide reputation. Wheat grown within a few miles of the metropolis, the city of Adelaide, has received the gold medal at several of the world's fairs in Europe. In grapes and wine, olives and olive oil, sheep and wool, and in the wide variety of semitropical fruits, the colony has proved its quality by its deeds. It is impossible, of course, for us to describe, even in a general way, the capabilities of the colony, nor would a generalization be of much interest to our readers. But we have at hand notes of special agricultural practices which will be perhaps both interesting and suggestive.

Wheat Growing.

In growing wheat the colonists have practiced that system of slight cultivation which rich virgin soil renders profitable. They have plowed but three or four inches deep and cast in the seed, and obtain crops which have averaged, throughout the whole acreage of the colony, from 4¼ to 14¼ bushels to the acre, according to the season. William Hareus, in his pamphlet on the agriculture of the colony, says: "The expense of cultivation is small and the gathering in of the crop, when it is fully ripe, costs a mere trifle. The greatest invention ever produced for the agriculturists of South Australia is Ridley's reaping machine, which reaps and threshes the wheat by one simple process. A machine of this kind could only be used where the climate is dry and where the grain is allowed to ripen and harden in the ear. As soon as the crop is fully ripe the machine is put into the field and the wheat is reaped and threshed with amazing rapidity and at a very small expenditure. It may safely be said that the cost of farming has been reduced to the minimum in South Australia."

Although this labor-saving system of agriculture is put forth it is no more endnring in South Australia than elsewhere. Already there are "grain sick" fields, and efforts are made to restore them with growths of alfalfa.

The greatest interest in South Australian practices may be found in their experience and methods with the growth of fruits which are now receiving wide attention from our own agriculturists.

Olives.

Mr. Davenport is himself one of the leading olive growers of the colony, on his estate near Adelaide, which bears the name of Beaumont, a title fairly won by its beautiful location. The olives on Beaumont are grown partly in the orchard snrronnding the residence, and partly in a hedge ronnd a seven and a half acre vineyard. The trees in this hedge are four feet apart, being 12 years old, and having grown up strong are about eight feet high, and have their branches knit close in amongst each other, forming an impenetrable hedge. In growing olives for a hedge, however, their productiveness is hindered considerably by closeness of planting. The 150 gallons of oil made has been produced from 75 cwt. of fruit, 45½ cwt. of which were pnrchased from neighhors at 6s. per cwt. delivered. One cwt. of fruit produces two gallons of oil. The yield per tree varies according to age and size from one to 20 gallons, although a celebrated olive tree has been known to give 55 gallons. Of course Mr. Davenport's hedge is no criterion, as trees planted at the right width apart ought at 12 years of age to be about 25 feet high. The olives on Beaumont were picked by children at 5d. per two-gallon bucket, and smart pickers on good trees can make 2s. per day. The extraction of the oil, which takes place in a portion of Mr. Davenport's extensive building for making and storing wine, is as follows: The fruit is put into a Chilean mill of Scotch granite, the two rollers being three feet in diameter and one ton each in weight, driven by a horse. The crushed pulp is then put into circular flat coarse bags, two feet in diameter, and built in a pile enclosed by a circular upright wooden frame, and subjected to immense pressure by means of a lever. From this press the oil is allowed to run into a receiver containing water. This receiver is fitted with a pipe which draws off the water underneath the oil which floats on the top. The first, or virgin, oil is most valuable. After this is obtained hot water is applied to the pulp, and a second quality is obtained, which is employed largely in cloth manufacture. The oil, after standing a month to settle, is filtered into porcelain jars. The prices obtained by Mr. Davenport are 10s. (wholesale) for the virgin oil, and 8s. for the seconds, with an unlimited demand.

Planting and Propagating Olives.

Mr. Davenport plants his olive trees 24 feet apart each way, triangularly. He has just put in a field of seedling trees. When they are two years old it is intended to stump the bad kinds and graft them with good varieties.

The prison labor of the Adelaide jail is employed by Sheriff Boothby in agricnltural operations. The olive department consists of an old and new plantation, the former containing five acres of trees very thickly planted, and the latter a 21-acre block of younger plants raised from seed and grafted. Mr. Boothby's system is to plant seedling stocks any time between June and August, and "cleft graft" the year after about one inch under the ground, with approved scions. The bark of the olive he has found too thin to succeed with grafting above ground. In this way has the old five-acre lot been treated, the seedliogs having been grafted with a variety named the Verdale, imported from Marseilles about 30 years since by the South Australian company. The Verdale is considered by Mr. Boothby the best sort, and a mark of its superiority is the largeness of the leaf and greyish white color on the under side.

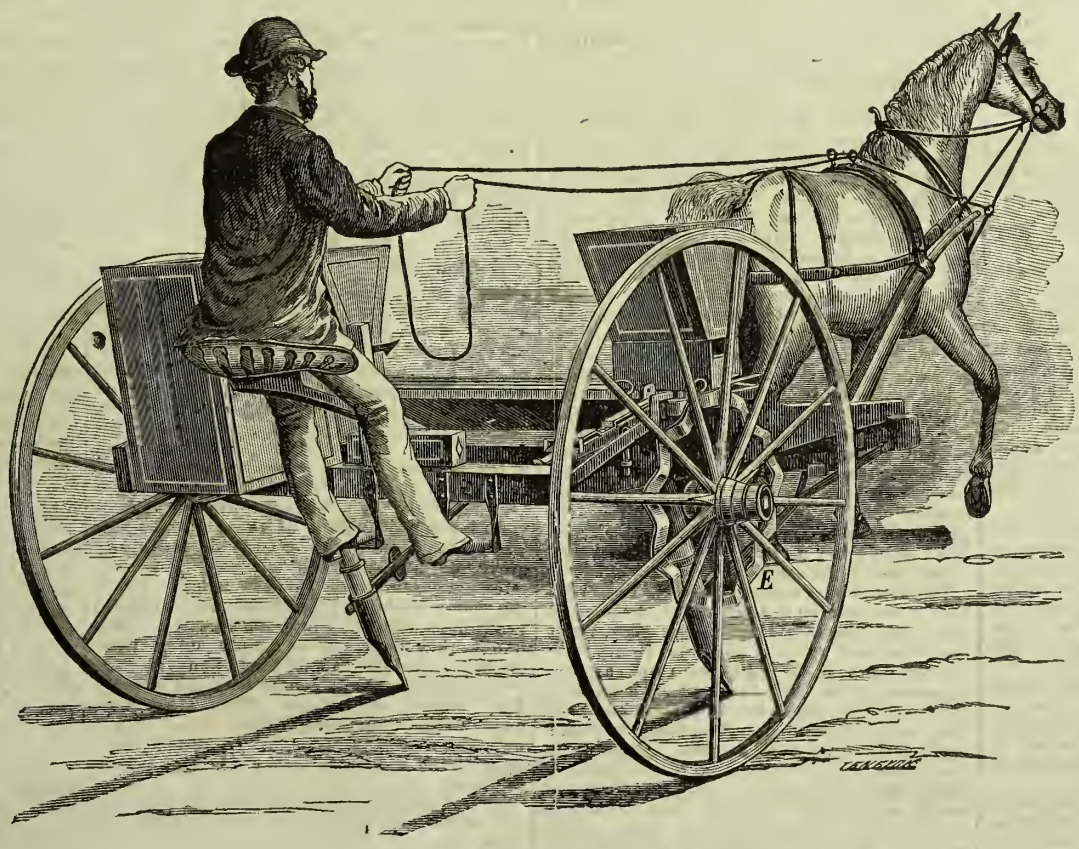
Still another method of propagating the olive is practiced by Mr. Wurm, near Adelaide. Instead of the seedling and grafting system, truncheons, about 16 inches long and from one to two inches thick, are cut direct from the branches of good sorts, and planted about six inches apart, and a third of their length in a loamy soil prepared with a good admixture of sand. The truncheons are set in rows about a foot apart, the soil between being hoed out concave for the reception of a good mulching of stable manure. In this way they are made to strike, being watered during the summer, and are transplanted in the following June. By this system Mr. Wurm claims to be able to produce trees beginning to bear within four years, and in full bearing at eight.

Mr. Wurm has a fine olive hedge. It is eight years old, composed of seedlings planted a foot apart in a spit deep trench. It is cut down to five feet high and is two feet wide, as square and solid as a wall. It is as impenetrable to stock as a thorn hedge, and has the advantage of being green all the year. Besides, a quantity of fruit is obtained from it.

Raisin Making.

In the growing of grapes in the colony there has been great success. The wines have suffered because of unskilled manufacture, hut are now greatly improved. In raisin making success has been attained. One of the growers, Mr. Hardy began about 12 years since, and after many failures and disappointments may be now said to be successful. The grapes for raisins are allowed to get thoroughly ripe, and are carefully gathered, all faulty berries being removed. They are then dipped in a boiling lye made from the ashes of the vine cuttings, and afterwards spread even and thin on paling five feet long and two and one-half feet wide, and exposed to the sun from eight to 20 davs, according to the weather. These trays are fitted with three-inch edgings, so that they may be rapidly put on top of each other without crushing the berries, and placed under cover in case of rain. The trays are then placed in kilns constructed with mud walls and roof in the form of huge ovens, and heated by means of sheet-iron flues underneath the floors, for 24 to 48 hours, to finish off. They are then passed into a room where the stalks are rubbed off, and when convenient, put into boxes for sale. The Snltana raisins dry in four to six days and the currants in three days. The dessert raisins are not dipped, bnt simply dried in the sun, and from the longer time required are more difficult to make in moist seasons. The dessert raisins are sold wholesale at eightpence per lb., the pndding raisins fivepence, and the Zante and other currants sixpence.

These are some of the interesting matters which are described in the publications which Mr. Davenport brings with him to this country. We trust his coming will be of advantage to his country and our own. We hope also that he may return this way and give the agriculture of onr State a thorough examination.



SEYMOUR'S COTTON PLANTER.

Seymour's Cotton Planter.

We print on this page this week an illustration of an improved cotton planter, invented by Pierpont Seymour, of East Bloomfield, Ontario county, New York. It is the result of many experiments in testing various devices for distributing cotton seed (and also fertilizers) by machinery. It is claimed that its action upon cotton seed, is such that it will distribute the seed so as to secure a continuous discharge from the hopper into the ground, in the same manner as a good grain drill will distribute wheat and oats. Should it be desirable to moisten the seed and mix it with fertilizers, it will in no wise hinder the operation. The machine may be made broad enough to plant three rows at a time, and yet not be too heavy for one horse, and when made to plant but two it is light work. It plants the rows three, three and a half or four feet apart, and may be so made as to plant them any desired distance. The teeth for planting cotton are easily removed, and as many cultivator teeth substituted as to fill the entire space between the teeth, thus converting the machine into a very desirable and efficient cultivator. These teeth are especially adapted to the machine, and attached to the "drag bars" in the same manner as the teeth for planting. They set in double rank to prevent clogging, and can he so gauged as to run shallow and just shave the top of the ground, or to penetrate to a depth of six inches. When deep cultivating is required, a pole is used for two horses, and by removing the two middle teeth, two horses may be used to cultivate young cotton or corn, by straddling the row; and when one horse is used for this purpose, the two outside teeth should be removed. Whether planting or cultivating, the whole is under the entire control of the driver as he sits in the seat.

The Grain Outlook.—There are various ways of judging a coming crop. A farmer of age and experience, who lately favored us with a call, informs us that the volunteer grain this year is especially good, and he has noticed that good volunteer means also good crop in general.

CORRESPONDENCE.

Botanical Excursions.

[Written for the PRESS by J. G. LEMMON.]

No. 1.—Pyramid Lake and Humboldt Desert.

"Dr. Gray advises me to solicit yon to collect specimens of the trees and shrubs of your region of country for exhibition at the Centennial. Can you undertake the work and do it well, according to specifications following. Also, will yon make a collection of the general flora for me?" writes Dr. Geo. Vasey, botanist of the Agricultural Department at Washington.

This request was received in my snow-covered retreat at Webber lake, April 8th, 1875. I replied at onoe, accepting the task, and the evening of the second day after found me 40 miles out on the great basin, gathering the early evanescent flora of that strange region.

But one can do little collecting aloue, so I led my curly pony, packed to his ears with plants, back to Sierra valley, and beset in his school-room my oompanion on so many excursions, Prof. E. L. Case, to accompany me out in the great basin to Pyramid lake—one of the reservoirs or residnal seas of this once vast ocean. Thinking of the heavy labor and fierce exposure it involved, the Professor at first hesitated, bnt by dint of glowing descriptions and strong promises, he kindly consented.

Stowing our little wagon with bedding, food, and great bales of botanical paper, we scampered down the long east side of Sierra valley, 35 miles to Beckwourth pass, through which wo emerged into the great Fremont basin, to toil for weeks through its sand, alkali and prickly hushes, revel in its curious and rare flora, gaze upon its grand yet gloomy scenery, and bring away—beside the characteristic products of the basin—a train of vivid, treasured memories of strange scenes and striking adventures in that wonderful sun-scorohed laud — a veritablo *tierra caliente!*

The Great Basin.

The great basin of America is the bed of the evaporated Mediterranean sea of the western continent. Sitnated on the same parallels as its Eastern prototype, bordered like that on all sides with high ranges of mountains, it differs from it in two particulars, which render the one a very salt sea and the other a very salty desert.

The Mediterranean sea fills a deep chasm in the earth's crust 2,000 to 6,000 feet deep; lying hetween 30 deg. and 46 deg. north lat., and almost constantly swept by the dry winds of the great Sahara, its waters are evaporated at an immense rate, which would, ages ago, have emptied its basin bnt for the other important fact, the Strait of Gibraltar, through which a strong ourrent ever comes from the ocean; and this, in addition to the mighty rivers which empty into the sea, and all to restore the equilibrinm distnrbed hy evaporation. To this evaporation—this lifting of a sea into the air—ie Europe indebted, mainly, for its exceeding fertility. The dry South wind is a sponge which takes np the waters of the Mediterranean and, condensed by the cold summits of the mountains of Europe, showers its waters over the plains. To this fact also is due the intense saltness of the Mediterranean, for salt is the residuum of evaporation.

The Mediterranean desert of America is elevated about 5,000 feet above the ocean, so its waters would naturally sink in the earth. Then there are no mighty rivers feeding it, much lese a Gibraltar strait, hringing in a flood from a neighboring ocean.

The towering rim of mountains on the West prevents the moist winds of the Pacific from entering the basin; the lofty Eastern rim bars out the Gulf winds; the lower North and South rims admit only the hot, dry, South winds of the Colorado to eweep over the basin, absorbing at their founts the few meager springs that rise in the mountain borders; so we have an immense frying pan or hake oven, as if scooped ont of the highest mountains of North America.

It is ohlong-elliptical in shape. Its western end rests upon the snow-clad Sierra, the eastern upon the lofty Wasatch range—a spnr of the Rocky mountains. On its smooth bottom are ranged, side by side, steep ranges of mountains rnnning north and south, like crosshars of a gridiron. The highest of these, the Humholdt range, divides the basin exactly in the center, and the ehort rivers running from the mountains on all sidee form sinks or salt lakes in each end, to which numerous systems of hot spiings add alkali, sulphur and other minerals, so that the sinks are generally extremely offensive.

The most important rivers of the eastern depression are Bear river, on the north, and Sevier on the sonth, each emptying respectively into Great Salt lake and Lske Sevier. The rivers of the west end are Humboldt and Susan on the noith, debouching respectively into Humboldt sink and Honey lake; and Walker, Carson and Truckee on the south, filling respectively Walker, Carson and Pyramid lakee —the latter of which wo propose to visit.

And now, dear RURAL readers, who went with us last year to Tahoe, the Big Trees, Yosemite and the silver mines, please

"Jnmp into the wagon and we'll all take a ride."

No fear of crowding the Professor. Only tell him plenty of stories and he will gladly walk. And you must allow me the privilege of walking too, to gather and study the plants by tho way. See here, before getting out of Sierra valley, what beautiful specimens of the four new *Astragali*, viz: *A. Lemmoni*, *A. Pulsiferæ*, *A. Webberi* and *A.* (nnnamed), each particnlarly abundant along the bottom and sides of Beckwourth pass, as if the seeds were sown here by the water current surging through here ages ago.

Flora of the Great Basin.

Emerging through this cleft in the high Sierra, and coming into full view of the shimmering bssin below, with the snow-tipped Humboldts in the distance, I will leave you to contemplate the scene, while I pick up this desert plum, *Prunus Andersoni*, this worm bush, *Sarcobatus vermiculatus*, the first of the desert plants met with on the down grade.

Here on the floor of the basin, radiant with beauty, grows the only plant Dr. Gray will allow named for him on the western continent, *Grayia polygalaoides*. It is a bnsh two to five feet high, densely crowded with spikes of flat circular pode, half as large as five cent coins and red as cherries; "neat but not gaudy," is the Doctor's apt description.

A large part of the flora of the basiu belougs to the order of *Chenapods*, or the goose-foot family, distinguished by their thick, hairy, succulent leaves, often shiny stems, and tho extreme loneliness of the entire order, with the exception of the *Grayia* mentioned. Tho order most nnmerous is the one everywhere most abundant, fonnd on every spot whero vascular plants may thrive, the immense order of *Composite*, or sun-flower. This order comprises about 10,000 species, and forms, according to Humboldt, one-uinth of all the flowering plants of the globe and one-half of its tropical flora.

Chief among this order in the basin is the renowned "sage brush," a name loosely applied to several kinds of plante having the same ashen hue, and found on the great arid plains from the forest-clothed slopes of the Sierra to the bottom lands of the Missouri.

Whatever the order or genus, all is modified to conform to the requisites of this hot region; thick leaves to hold the moisture when the sun ie high; copions, non-condncting hairs, to prevent exhalation; sharp, forhidding spines, to ward off enemies of the animal kingdom. Thie spinescent chsracter is most puzzling to the reflecting mind. What need of such protection in a region so desolate, so unfrequented? The rich open prairies and forests of other lands invite population. This arid, seemingly waterless basin is clothed, exeept where bleak alkali and salt deserts prevail, with dense, thorny, almost impassable sage brnsh, as if to guard a priceless treasnre. And Darwin eays it is so. He affirms that here are reservoirs of elements now unfit for nse, which the art of the coming man will turn into verdant forests or beautiful fields, as the needs of a teeming population will demand. Corroborative of this theory, most wonderful vegetable growths are now seen in the valley of the Jordan, tilled by the devoted Mormon, and in the valley of the Carson, verdant with alfalfa; hoth of these valleys immensely changed in value as the resnlt of irrigation skillfnlly applied aud on a large scale. But I must hurry up or you will leave me pondering here in the sand.

The first of the valleys between the crosshars of the gridiron is Long valley, threaded in winter and spring by Long Valley creek, rising near Reno and running north to Honey lake. Passing down it 25 miles we turn eastward through a cattle range enclosed hy a fonce of matted willows, climb the first ridge and Soda Lake valley is before us. The lake is a yellow pool of salt, alkali and sulphur. Crossing to the second ridge and climbing it, we look over into Winnemucca valley. On the pass at our foet is a beautiful *Scutellaria nana* (Gray), a new species. It maintains its green, robust look by means of reservoirs of plant food stored in its thick, necklace-like, suhterranean stems. The next is Warm Spring valley, quite large and important. Through it passes the road from Reno to Snrprise valley and Fort Bidwell. Passing around a sand monntain, gemmed with rare *Œnotheras*, we ascend an arm of Warm Spring valley, movo over a high pass and drop into a valley so walled in with sheltering ridges as to afford a surprisingly large and varied flora.

Every mile of our progress to this point has heen marked by decreasing verdnre and the appearanoe of the pecnliar ashen, dwarfed, desert plante. But here in this little valley all the speoies met with on the way are crowded, while hosts of strangers appear. In rapture, I named it for the veteran botanist,

Gray's Valley.

Here in this secluded garden of the great basin is the natural home of the saud and sunloving plants, too numerous to name—all puting on their gayest apparel and exhaling the richest perfumes, as if to prove the oft quoted lines:

> Full many a flower is born to blush unseen
> And waste its sweetness on the desert air.

Here flourishes *Tetradymia spinosa*, with strong, hooked prickles; the monstor *Thellipodium*, four to six feet high. Up on the hot sand bluffs stands, sentry-liko, the scrubby crucifer *Stanleya pinnatifida*, with spikes of yellow flowers 18 inchos long, terminating upright; white limbs four to six feet high. On the clean sand by our feet nestles the curious *Coldenia nuttallii*, the purplo *Conanthus arctioides*, the yellow *Emmeranthe glandulifera*, the snakehesd like *Anisocoma acaule*, and several species of the ever beantiful *Œnotheras;* but most striking of all uprears the rare *Abronia Crux-Maltæ* of Dr. Kellogg, holding at arm's length its large balls of pink flowers. Over the dry waterconrse, *Cleome lutea* peers; from the rocks on each hand hang *Pentstemons* and *Arenarias*, while the gorgeous *Eschscholtzia* shows its red eyes between the clefts, aud the immortal *Lewisia rediviva* on the gravel above aspires to notice by creeping to the edge of the precipice.

This plant is well named *rediviva*. Roots gathered nearly two years ago are growing still in their papers despite heavy pressure, illustrsting the power with which they are endowed to resist the severities of the basin climate. Deep rooted in the volcanic ashes of yonder bench glows *Opuntia pulchella*, the prettiest of tho *Cacti* family, and that odd little stiff-leaved, crimson *Oxytheca perfoliata*. Under the spiny bushes of *Bigelovia graveolens* carpeting the whole valley, are seen a few plants of *Pectocarrya penicillata* strayed away from the cosst, and *Blitum carinatum*, only fonnd before in Australia.

(The uninitiated reader will please pardon these hard words, for we are on a botanical excnrsion and this is Gray's valley. I have not afflicted you yet with *Cosmanthoides infundibuliformis*, nor *Platyschkuria integrifolia*, much less *Ghiesbreghtia grandiflora*, so give me credit for a little charity).

But we mnst not linger in this flowery vale. The dry water course along which our road passes grows wide and precipitons. Through the gorge ahead appear the dim peaks of the Humholdt. A great valley must be near, and our map tells us it contains one of the goals of our long journey—

Pyramid Lake.

From a high bluff on the west sido we come into full view of this vast, gloomy, awe-inspiring eea, low snnk in its long, sandy, volcanic hed. First, before even a sweeping glauce, taking in the whole grand scene, the eye rests enchanted upon a pair of objects directly in front. Tho heart trobs violeutly. You can scarce believe yonr eyes. You must be transported to Egypt, for there are the *Pyramids!* The nearest, square-sided and tme as if hewn with masonic skill, towers up 300 feet from the apparent center of the laehing wavos. The other completes the Egyptian picture hy preeenting a flat-topped area, which a nearer view reveals white with thousands of pelicans. It is these wonderful symmetrical monnments which give the lake its name. It could bear no other. Even the Piute name, *Pe-nock-thou*, refers to the pyramids.

Piule Reservalion.

Touching the south end of Pyramid lake is a small, green, pear-shaped mass of what appears to bo willows. A journey of 30 miles towards it would show a large forest of cottonwoods, carpeted with grass and flowers fostered to a rank growth by the sediment brought down from Tahoe lake and the valleys between by the Tmckee river, whioh pours its torrent ceaselessly into this engulfing, but never disgorging, sea. Thie rich bottom land—the delta of the Truckee—with a large region round, including the whole of Pyramid lake and its shore for a mile inland, is reserved hy the government for the occnpation of the Pinte nation. The agency buildings are built in the shady grove, and hnndreds of "wickenps" are scattered among the trees. Willow fences enclose the richest lands, and the Indian is instructed to till them, but Mr. Piute finds it too much like work. So he lives mainly upon tront caught in the lake, rahbits hunted in the sage brush and snpplies dispensed from the agency. The nnmber of Indians differs constantly, owing to their migrating habits, from only a hundred to often a thousand. Excessively fond of gambling and whisky, they are fast perishing away.

As we proceed along the bluff on the west side of the lake, going northward, more wonders appear.

The Sunken Cily.

From behind a jntting sand dune an assemblage of splintered rocks of similar formation to the pyramids rise abruptly from the sea, instantly snggesting a sunken city. A day's travel towarde them increase their size to that of immense fortifications, hattered and toin into all manner of shapes. You can count over 50 of those rocky islets standing there in the sea, so black, so splintered, so suggestive of human agencies, that yon rub your eyes and *think* in order to realize that yon are not in Italy. And this resemblance to hnman strnctures is hightened hy the entire absence of anything like them in all the enclosing mountains. They seem foreign to the couutry. The far Eastern shore, dimly seen across the dark sea, looks a hare, sandy plain, stretching away to nearly as hare and brown mountains that limit the view. Not an oasis, not a patoh of verdure save scant ribbons of salt-grass that do not deserve the name of meadowe, and the cottonwood at the reservation, appears in all the horizon. Can any scene on this continent be more drear? How different, how opposite this lake and ite ecenery compared with its mother—the matchless sea from which its waters come—the far-off, mountain-supported, forest-rimmed, cloud-curtained, sky-hued Tahoe!

Pyramid Conlrasted with Tahoe Lake.

No two objects in nature of the same name probsbly, can present so many contrasts as Tahoe and Pyramid lakes; the one pouring its pure, wholesome waters by the Tnckee river into the filthy sink of the other; the one elevated 6,420 feet above sea level into the cool cloud land, the other depressed 3,000 feet into the treeless plain, scorched hy the glaring sunlight; the one bordered by bright meadows and deuse evergreen forests, the other rimmed by alkali flats and bold reaches of sage brush; the one a source of unmeasured wealth to the cities of Nevada through its forest and meadow products, the other utterly worthless, a horrid incubus resting upon the fair face of the State; the one attracting to its shores on all sides thriving villages occupied by cultivated and happy people, the other presenting a smooth shore-line of 120 miles, broken by only one little grove of cottonwoods, the wretched shelter of a small band of savage, vanishing Piutes; the one flecked with the white sails of the pleasure boat and striped with the hrosd trail of the passenger steamer, the other nnrelieved through all its expanse save only a few Indian canoes and thonsands of homely pelicans riding its turbid waves; the one the far sought resort annnally of hundreds of invalids whom but its miraculous climate can restore, the other only visited per force, by the ranchman who must enter this malarious valley in search of roving stock; the one inspiring with the grandest thoughts by its sublime scenery, the other depressing almoet to nausea by the monotony of its surroundings; the one raising the soul up to a conception of the might, perfection and benevolence of the Creator, the other tempting the reason to distrust the wisdom of a Being who could have need of any such odious thing in his process of world-making; the one a glimpse of Paradise, the other a vision of Hades; the one a jewel, the other its dross; the one light, the other gloom; —life—death!

[To be Continued.]

Practical Themes.

EDITORS PRESS:—Madame de Stael, in "Corinne," divides mankind into two classes, the ardent and the apathetic. I believe those who know me best would place me among the former. Anyway, after perusing in your columns some interesting account of fabulous yields of beef and butter from fancy stock, or after glancing down the advertisemente of new seeds and handsome trees and shrubs, my ardor impels me to write at once for indefinite qnantities of all these desirable things.

Fortunately, however, for my family, after a vast expenditure of time, thought and cash, I have succeeded in applying to my running gear a brake of experience, usually strong enough to put a deadlook on the wheels of ardor. The deterring experience in the present case is that bills are long and cash is fleeting. Other deterring experiences cannot be so enrtly stated, bnt I want, through your columns, to increase my brake power and to distribnte some to your readers as well, on Solomon's principle, "There is that scattereth and yet increaseth."

Jersey vs. Centennial Cows.

My ardor has long hankered after some Jersey cattle. Their great suitability to the small farmer, their docile temper, that deer-like heanty of head, but above all, let me confess the trnth, their yield of 14 pounds of butter per week, has rendered them objects of my first regard, speaking, of course, professionally. Now, I want Mr. Maillaird, of San Rafael, who advertises in yonr columns, to come to the fore and tell us if all these things be true, especially the 14 ponnds of butter a week. I don't want to hear whether he has one cow that will make that, hut will his herd average that, and for how long; also, what is their yield per annum and how are they fed to make thom give that 14 pounds? Then, what is his price, heifers and bulls?

The experience I give your readers is of four ordinary American cows that I am milking now, who evidently are doing their hest to do credit to their country's Centennial anniversary. In addition to a very fair allowance of milk for household use, those four cows make 52 ponnds of hutter in a week. It is only fair to say that the hutter is weighed after the first working, and, of course, losee a certain percentage of weight (hiine) in second working. They are cows in their prime (six or eeven years old), and receive about 60 pounds of pumpkin in a day, besides a little hay, and grass *ad lib;* occasionally a little salt. Will Mr. Maillard's Jerseys "go one better" than my "Centennials?"

Green Crops as Manure.

If it at all interests "Young Farmer," I here record that I have to-day been plowing in a very fair crop of native clovers and weeds as manure. The continuons rains have favored growth to an unnsnal extent this season, and I have for some time heen regarding with complacence the growth of a heavy volunteer orop of clover, in the field I nsually crop with mangele, as equivalent to a heavy dressing of manure. It is a difficnlt matter to reply to questious as to the possibility of cropping land in different parts of the State. Climate is so diversified, that what is possible in a region like this, of mountain dews and sea fogs, would be impracticable in a hot, dry inland county. But nowhore in the State, except on land naturally

permsnently moist or irrigable, could a crop of snrface-rooting clover be sown with wheat and make a growth after harvest. "Yonng Farmer" might sow clover or, more profitably, barley, at the rate of 120 pounds per acre, with the first rains in a good season, and have a growth of 18 inches (if barley) to turn under by the first of March, in plenty of time for corn or pumpkins. But he need have no fear of injuring his land by any manure he can apply in a proper condition. This talk of manure not sniting California land is all nonsense; what it does not suit is California laziness.

If mannre won't rot in the gronnd, why, rot it before you pnt it in. I use all the manure I can get hold of, and have yet to discover its prejudicial effect. The privy manure I render inoffensive by the use of the ashes from the house, after the fashion of Moule's dry earth system; the result is a fertilizer that, I should think, would in a dry state be as powerful, pound for pound, as gnano. Moreover, all noxious vapors are neutralized and the premises are sweet and wholesome.

Rotation of Crops.

Five years since I wrote an article for the *Bulletin* on this snbject, and I there recommended the occasional raising a crop of pumpkins, as being almost equally beneficial to the land as a "spring fallow." If fed off in the field where they have grown, they would then be far ahead of the spring fallow. My own farm is small, and I have not yet got it thoroughly in hand, bnt I aim to raise hay one year, and perhaps volunteer, either for pasturage or hay, the following year, and then take a crop of pumpkins, or "squashes" is the more correct designation, I believe. I feed my crops either to dairy cows, hogs or beef cattle; my aim being to let hydro-carbons (fats) be my articles of sale as far as possible, these being derived by crops from the air, and not drawing the goodness of the soil. I prefer fatting beeves, but the market is very uncertain, and at best none too remunerative, although the finest beast of a car load I sold in San Francisco in January, 1875, bronght $76. It has to be something very choice and fat to bring anything near this. Mr. Lux told me the beef he was selling last Christmas at 13 cents per pound hardly paid him, as he had been feeding 25 pounds of barley meal daily to each beast for four months, besides hay.

Poultry Points.

More experience I want from Mr. Eyre, of Napa. I want to know whether he finds Brown Leghorns or Black Spanish hens the better layers. Some one wrote you of a yield of 480 eggs in a month from 100 hens. My wife's score for February gives 445 eggs from 60 hens, mostly half breed Black Spanish. I find the Black Spanish far ahead of Light Brahmas, although the latter are a heavier, handsomer fowl; but the roosters seem to get very leggy. I have two fine Black Spanish roosters from eggs sent me by Mr. G. A. Hill, of San Francisco, and one Black Spanish hen, thoroughbred, and that hen, for size and number of eggs, beats anything I ever came across. One rooster particularly is snperbly handsome, (That's speaking professionally, again, Messrs. Editors, really, at close quarters, he's atrociously ugly,) his entire face is one huge white wattle, and his white ear lobes are enormous, his eyes just manage to find a hole to peep throngh in his white cheeks. Mr. Hill sent me a large number of eggs on shares, bnt on each occasion an infectious disease, roup, I believe, attacked almost all the chickens and nearly the entire lot were destroyed. But for the three birds above enumerated, and a Silver Spangled hen, I owe Mr. Hill many thanks, as he generously declined to divide the small remnant, some dozen or so from two lots.

Will Mr. Eyre tell us why the Black Spanish are out of fashion at present? Is it mere caprice, or are they snpposed to have any radical defect?

Farmers' Wives.

I am glad to see again some very sensible talk in the RURAL on the above subject. I don't care much for the collar and back hair part of it, but any suggestions that may alleviate that frequently ill-appreciated overwork, which brings too many to an early grave, are worthy of the most conspicuous place in yonr columns. My suggestion is, no more big ranches. Let's have small farms and homes on them, let home be tho first consideration of every man with a family. Where on earth does a man expect to find happiness if not in making himself a home, not only a snug abode and surronndings, but a warm place in the loving heart of his wife and children? What comfort will money bring to a man whose wife is dying from overwork, and whose children have grown np to be curses instead of blessings, from sheer neglect? Hoodlums! who wonders there are hoodlums, when mothers are worked like horses, and fathers look for nothing but dollars? Acquisitiveness is but a brute virtne(?) that man shares with ape and tiger. Ardor, no doubt, would have a "big ranch and do a big business," but experience can point to many big ranches and big businesses that are rnn for the benefit of the laborers and result not unfrequently in big losses. I could name one on which cheese was made at a cost of a dollar per pound. If Ardor will have a big ranch, then let Ardor do his wife's work for a week or two when those 20 hired hands have to be cooked for. Sometimes, Messrs. Editors, you give us a tale in your "Home Circle." Let me request, on behalf of the overworked wives of California, that yon give us, as soon as may be, a reprint of "A Night at Wingdsm," by the Dickens of California, Bret Harte. There are yet in the State too many ill-appreciated Parthenias and barbarian Ingomars.

I am glad to see a little discussion in the columns—Chillson and Gillet. The improvement made by nations was slow until the "sge of discussion" arrived; so says Bagehot in "Physics and Politics." EDW. BERWICK.

Monterey, Cal., Feb. 20th.

The Evil of Dry Sowing.

EDITORS PRESS:—I notice a communication in yonr issue of the 19th inst., by Eugene W. Hilgard, dated at the University and entitled "Summer Fallowing," wherein he advocates the system of "plowing as soon as the crop is off the ground and dry sowing the grain shortly before rains set in." I hesitate to disturb the comfortable theory of Professor Hilgard, whose interesting lectures we have been reading in the RURAL, but *experience* has tanght me the error of "dry work." One of the greatest obstacles the wheat grower has to contend against in these interior valleys, where the average rainfall does not exceed 15 or 16 inches, is the luxnriant and persistent natural growth of alfilarea, fox tail and other weeds; a stalk of either requires as much moisture as a stool of wheat. Water is our capital. We are obliged to farm so as to make the most of our limited snpply. If we allow a weed to rob us we suffer in the same ratio in the loss of onr crop. "Dry plowing" is the happiest system of propagating weeds and alfilarea yet discovered.

The Result of Dry Plowing.

A piece of land worked for two years in the manner indicated by Professor Hilgard would produce nothing but feed in the third. There is a very considerable loss in scattered grain during harvest, and it is seldom equally distribnted over the land—it will be thicker in some places than in others. Where too thin we must sow in what in our judgment will be sufficient. "Dry plowing" turns it all under together—wheat, weed-seed and all. When the rains come on we are not surprised to find the grain a mat in some places, too thin in others and weeds everywhere. If the rsin proves abnndant and continues late into the spring we may get a crop; but it is the exception rather than the rule. The moisture is not sufficient to sustain such a burden of vegetation, and the result is it dries up and the crop is cut short to one-quarter or one-half what the season would justify had we cleaned the land properly and by light seeding allowed only as much to grow as the average season would warrant. This is what I call farming for the exception rather than the rule, and is not justified by either good judgment or common business sagacity. It engenders a species of gambling. "Rent a large lot of land, put it in dry and take the chances," is what ruins many a farmer. He bets against heavy odds, and in seven cases out of ten he comes ont worsted. What he says of winter farming, putting grain in wet, cold ground, etc., is true; but it pays better in the long run to do this than to fallow up volunteer or dry work. It is the common practice with farmers in this vicinity to put land in dry, when it has been plowed late in the spring, after the vegetation had all started; then it will be partially freed from weeds, and, if we can catch it just right, by running a harrow over it can tear out much of the foul growth remaining; if not, a second plowing is indispensable.

Summer fallowing is the only true system of wheat raising, and where the land is foul it should be plowed twice. The theory is to keep the land clean; allow nothing to grow npon it but the grain. Few realize the fact that it costs quite as much to raise a weed as a stool of wheat, and more overestimate the supply of moisture, even in summer fallow, and seed their land too heavily. Most of the summer fallow in this vicinity was ruined last season by this means and did not produce in some instances as much as the winter sown. It has been my practice to sow 40 pounds of white Chile wheat to the acre. Last season I reduced it to 36 pounds and took 900 large sacks of wheat from 135 acres (14¼ bushels per acre,) on a rainfall of 10½ inches. It was winter sown, but the land was plowed early and was clean.

Deep Plowing.

A word in regard to deep plowing and I am done. Deep plowing produces for me a heavy burden of straw, with short heads snd shrunken grain. Plowing three inches deep and thoroughly pulverizing the surface produces less straw and more grain. On the adobe hills of San Ramon they use a cultivator almost exclusively, simply scratching the surface, and they boast that "they never lose a crop." I should be pleased to see the Professor through this section of the county just before harvest, when he can note the difference between the yield on summer fallow, winter plowed and dry plowed lands. * * * *

Antioch, February 20th, 1876.

TO DETERMINE THE SIZE OF GAS PIPE NEEDED.—Following is the London rule for gas pipe sizes: For 200 lights, two inch iron tube; 120 lights, one and one-half inch; 70 lights, one and one-fourth inch; 50 lights, one inch; 25 lights, three-fourth inch; 12 lights, one-half inch; 6 lights, three-eighth inch, 2 lights, one-fourth inch.

ARBORICULTURE.

The Pyracanth as a Hedge Plant.

There has arisen of late in agricultural circles considerable inquiry concerning the pyracanth as a hedge plant. John Duncan, of Lonisville, Kentucky, furnishes the following information:

The pyracanth is a native of Europe, and we may add further that it is a near relative of the hawthorn, the two belonging to the same botanical genius, namely, *Cratargus*, the one, the hawthorn, being *C. Oxyœantha*; the other, in which we are more immediately interested, *C. Pyracantha*.

The pyracanth, or, to use a prettier name by which it is known, evergreen thorn, under favorable circumstances and when planted singly becomes a small tree which, when in bloom and covered with its white blossoms, is striking and ornamental. Planted closely, when it is meant to become a hedge, it undergoes a process of stunting and dwarfing, which are steps in the direction of the end sought. Pyracanth can be propagated in three ways—by seed, which is nature's way; by layers or cuttings, which are artificial methods. The plan of increase by "layering" is seldom resorted to; propagation by seed is very well when seed can be obtained in sufficient abundance, but the usual way of increasing the pyracanth among our nurserymen is by slips or cuttings. But it is not important to go into minute details on the methods of propagating pyracanth. Nearly all those who contemplate planting should find some nurseryman from whom they can obtain supplies when they are ready to go to work.

How to Grow a Hedge.

And now about the preparation of the ground. This can be put in proper condition either by the plow or spade, and the setting out, to be done neatly and in the best manner, should have the benefit of the latter implement. No farmer or gardener requires to be told how to prepare ground for any crop, and therefore I would only remark that nowhere more than here will what is known as "scratching the surface" result disastrously. The setting out should be performed neatly in straight lines and in the spring, and the cultivation for the first and second seasons should resemble that given to any important crop, and on no account ought the weeds be allowed to become masters of the situation. Any vacancies made by deaths should be supplied in the spring following and a moderate heading back given at the close of the second year. From this forward careful trimming will be required every season at both sides and top, and it should be conducted in a manner which will cause the hedge always to be broadest below, tapering gradually upward until the apex is reached. If this is neglected the base will become bare and the hedge, comparatively speaking, a failure.

And thus in a few years the farmer can have a live fence, which, with proper care, will last for a lifetime, in addition to forming both a shelter and a protection. Now, we would not recommend that any one should at the outset attempt on an extensive scale the formation of hedges. Such an undertaking should be engaged in gradually but resolutely, and if it is we are confident that the result will be satisfactory. If you have a garden, hedge it round about, and that will be an experimental ground from which you can obtain valuable ideas for your future guidance.

The Pecan as a Timber Tree.

L. Harbison writes to the *Prairie Farmer* concerning the value of the pecan tree for timber. He gives his experience as follows:

The cottonwood was hardy and of rapid growth, but worthless as a timber tree, and very inferior as fuel. The locust would sprout from the root so as to become a nuisance, and the borers ruined the groves. The gray willow did not realize the anticipations formed of it, even as a fencing material. The soft maple was valuable for wind-breaks and for fuel, but was not a timber tree. At this point I thought of the pecan (*Carya oliviformis*) a species of hickory, a native of the Illinois and Mississippi valleys. I satisfied myself, by experiment and investigation, of its value as a timber tree, wagon and carriage makers, wherever they had used it, testifying of its value as being equal to the best of white ash, for all purposes of buggy or carriage manufacture, possessing equal durability, and greater strength and elasticity. At various points on the Mississippi river, steamboat carpenters who had used it, found it valuable timber in boat building. As a fuel it has no superior. But would it grow and thrive on onr prairies?

To test this, in the fall of 1871 I dug up in the bottom land, along the Illinois river, a dozen or two young trees, heeled them in my garden for the winter, and in the spring removed them to my farm on the prairie. The summer of 1872 was hot and dry, but all the trees grew and did finely. Next year I increased my planting, and thus far have three different settings of trees. I find it as easily transplanted as any tree I ever handled, having never lost a tree; of vigorous growth, clean and healthy. By my advice several of my friends have procured and planted this tree, and I have 500 more which I intend to plant the coming spring. The pecan tree ordinarily commences bearing about eight years of age. It bears one of our finest nuts, which sold in Cincinnati market, for the past six years, at an average price of five dollars per bnshel. A gentleman in the southern part of the state, who has a pecan orchard, partly natural, which he has increased by further planting, says "it is of more value to him yearly than his apple orchard." The pecan tree is grown readily from the nut, if it is not allowed to become dry before planting.

THE DAIRY.

A Dairymen's Association.

We are familiar with the means by which the dairy interest in the Eastern States has advanced step by step from its small beginnings to its present magnitude. The first and foremost has been the dairymen's association. There are associations in the different dairy States and one general association which draws its membership from all the States. These associations have their annual meetings, continuing their sessions through two or three days, and at these meetings every question which is related to the practice of dairy husbandry, from the breeding of dairy stock through all the details of cheese and butter manufacture to the question of best methods of marketing—all these varied matters are discussed by the dairymen themselves and by students of the science which is involved in their operations, whom they invite to address them. The result has been a wonderful improvement of dairy stock by judicious breeding, a marked improvement in the quality of the manufactured product, both of cheese and butter, and the openings of new foreign markets which consume annually 2,000,000 boxes, or 120,000,000 pounds, of the item of cheese alone. Twenty years ago the export of American cheese in large quantities was not known.

How This was Attained.

As we have said before, the main avenue of progress was opened by the dairymen's associations. Meetings were called, dairymen met and organized themselves for mutual improvement and the advancement of their business. Every man reported his own success or failnre, and what he conceived to be the reasons for it. An experienced man was sent to England to discover what methods were employed to make a cheese suitable for the English market. It was practical work and talk which prevailed in the meetings. The men from the dairy farms, the vats and the churns, met and compared their practices point by point. A man's success was made the proof of the value of his talking, and when a method of operation was thus approved in the experience of one it was laid open so that all could test and profit by it. It is fairly wonderful to one who is familiar with the history of American dairying to look back over the last score of years and behold how the Eastern dairymen have improved their practice and extended their operation by organizing and working together toward that end.

Can Our Dairymen do Likewise?

There can be no doubt that the dairy industry on this cosst now needs just such a stimulating and improving agency as worked such good results in New York, Vermont, Ohio, Illinois and other Eastern States. We are working under conditions which in many respects are altogether new to dairy science. We cannot employ Eastern methods either in the care and feed of stock nor in the manufacture of the product. We have to build up our own methods and practices. It is difficult to see how this can be done unless we associate and make a common fund of the experience we have already gained, and push forward all together to enrich ourselves with new experience. All questions should be considered and discussed until each one has had opportunity to throw whatever light he possesses upon it. We are making some of the very best and some of the very poorest butter in the world in this State. We are making some very good and some very poor cheese. Let us compare experience and discover whence comes the difference. The result of a comparison of experience would plainly show what are essential to success in dairying in this State, and what practices result in failures.

Advantages to be Gained.

Let us enumerate a few of the points which could be gained by association and discussion among our dairymen. We could determine:

First. What the actual condition of dairying is in this State. There is now no complete information of this kind.

Second. What parts of the State are fitted for dairy husbandry.

Third. What are the best methods of dairy practice, both in the feed and care of stock and methods of manufacture of cheese and butter, under the different conditions of soil and climate which exist in different parts of the coast.

Fourth. The chances of success which invite investment in dairying, so that the dairy regions of the State can be properly brought to

(Continued on Page 154.)

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

The Grange Work and its Critics.

Bro. J. W. A. Wright has written and published a calm and dignified response to the numerous unfavorable criticisms which have appeared, in various publications, on the doings of the late National Grange and on the work of the Order, generally, in the various States of the Union. Many of these criticisms have been promulgated by papers friendly to the Order, and not unfrequently by journals whose managers are members. Referring more particularly to the latter, Bro. Wright, says:

These criticisms, uttered, we are satisfied, in most instances without sufficient knowledge of the facts in the case, necessarily tend to impede rather than further the progress of our Order. At the same time, we happen to know that some of these adverse critics, whether editors or correspondents, have been admitted to our fellowship, have, like all Patrons of Husbandry, taken upon themselves obligations as sacred and binding as are administered in any secret associations or any court of justice—obligations to aid and not to injure their fellow Patrons or our cause. How can they reconcile these reckless, ill-advised, unjust and injurious criticisms with their obligations as members of our fraternity, is a problem we have not yet succeeded in solving, except upon a supposition which we would much rather not be forced to make.

The tendency of most of the principles advocated by these critics, whatever their motives may be, is clearly

To Tear Down

Rather than to build up the great and good work already done by those who, in the past, have labored untiringly and successfully, with an eye single to the good of our Order, and the true and permanent advancement of agriculture through the influence of the Grange.

Some of these critics assume that they are the champions of reform in our Grange work. Why not let well enough alone? Why not let an Order which by adherence to its first principles, has already done so grand a work, still continue its prosperous career through the same means and ways? Why not let the complete machine we have go on and do the work for which it has been most carefully constructed, instead of forever trying to tinker at, and trying to change and ruin it? Fellow Patrons, watch all such unfriendly critics and their false ideas of reform in the Grange, as among your

Most Subtle and Dangerous Foes.

The sooner they and their disorganizing schemes can be winnowed from the Order, the better. The great mass of our true and tried members who as sentinels guard the interests of this grand brotherhood, understand its principles and welfare thoroughly enough to free it from any real coils, when they show themselves, and to guide its course without the aid of these self-constituted advisers.

Now, what are some of these criticisms? Some political journals of considerable prominence, favorite family papers, which have done the farmers' cause good service, censure the National Grange because it did not so commit the Order on certain political questions as to array its members on the side of the one or the other of our great parties, that

Its Political Influence

Might be felt. How preposterous this suggestion; how odd, coming from those who have had good opportunities to know better; how fatal would it be to the Grange, when we consider the wonderfully mixed character of its membership with reference to our political parties. Those best posted on our organization know that such a course would sap its very foundations, and soon breed death to its future prospects. Such advice only shows how hard it is for politicians to understand our Order, or how gladly they would use it for party schemes, if in their power. Its quiet political influence has already been vast and good, and so it will continue to be—but politicians cannot pull the wires.

Some make the sweeping censure that [at the meeting of the National Grange]

More was Left Undone

Than was done. To those who listened attentively to the many varied, able and instructive discussions, as well as to the debates—less interesting, perhaps, but all having their value—it will be admitted that nearly every question of paramount or minor importance which had been agitated during the year among our numerous Granges, came up at some time during the session, received its due share of attention, and was in general definitely acted upon. When we consider the numerous wants and interests of our large membership, this involved a great deal of business. Yet by a proper division of labor by efficient committees, nearly every matter sent up by State, County or Subordinate Granges, or even individual members, received a satisfactory amount of attention. But, oh! says one, the National Grange inaugurated

No Grange Business Agency

For the whole Union, and many State business agents were there, hoping for something of the sort. Be not too hasty to condemn. Was not the National Grange prudent to act on the principle that solid foundation must be laid before a safe superstructure can be built? It was this thought that guided their action. Let the States perfect their business agencies, then co-operation between them can easily effect the general business advantages sought. How can we expect to do everything at once?

The sound plan for co-operative associations, based on the Rochdale system of England, so modified as to meet the wants of American farmers, which was prepared and recommended by the Executive Committee, and unanimously adopted by the National Grange, will no doubt within a few years produce such safe and uniform co-operative enterprises throughout our States and England as will eventually establish

Inter-State and Even International Co-operation.

To this result the National Grange and its action are looking, but it wishes to hasten slowly.

When, in the near future, the fruits of its labors shall be more fully realized, our worthy members everywhere will understand more clearly even than they do now, that the National Grange, with the great work it has done, is doing, and will yet do, is not an expensive, useless luxury, but a national blessing to American agriculture.

Potato Growing Discussed by Centerville Grange.

Editors Press:—It is a well known fact that the larger part of the farms of this State are what is termed "grain land," and their owners seldom attempt to raise potatoes upon them, even for their own use. This fact suggested the following question, which was discussed by the members of the Centerville Grange at their last meeting in January: "Can potatoes be raised to advantage upon the grain lands of this State, in quantity enough at least for their owners' use?"

The following is a synopsis of the remarks of one of the members upon the question. He said:

Having had a long experience in the cultivation of potatoes in California, it seems but natural that you should expect me to say something upon this question now before the Grange. I cheerfully do so, and my experience justifies me in saying that three-fourths of all the grain farmers of this State can produce potatoes enough upon their own farms for their own use for the greater portion of the year, and that the potatoes will be of better quality than those usually found for sale in the markets of this State. But in order to point out how it can be done, I will call your attention to these specimen potatoes. (Here the speaker exhibited several potatoes.)

The white ones are the genuine Early Goodrich, which I dug from the ground this morning. They have grown since the rains commenced last fall. The light rose colored ones are the Early Rose. Both are a superior table potato to the red kind, with which the markets of this State are mostly supplied.

These potatoes can be grown upon all the grain lands of this State, excepting strong adobe or stiff clay soils, and will ripen good sized tubers in localities where late varieties will produce vines only. I have profitably cultivated these potatoes on grain lands in this valley where the late varieties always failed. I have also produced them in the dry windy regions on the west side of the lower Joaquin valley, and only once failed of obtaining a crop, and that was when they were destroyed by a bug.

How to Do It.

If I had to prescribe a way for every farmer of this State to raise his own table potatoes, I should direct them to select a piece of land best adapted to the growth of the potato, and enrich it with suitable manures. Potatoes are best in quality when raised upon new lands, or land not planted with potatoes the previous year.

As soon as the land is sufficiently wet in the early part of winter, I should direct it to be thoroughly and deeply plowed. If subsoiled at the time, so much the better. Smooth it down with the harrow or sled, and so let it remain until about the first of March. Then cross plow five or six inches deep, and smooth down as before. Then plant, at your earliest convenience, the Early Goodrich or the Early Rose, or some other variety; planting the rows two feet apart, and dropping the seed 18 inches apart in the rows.

With proper after culture, which all farmers understand, our word for it you will have potatoes of fair size and good quality independent of merchants or farmers with more favored lands. When they are fully matured and liable to be injured by worms or other causes if left in the ground, they should be dug and stored in bulk, and covered with hay or straw to the depth of six inches. This will keep them fresh during the summer, effectually protecting them from the sun and air, which soon destroys their fine eating qualities if left exposed.

Potatoes should never be covered with their own vines in the warm season of the year, as they form an imperfect covering at best, and worms that hatch from the eggs deposited upon the vine before digging immediately burrow in the potatoes. I have had potatoes in heaps much injured by the worms when covered only with their vines.

Some other ideas were also advanced and questions asked and answered in relation to the same subject, but time and space will not permit further elaboration. John M. Horner.

Washington Corners, Alameda Co., Feb. 28th.

From the Granges.

Elk Grove Grange.

Editors Press:—An informality in the election of officers for Elk Grove Grange, which was only lately corrected, is the reason for my long delay in sending you the list.

Worthy Master J. V. Webster, of the State Grange, who installed our officers, delivered an address to the Grange, which inspired all who heard it with renewed confidence in and courage to stand by the Grange organization. We were in need of just such aid and information as Worthy Master Webster gave us, and will long hold him in kindly and grateful remembrance for it. Delos Gage, Sec'y.

Elk Grove, Sacramento Co. Cal., Feb. 28th.

Pacheco Grange.

Editors Press:—I had the pleasure of installing the officers of the new Pacheco Grange on Saturday last, all of the officers and all but a few of the members being present, and seemed to enter into the spirit of our glorious and righteous cause, and I have no doubt will very soon be found in the front ranks battling for the true principles of the P. of H. And I can testify of a truth that the good sisters of Pacheco know how to get up the cake and chicken fixens, and that the brothers need no instructions as to the best or most expeditious method of disposing of the same.

We have had about one week growing weather, for which we are very thankful. The season thus far has been very unfavorable for this part of the country. There will be a falling off of at least 10 per cent. on the amount of grain sown last year. N. Jones.

Lafayette, Cal., Feb. 22d.

Riverside Grange.

Editors Press:—Our Grange is waking up to the importance of its mission. At no time has there been so much apparent interest as at present. Five applications were received on Saturday, and several others are about ready to join us. We hope to increase our roll to 100 before the year closes; and we also expect to increase your subscription list materially. I shall hand our Secretary my name for one at our next meeting. Eli Brown.

Riverside, Cal., Feb. 21st.

American River Grange.

W. W. Kilgore, Sec'y, writes: "Our Grange is still in a prosperous condition. We have a class of 10 to instruct in the first degree at our next meeting, and have several more applications to act upon."

Laurel Grange.

W. D. White writes as follows: "The officers of Laurel Grange, Boonville, Mendocino county, were installed by me last Saturday; N. V. Ingram, Master and F. M. Hunt, Secretary."

Prices of Wheat.

Editors Press:—A discussion having arisen in Ceres Grange, No. 64, P. of H., with reference to the current prices of wheat during the past five years on this coast and in Liverpool, I have decided to write to you for information. Could you send me a statistical report of the prices of wheat during the past five, or even ten years? If you prefer, you might publish it in the Press, or you can send it to me. By so doing you will confer a special favor on M. B. Kittrell.

Modesto, Stanislaus Co., Feb. 6th.

We print elsewhere this week, in answer to this request, a full table giving the monthly range of prices for wheat in this market since 1864. We think a better foundation for a Grange or farmer's library could not be laid than in the files of the Press. Then statistical points could be easily decided by a reference to them.

Grange Directory.

We intend to print in the next issue of the Press our "Grange Directory." The tables have been carefully revised since the last printing, and all corrections made which we have been advised were necessary. If any errors still remain, it is because the secretaries have neglected to give us the information. The publication occasions us much labor, and we desire to have it correct and trustworthy.

Worthy Master's Decision.

We have been shown a recent decision by the Worthy Master of the State Grange, Mr. Webster, in which he decides that when a brother or sister applies for membership in a Subordinate Grange by dimit card and is rejected, the dimit card should be returned to the applicant. A dimit card becomes void at the expiration of six months of its date. There is no provision for extending it, and a holder of a dimit who does not apply for membership within the six months, severs his connection with the Order, and must be treated as a new applicant. Withdrawal cards are not granted to enable members to join other Granges. They sever the connection with the Order.

Mt. Whitney Grange.

At a meeting of Mt. Whitney Grange, Tulare county, February 19th, 1876, the following was unanimously adopted:

Whereas, There is a petition in circulation asking the Legislature of California to appropriate the sum of $1,500 per month to maintain the Emigrant Bureau of San Francisco, of which Josiah Earl is manager; and

Whereas, We are bitterly opposed to granting public aid for any such purpose, and believing the Bureau to be well paid for the service rendered, therefore be it

Resolved, That we do most earnestly protest against said appropriation.

Resolved, That a copy of these resolutions be entered on the minutes of this Grange, and a copy, under seal, be furnished the Rural Press for publication, and one sent to Senator Lindsey, at Sacramento.

G. W. Duncan, Sec'y.

Grangers' Business Association.

The Grangers' Business Association has during the week effected its removal from the old stand on Market street to the new location in the Grangers' building, corner California and Davis streets. The business Association has rooms on the Davis street front. The facilities for trade are now complete in the new store, and our Granger friends can have business of all kinds transacted. We are promised the official statement of the manager of the association for printing hereafter.

Election of Officers.

American River Grange, Patterson, Cal.—Election, Dec. 11th, 1875: E. G. Morton, Sr., M.; D. W. Taylor, O.; E. G. Morton, Jr., L.; Newel Kane, S.; Carl Halverson, A. S.; J. W. More, C; Solomon Calglesser, T.; Wm. W. Kilgore, Sec'y; Anton Otterbeck, G. K.; Mrs. A. E. White, Ceres; Miss A. E. Morton, Pomona; Miss Alice Criswell, Flora; Virginia More, L. A. S.; Claus M. Boye, Trustee for three years.

Bear Valley Grange, No. 238, Bear Valley, San Diego Co.—W. H. H. Dinwiddie, M.; M. Price, O.; J. Cook, L.; George Hedden, S.; C. H. Moseley, A. S.; Joel Hedden, C.; Samuel Striplin, T.; A. M. Striplin, Sec'y; C. B. Dinwiddie, G. K.; Mrs. Ann Price, Ceres; Miss Hannah Shelby, Pomona; Mrs. S. Dinwiddie, Flora; Mrs. H. Dinwiddie, L. A. S.

Elk Grove Grange, No. 86, Elk Grove, Sacramento County.—Thomas McConnell, M.; G. H. Kerr, O.; Dr. G. R. Kelly, L.; Mrs. A. R. Gage, C.; E. Drew, S.; G. T. Carr, A. S.; A. H. Simons, T.; Delos Gage, Sec'y; H. S. Anderson, G. K.; Mrs. C. M. Treat, Ceres; Mrs. M. E. Beans, Pomona; Mrs. L. C. McConnell, Flora; Mrs. Mary Kerr, L. A. S.; G. T. Carr, Trustee.

New River Grange, No. 42, Corvallis, Los Angeles Co.—M. J. McGauch, M.; C. J. Meeks, O.; W. Newton, L.; H. C. Sams, S.; G. Duncan, A. S.; D. B. Goodwin, C.; N. H. Price, T.; S. G. Baker, Sec'y; S. T. Moore, G. K.; Mrs. E. Baker, Ceres; Mrs. E. Price, Pomona; Mrs. M. F. Harlow, Flora; Mrs. R. J. Meeks, L. A. S.

Point of Timber Grange, No. 14, Point of Timber, Contra Costa Co.—J. E. W. Carey, M.; C. Carlton, O.; Sister L. J. Wills, L.; C. J. Preston, S.; V. Taylor, A. S.; A. Plumley, C.; A. Richardson, T.; G. W. T. Carter, Sec'y; M. L. Carey, G. K.; Ellen Carter, Ceres; M. Preston, Pomona; M. Copte, Flora.

Turlock Grange, No. 29, Turlock, Stanislaus Co.—Election, Feb. 26th, 1876: B. H. Deane, M.; E. McCabe, O.; W. L. Fulkerth, L.; T. Trimmer, C; A. S. Fulkerth, A. S.; S. H. Jefferds, S.; J. Warner, T.; C. Bradhurst, G. K.; Miss L. Deane, Sec'y; Mrs. C. Fulkerth, Ceres; Mrs. Trimmer, Pomona; Mrs. Jefferds, Flora; Mrs. A. Fulkerth, L. A. S.

Weldon Grange, No. 213, Weldon, Kern Co., Cal.—J. B. Bartz, M.; J. T. H. Gray, O; J. F. Pyle, L.; J. E. Miller, S.; C. L. Brown, A. S.; W. J. Crane, C; H. L. Cook, T.; James Swan, Sec'y; H. D. Stramler, G. K.; Mrs. S. E. Gray, Ceres; Mrs. A. L. Roland, Pomona; Mrs. E. G. Stramler, Flora; Mrs. B. E. Pemberton, L. A. S.; R. C. Roland, Trustee.

The Order in the South.—Of the 25,000 Granges in the United States, over 11 000, or nearly one-half, are in the South. The earnestness with which the farmers of the South have taken hold of the Order, and the generous manner with which her citizens generally and the press there have received the fraternity is refreshing and encouraging to every true Patron.

In Memoriam.

R. B. Robinson, Secretary Stanislaus Grange, No. 4, sends us the following for publication:

WHEREAS, The Divine Master above has seen fit to remove by death our beloved Brother, CHARLES SKINNER, from our midst to his eternal home in Heaven; therefore be it

Resolved, That in the death of Brother SKINNER this Grange has lost a good and respected member, and his friends a true son and brother.

Resolved, That as a band of devoted brothers and sisters we extend our deepest sympathy to his afflicted family in this their time of bereavement.

Resolved, That these resolutions be spread on the minutes of this Grange, and that a copy of the same be sent to the bereft family, also a copy to the RURAL PRESS and Modesto papers for publication.

JOHN V. DAVIS,
P. P. STILES,
J. D. SPENCER, } Com.

Modesto, Stanislaus Co., Feb. 12th, 1876.

MIND AND FIELD.—Writing abont and urging literary exercises in our Granges, the *Dirigo* (Maine) *Rural* says: The minds of farmers may he cultivated as well as their fields. Their fertility promises an abundant yield. Here, as in the natural field, the soil will be found different, and of course the products will differ somewhat in quantity and in quality, but all will be nseful, and we have no doubt that the practice of contributing to this fund of thought will develop surprising resources in this direction, from which grand results may confidently he expected.

AGRICULTURAL NOTES.

California.

ALAMEDA.

TOO MUCH RAIN IN LIVERMORE.—*Enterprise*, Feb. 26: On Thursday afternoon our little hurg was visited by a heavy wind for a few hours. The sky was darkened most of the day with threatening clouds, and matters looked favorable for a good shower of rain. We anticipate a storm—at least at present writing—and such would be a detriment to the valley. Our farms need no further rain until about the last of March.

CONTRA COSTA.

THE CROPS.—*Gazette*, Feb. 26: Some of the finest valley land of the San Ramon and other limited districts yet remains too wet for working, hut will make good crops if it can he got in hefore the first of April. The summer fallow and early sown grain is well advanced in growth, and in no previous season ever looked more promising than now; and nearly all that sown hefore the late rains is up and doing finely. In some soils sown prior to the last heavy rains the grain will hardly all get through the tight, packed, dry crust, nntil it is softened by rain again, or broken with a light rolling or dragging. This baked surface is a great evaporator of moisture from the soil, and will soon exhaust all within reach of the young rootlets if dry weather continues and it is not artificially broken and loosened. Referring to this condition of the surface soil, the agricultural editor of the Sacramento *Record-Union* says: "To prevent this baking or ornsting of the surface it is sometimes a good plan to run a drag or harrow over the field. For such service the teeth of the drag should be driven up so that they will not penetrate the soil to exceed two or three inches. Such an operation loosens up and pulverizes the soil, and at the same time acts as a hoeing to the grain. Soil thus treated will retain or accumulate moisture from the atmosphere and produce an increased crop. Farmers are apt to be afraid that the drag will tear np and injure the growing grain more than it will do it good. Experience proves this fear to be unfounded."

TREE PLANTING.—From the qnantity of yonng trees daily landed in Martinez by the steamer and schooners, it is apparent that the people of the county must be more actively engaged than ever before in the good work of tree planting. It occurs to us in this connection to mention the fact that Mr. T. W. Sturgis is planting a nnmber of thousand blue and iron bark gums and balsam firs on his tract of hill side land below the cemetery.

FRESNO.

WINE.—*Express*, Feb. 23: We understand that extensive arrangements will he made for the manufacture of wine at the Eisen vineyard farm this season. The large vineyard is in a good bearing condition, and a heavy crop is anticipated. The entire product of the vines will be made into wine. Several thousand dollars will necessarily be expended in the constrnction of the necessary apparatus for making wine. The owner of the farm, T. F. Eisen, has opened a champagne manufactory in New York city, and all the wines made on the farm will be shipped from here direct to New York by rail. Several barrels of wine were made on the farm last year, and every person who has tasted it pronounces it a most excellent artiole. The vineyard comprises 120 acres of the very choicest varieties of vines. The vines are now three years old. It is evident that grape culture is soon to form an important element in the prodnots of the connty.

SHEARING.—Sheep raisers are busily engaged in gathering their lamb crop. They will begin to make the wool fly in a week or two.

LOS ANGELES.

AGRICULTURAL ACTIVITY.—*Outlook*, Feb. 23: At present, the ontlook is most encouraging. The rains have been abundant, and the farmers are confident of a rich harvest. Immigrants are coming in large numbers, bringing more or less ready money. Vast tracts of land are being subdivided and sold upon reasonable terms. Farm houses are rapidly dotting the rich lands. New towns are heing established, and old ones are enlarging. Railroads are spreading their arms to gather in the rich products, and carry them to less favored sections. The facilities for ocean transportation are heing rapidly improved. Vast mineral beds are inviting development. Extensive timber regions are heing penetrated. The hills and mountains are covered with luxuriant grasses, affording food in abundance for the herds and flocks. And over and above all shines a genial sun, whose warmth is always tempered hy refreshing sea breezes, friendly alike to man, beast and vegetation.

EAST END OF THE VALLEY.—*Herald*, Feb. 19: The most encouraging accounts come from every part of the county in regard to the growing crops. Mr. P. Potts and Col. Tustin, of Tustin City, were here to-day. They speak of their town and surrounding country in the most enthusiastic terms. Their barley is heading, with the prospect of making the largest crop ever harvested in the county. The fruits and vegetables are as fine as could be wished; in fact everything that soil will produce is growing on a huge scale.

THE ORANGE CROP.—*Express*, Feb. 26: From Mr. Frank Sabichi we learn that the orange crop of the Los Angeles valley proper this year is hardly more than the third of an average one. To compensate for this, however, hoth the flavor and size of the oranges are superior to those of last year. The fruit is bringing an excellent price in San Francisco, the inferior oranges commanding $18 a thousand and the finer fruit selling for three and four cents apiece. The usual experience in the Los Angeles valley is a heavy crop one year and a light one next. Mr. Sabichi thinks that next year's crop will he a very heavy one.

MERCED.

CROP PROSPECTS.—*Express*, Feb. 26: Never have the people of this section of the great San Joaquin valley had more reason to flatter themselves on the prospect for an ahundant harvest the coming season, than at present. From every part and indeed from all parts of the valley, comes cheering intelligence concerning the unprecedentedly fine appearance of the grain fields. The weather for the week past has been warm and pleasant, and vegetation of every kind is growing with rapidity truly astonishing. Our farmers, merchants, sheep and stock men all wear smiling countenances in anticipation of a prosperous season. As a general thing the farmers have prepared their lands this season with better care than heretofore, plowing deeper and sowing thicker. The result of this will be, and we might say is even now, manifestly apparent. The grain looks better, in fact is better than ever before; and in the opinion of experienced farmers, will yield at least a third more. Present indications lead us to believe that times will soon get better by reason of this splendid outlook.

MODOC.

THE COUNTY.—Cor. Colusa *Sun*, Feb. 26: This is principally a grazing country, but we have sufficient agricultural land to more than supply products for home consumption. Until late no attention has been paid to cultivating this land, and now only on a very small scale. We have many settlers who are not enterprising enough to grow their own potatoes, while there are few who deserves credit for the example they have shown in developing our resources. Each year hrings to us a more useful class of settlers. There is yet room for several hundred families in Modoc, and now and then a very good claim yet unoccnpied. Most of the claims held have not even been filed upon. There are places now not considered worth taking up, which will he valuable when we have doubled our popnlation. The larger stock raisers who until late held full sway in these parts have moved further north, where actual settlers have not set their foot. However we have some considerable stock raisers among us, and all have in fact some cattle or sheep, Large quantities of wool, hutter and beef are taken below. The yearly increase is rapid.

MONTEREY

FAVORABLE FOR GROWTH.—*Democrat*, Feb. 26: We have had fine weather—we are writing Thursday—for many days, drying the roads and giving great impetus to vegetation. From all quarters of the county the report is the most satisfactory possible of the condition of the growing crops and of the prospects of the harvest to follow.

PLUMAS.

GOOD REPORT.—*National*, Feb. 9: From every part of the country we hear tho same good report of the agricultural outlook. More ground has been seeded to grain than ever before, and the crop will be at least one-third larger than any previous year. Planting of fruit trees is going forward everywhere with great snccess.

SANTA BARBARA.

THE LOQUAT.—*Index*, Feb. 24: We have received from Mr. Dana B. Clark a present of loquats from the trees that he has been producing. The fruit is pear-shaped, and in color resembles that of a ripe lemon. The taste is peculiar and pleasant, though to some it must he acqnired. The rind, pulp and seeds are all edible, and wholesome. It ripens in January and February, when other fruits cannot be had.

SAN BENITO.

CROPS.—*Enterprise*, Feb. 26: The weather has been remarkably pleasant and favorable for the past two weeks. The night hefore last and yesterday were showery, which will tend to sprout the late sown grain. Crops, which are now nearly all in, never looked hetter in this section, at this season of the year. The prospects for a big harvest are grand.

SAN JOAQUIN.

GRAIN IN FULL HEAD.—*Argus*, Feb 26: We were shown this week, by Chas. S. Evans, of the Merced house, stalks of wheat, barley and oats, grown on a farm near this place, in the open air, this season, that were fully headed out. The heads of harley and oats appeared full of plump grains, but the wheat was blasted, perhaps by the frost. This is the earliest we have ever before seen, even in this prolific country, and satisfied us that all that is needed here to insure continnously ripening crops, is the necessary moisture in the soil. Secure good irrigating facilities to apply the moisture to the soil, and this valley will surprise the world by its prodnctiveness.

SAN LUIS OBISPO.

GRAIN PROSPECTS.—*Tribune*, Feb. 26: The crop prospects grow more promising every day. Early sown barley and volunteer is getting such a start that many farmers have turned stock or sheep upon it to keep it within reasonable hounds and to check its early maturity. Upon some of the stiff adobe soil in low places where water could collect and stand, the grain has drowned out. This, however, is only a trifling evil, there being but little such land in the county. There is fully double the ground seeded over last year and the work has been done so seasonably and well there is little fear of a failure. We hear considerable talk ahout a probable scarcity of labor for the harvest and threshing season. Farmers will do well to bespeak their help in season. The weather continues exceedingly favorable and one or two light showers will make everything secure.

FEARS OF TOO RAPID GROWTH.—The present fine weather has given an impetus to the growth of vegetation in this county seldom if ever witnessed before. The only fear at this time is, that the warm, summer-like weather will push everything forward heyond its season, and that buds and blossoms will get nipped by the late frosts. On Monday and Tuesday of this week the thermometer at Dr. Hayes' recorded 74 deg. in the shade. When we speak of the shade it is ordinarily understood to be within some cool room or on the shady side of the house, but such is not the case with the instrument kept for observation by Dr. Hays. His is placed within a hox, with the front covered with slats to prevent reflection, and then hung upon the north side of his house, which is deeply bowered by large trees. From the record made under such circumstances, it may justly be inferred that the last few days have been decidedly summer-like. On Chas. W. Dana's old place we saw peaches in blossom last Sunday, and any one who will take the trouble to look at J. P. Andrews' almond orchard, may see it one waving sheet of pink petals. Farmers have been feeding down their early sown grain and volunteer for the last month, in order to keep it within bounds and season.

SISKIYOU.

FAILURE.—Yreka *Journal*, Feb. 23: We notice that the great cattle purchasing firm of Phillips & Chandler has failed, and that many stock men in Tehama county are losers, which may also be the case in this county and Modoc, where this firm has also been huying. A correspondent of the Tehama *Tocsin* calls them swindlers and says a meeting was called which Chandler promised to attend and explain the cause of failnre, but he failed again by going to bed instead of going to the meeting. A warrant charging him with embezzlement was sworn out, but as it could not be proven what he done with his money he was discharged.

THE SEASON.—The warm weather of the past few days is starting up the grass finely, and in a short time stock will do well on the ranges. We expect some cold and stormy weather yet, and probably the ground may get covered with snow, but it is too late for any very heavy storms. It will be necessary, however, for most of our stock men to feed considerably for at least a month more.

SONOMA.

AGRICULTURAL OUTLOOK.—*Argus*, Feb. 25: The early part of the present season was much more than usually favorablo for the agricultural interests of this section. The first rain fell on the 27th of October and from that time until the 1st of January tho rainfall in this city amounted to 9.05 inches. Up to that date the frosts were very light and vegetation was well advanced at the heginning of the new year. Heavy frosts and cold storms then commenced, and during the succeeding month grass and grain received a severe backset and farming operations were almost entirely suspended. Febrnary has, on the whole, heen a favorable month, and at present the outlook is encouraging, as it generally is at this season of the year. In most places volunteer and early sown grain has a vigorous and healthy look and promises a full average yield; grass, also, is well advanced, feed good and stock doing well. A good deal of planting is yet to be done.

RUSSIAN RIVER COUNTRY.—*Flag*, Feb. 24: The heavy rains are over. For the past two weeks we have had fair weather, with only light frost on two mornings and without fog, except this morning. We have had no north winds to blight the young grain or parch the ground, which is in splendid condition for cultivation. The water subsided from the bottom land after fertilizing it and with very little injury to grass or grain. Vegetation is coming forward rapidly. The earlier varieties of fruit trees, such as almond, nectarine and peach, are in blossom. The prospect for a large fruit, grain and hay crop is most flattering.

NEW METHOD OF SEEDING.—*Democrat*, Feb. 26: W. W. Gauldin is putting in his wheat different from his usual custom. He has a field, plowed early, which he is now seeding. Instead of replowing the grounn, as is the usual custom, he sows the grain and cultivates the ground with a chisel cultivator. If necessary he runs the cultivator hoth ways, which thoroughly loosens the ground without turning it over. After cultivating thoroughly the ground is harrowed, which leaves it in splendid condition. The surface, exposed throngh the winter to the frost and rain, is left on top instead of being turned under, as is the case when the land is replowed. Mr. Gauldin is trying hoth systems of planting, on land of the same qnality, which was treated the same way np to sced time, and promises us the result of his experiment.

SUTTER.

VERY PROMISING.—*Banner*, Feb. 24: From a short trip we made into the country after going to press last week we are satisfied the crops in this section never looked more promising for a rich yield than now. With the amount of rain, and water laid up for the miners' use through the dry season, and the favorable showers had during the winter for fructifying the earth in the valleys, we ought to feel encouraged for the future. It was never more hright than now.

TULARE.

AN INSTITUTION.—*Delta*, Feb. 24: A traveling carpenter shop is on its way through this valley and is at present located at Tulare. The establishment comprises a sort of half house, half tent, with a floor which is improvised as a carpenter hench, the sleeping bunk being hung on the side, and the covering of the whole affording shelter to the tools and poultry, a cow, two span of horses and other tbings too numerous to mention.

VENTURA.

SATICOY.—*Press*, Feb. 19: In many places the ground has just been turned over hy the plow, while in others barley was a foot high or more. The roads were in some places quite muddy, and slightly cut up, hut they are all right hy this time. As we traveled along we could not help remarking the wonderful improvement this section of the valley has made within the past eight years. Then, there was scarcely a hundred acre farm on this side of the river that was improved or cultivated. Now, neat, snbstantial and even elegant farm houses can be seen on either hand, and long rows of blue gum and other trees mark the dividing line between the different ranches. Mr. M. Cannon has lately completed a fine, new dwelling house on his farm, and in the same vicinity there are three or four more good buildings, which have been constructed within the past two months. Near Saticoy Mr. W. D. Y. Richards has huilt a large and commodious dwelling house, well finished in every particular. The new schoolhouse at Saticoy is a fine structnre, and a oredit to the district in which it is located. It is commodious, airy, hard-finished on the inside, and handsomely furnished. The outside is neatly painted, and altogether presents a handsome appearance. The town of Saticoy improves rapidly lately. Many new buildings are in course of erection.

LIME.—We were shown yesterday at the office of Mr. James Daly a specimen of lime from a deposit recently discovered near Santa Paula, which is as pure and white an article as the very best to be found in the San Francisco market. We did not learn the names of the fortunate discoverers, but if the quarry is as extensive as represented, the owners have a fortune ahead of them.

YOLO.

THE PRESENT PROSPECTS.—*Mail*, Feb. 24: From Antelope to Merritt, and from the tule range to the foothills, the same report comes to ns that "all is lovely." If the people of Yolo county had assembled in convention and prepared a programme to which all could have snhmitted and made a draft upon the clerk of the weather to fnlfill that programme, the condition of things in general could not have been more satisfactory than it is at present. The wheat—and there is a vast acreage of it—is in splendid condition, and the earth is full of moisture, sufficient for all present purposos, and until the late rains come no more is actually needed. Grass is in ahundance; alfalfa looks splendid and tho fruit trees are approaching bloom. Away up in the foothills the crops look well, and on the verge of the tules, in the "swamp and overflowed" lands, grain is looking green and thrifty. We have not heard of a case of "drowning out" in the county, and it is too late now to think about such a catastrophe. If it wore possible we would he pleased to give the nnmber of acres of land in Yolo county sown with wheat, for our information is that there is much more than was ever cultivated in grain before. We have the spring rains and the north winds yet to come. But little of the former will be required if we are spared the latter, and we earnestly hope that the good genins who has dispensed his winter favors so wisely will also preside over us until the harvest is come.

(Continued on Page 156.)

The Hand that Rocks the World.

By William Ross Wallace.

Blessings on the hand of woman!
Angels guard her strength and grace
In the cottage, palace, hovel,
O! no matter where the place!
Would that never storms assailed it;
Rainbows ever gently curled;
For the hand that rocks the cradle
Is the hand that rocks the world.

Infancy's the tender fountain;
Power may with beauty flow;
Mothers first to guide the streamlet,
From them souls unresting grow.
Grow on for the good or evil,
Sunshine streamed or darkness hurled;
For the hand that rocks the cradle
Is the hand that rocks the world.

Woman, how divine your mission
Here upon our natal sod;
Keep, O keep the young heart open
Always to the breath of God!
All true trophies of the ages
Are from Mother Love impearled;
For the hand that rocks the cradle
Is the hand that rocks the world.

Blessings on the hand of woman!
Fathers, sons and daughters cry,
And the sacred song is mingled
With the worship in the sky—
Mingles where no tempest darkens,
Rainbows evermore are curled;
For the hand that rocks the cradle
Is the hand that rocks the world.

Gleanings from Astronomy.

[Written for the Rural Press by Mrs. Georgie D. W.]

"Unconscious from the sands of time,
The pearls of truth to gather."

Here, on the vast plains of California, the panorama which is presented of the "spacious firmament," is indeed one of the most sublime the mind can possibly conceive. When night ushers in her train of stars, while yet the trailing garments of the sunset glory linger over the distant hills, and the weird shadows darken, growing dark, still darker, until upon a sky of intense blackness the thickly inlaid constellations blaze amid their interwoven satellites, the scene is at once transformed into one of more than Egyptian splendor. It was on one of those lovely evenings, while I sat on our cottage porch with little eight-year-old Virgie on the steps at my feet, also gazing intently at the starry host, while I answered her many oft-repeated questions, that I was startled by the sound of merry youthful voices, and three fair young girls clustered around me in gladsome exclamations of delight—that delight which comes only to the fresh young heart, awakened to the sweet romance of moonlight or starlight hours. "What a glorious night!" cried one. "Radiant! beautiful!" said another. "Oh! it is indeed lovely," said Florence, the eldest, a fair young girl of 16, as she sank down on the steps by little Virgie's side. "How very appropriate is Amelia's sweet poem 'On the Stars.'" "Oh! tell it, Floy," said little Virgie, and the sweet voice answered:

"Oh! who can lift above a careless look,
When such bright scenes the thought engage,
And doubt, while reading from so fair a book,
That God's own fingers traced the glowing page."

"Night, gorgeous in her coronet of stars, queen of the jeweled courts of heaven!" cried the merry Kate, in a mock-serious voice.

"No, no, Katie, that isn't good poetry," said little Virgie, with a very demure air; "Not good like Floy's, or mine either."

"What is your poetry, Virg?" said Florence.

"Oh! my poetry says:

'Twinkle, twinkle, little star.'"

"But you needn't laugh, Miss Kate; Grandpa says it's pretty, and *he* knows, 'cause it's got lots of sense in it."

"Very sensible poetry, to be sure, Virgie," laughed Kate; "But there are too many stars for it; I fear your little poet would find rather a difficult task in selecting any particular star to address his sonnet to, on such a night as this."

"Come, cousin Georgie," said the quiet, womanly Mary, who had been listening to the merry talkers. "Do tell us all about the stars to-night; I am sure we are all in the right mood to enjoy astronomy."

"Seek Him that made the seven stars and Orion," I answered.

"My dear girls, there is nothing that can equal the simple grandeur of the Bible; from its inspired pages we learn the first sweet lessons in astronomy."

"The Bible," echoed Kate; "I did not know the Bible had anything about astronomy."

"You forget, Katie," I replied; "Don't you remember in the book of Job, where God asked Job: 'Canst thou bind the sweet influences of the Pleiades, or loose the bands of Orion?' I think Florence remembers Young's beautiful verses on the passage."

"Yes," said Florence, "It is familiar to most all students in astronomy; Mamie can repeat them, I think."

"Repeat them, Mary," I said. She quietly responded:

"Canst thou the skies' benevolence restrain,
Or cause the Pleiades to shine in vain,
When Orion sparkles in his sphere—
Thawe the cold seasons and unbinds the year—
Bid Mazzaroth his station know,
And teach the bright Arcturus where to glow?"

"Indeed, I did not know there was anything so beautiful in the Bible before," persisted Kate. "Will you find them for me to-morrow?"

"Most willingly," I replied. "The Bible is full of the most beautiful truths, if we did but heed them. From the Bible we learn that astronomy dates back even unto the first day, when God said 'Let there be light, and there was light.' Josephus tells us that Abraham was the first teacher and writer on the celestial sciences. He says Berosus, a great ancient writer, speaks of Abraham as a Chaldean man, righteous and greatly skilled in the celestial sciences. All the ancient writers, both Greek and Roman, attribute the classing of the constellations, particularly those of the zodiac, to Chaldea."

"Canst thou bind the sweet influence of the Pleiades," repeated Florence, her fair upturned face scanning the mystic cluster. "Oh," said Mary, "they are perfectly radiant to-night. Do you remember the pretty story of the seven stars?"

"A story," cried the wide awake Virgie; "please tell the story."

"Well, once upon a time, a long, long, time ago, the people that lived in those days believed that the cluster of stars you see yonder were seven beautiful sisters, and one of them, the most beautiful of them all, dared to love a mortal, which so enraged the reigning god, that he caused her to be burnt up." "Yes," I continued, "the ancients believed some very unlikely things. They also believed the stars governed all earthly things, particularly the zodiac."

"Bring forth Mazzaroth in his seasons?" questioned Mary, "Mazzaroth means the zodiac, does it not, cousin Georgie?" "Yes," I returned, "I was trying to learn them to Virgie."

"How many do you know, Virgie?" inquired Kate.

"Oh, when mamma helps me, I can say them all."

The little one commenced in quite a confident voice. "Aries, Taurus, Gemini," ("Cancer," I helped,) "Libra"

"No, darling, Leo comes next, then Virgo, then Libra, Scorpio, Sagittarius, Capricorn, Aquarius and Pisces." The disconcerted Virgie hid her face in my dress, poutingly declaring she didn't believe Katie could say them at all herself.

"No, indeed," cried Kate; "you beat me, Virgie; you know three, and I am sure I could'nt name one."

After the little laugh at Virgie's expense, I continued, speaking of the ancients' belief in the zodiacal signs, "I suppose it is true they did sincerely believe that all earthly things were governed by the signs of the zodiac, and we need not go so far back into the ages for the remains of such belief. I was reading not long since in an old book called the 'English Physician,' published only 150 years ago, and written by 'Nicholas Culpeper, gentleman, student in physic and astrology.' In one of his prefaces he says, 'to such as study astrology, who are the only men I know that are fit to study physic, for I believe that physic without astrology is like a lamp without oil,' etc.

"But then we need not go back 100, or even 50 years ago, for I am sure we have in our very midst a superstition worse than ever existed since the dark ages."

"Do look, girls," said Mary, "see how plain the sword of Orion looks—how like a beautiful comet."

"You can only see the principal stars," I resumed. "That nebulous cluster is considered by astronomers to be the most complicated nebula observed, at least from the time of Sir William Herschel, and his sister, Miss Caroline Herschel—a lady eminent for her astronomical knowledge, who always assisted Sir Herschel in all his studies of the heavens.

"In 1845, the scientific world watched with profound anxiety the results from the investigation of Lord Rosse's wonderful six feet mirror. Its first trial was made on that nebula but I believe it proved more or less a failure, so far as the resolution of the nebula into distinct stars is concerned."

"How dazzlingly brilliant Orion is to-night," said Florence.

"Yes," said Kate, "But what an absurd notion of calling Orion a mighty warrior. I never would have found it out if it had not been for Floy. I had always been hunting for a wonderful giant, with uplifted arms and with shield and helmet, etc."

"Yes, Kate," I remarked, "there have been wiser heads than yours that have never been able to trace out 'Warrior Orion.' But the simple 'Orion Parallelogram' can be, and, in fact, it is, one of the easiest constellations in the heavens to trace out."

"Easy enough," returned Kate, "after one finds it once."

"Yes," I returned; "there is where all the trouble lies with the ordinary observers of the heavens—I mean those who are not practical astronomers. The descriptions of the constellations are given by astronomers through the assistance of powerful telescopes, that most ordinary people, like ourselves, don't possess; and, consequently, we cannot see with 'their eyes.' And in our fruitless endeavors to find out the constellation so clearly depicted on the map or globe, we give it up as something beyond our 'ken'; when, if they would only give some simple rules, by which we could find out the constellation with the naked eye, or by means of a small spy or opera glass, how much pleasure even the little child might enjoy.

"Prof. Dick, the Christian philosopher, is one of the most sensible reasoners I have ever read. He says of the representations and figures of the celestial constellations, which we have now depicted on our maps and globes, 'in my opinion are awkward and most unnatural. The unnatural and hieroglyphic figures have no resemblance to the group of stars they are intended to represent, such as bears, serpents, rams, flying horses, three-headed dogs and many other frightfully ridiculous objects. Even when the imagination has stretched its utmost in order to fancy a resemblance, it is obliged to twist the creature's wings and legs and tails and claws in a dreadful manner, so as to take all the stars into a group, some pretty large ones being left after all, unformed in the intermediate spaces.'"

"These are my sentiments exactly," said matter of-fact Kate; "Prof. Dick shall have my undying gratitude. But can you not tell us what you consider a simple rule, by which we may trace out the different constellations?"

"For the casual observer," I replied, "I find one of the best methods is to take for our guide some particular constellation or star that is familiar to us, their degrees and distances that have already been determined by astronomers, and apply the rule to others.

"But first, a young beginner must know something of the relative position of the stars, and the different positions they bear to each other at different periods of the year. The different constellations, although they may change their position at different times of the night and seasons of the year, never shift their position in regard to each other, but remain unchangeable as when in that first hour they were spoke into being by their maker. Of course, astronomers and students can readily determine their positions by applying the rule of dividing the circle, which you know is three hundred and sixty parts, subdivided into halves, quarters and eighths. Astronomers give the apparent diameter of the sun or moon as a half a degree. Thus, you see, many thousand miles are compressed into a very small compass. For instance, the two bright stars in the bowl of the Big Dipper, or Ursa Major, are just five degrees apart, and they point out the North Pole star, in the handle of the Little Dipper, or Ursa Minor; and the two stars in the Little Dipper point to the brilliant star, Arcturus, in the constellation Bootes. Thus you see one constellation is a guide to others.

"The Pleiades are the next familiar object in the heavens, but as their orbit is entirely different from the 'Dippers,' they can be seen at night only six months in the year, while the 'Dippers' never disappear beneath the horizon, as they belong to the circumpolar constellations. The Pleiades are only visible the whole night during the winter seasons. They are now, the 25th of January, on the meridian.

"About 14 deg. southeast of the Pleiades is the bright, ruddy star, Aldebaran, in the constellation of Taurus, besides having a little constellation all of its own, which I think one of the sweetest little ones in the heavens. It is a little cluster of stars, in the exact shape of a V. Aldebaran forms the top of the letter on the right side; the other principal four stars are very indistinct to the naked eye."

"I have very often admired that tiny cluster," said Florence. "How appropriate its name, the Hyades. But let us continue the formula of given rules for Kate's benefit."

"Sixteen deg. southeast of the Pleiades and Aldebaran may be seen the splendid parallelogram of the Orion. Now let us take the Orion for a guide—the first bright star about 16 deg. from Aldebaran is the bright star Bellatrix, in the southwest shoulder of the Orion. Now, measure a straight line eight degrees southeast and you will find Betelguese in the right shoulder; a line 15 degrees northeast, you meet Saiph in the right knee, a star of the third magnitude. Again, northwest, eight degrees, you find Rigel, a star of the first magnitude, in the Orion's left foot. Now, 15 degrees back to Bellatrix, and the Orion parallelogram is finished.

"In the middle of this parallelogram are the three bright, equi-distant stars, known as the 'Three Kings,' or the 'Ell,' or 'Yard,' also mentioned in the book of Job as the 'Bands of Orion.' They are just three degrees apart, one and a half between the central and the one on each side. The little needle-like cluster running obliquely from the belt is the Sword of Orion. Again, a line passed through the Orion belt, east and west, points to the Pleiades on the west side and Sirius on the east side. North of Sirius—the dog star—but at a higher elevation, is 'Procyon' (the lesser dog). Northeast of Procyon, at a little higher elevation, is Castor and Pollux, in the constellation of Gemini—belongs to the zodiacal constellation.

"Castor is the double star," said Florence. "Yes," I returned, "it is very interesting, and we must get our telescope, and let Kate see what a wonderful change in the combination the assistance of the lens can make."

For some time there was a chorus of exclamations and questions given and answered, until I at last interrupted the busy star gazers with—"My dear girls, it is getting late and we must indeed quit this charming scene."

"Oh! it is too lovely to sleep," said Mary. "See! the full moon is even now rising in full tide of glory, and our pretty stars are growing pale," I continued. "But to fill to completeness the beautiful night," persisted the dear child.

"Envious moon," said Kate. "Her royal ladyship is bidding our beautiful stars to be 'beautifully less.'"

"Dear little Virgie has gone to sleep," said Florence, tenderly, "with her long fair hair leaning against your black dress. She looks like a little star herself."

"Dear cousin," said Mary, "I thank you so much for a pleasant evening." "And I," said Kate, "for my instructive one, and the Bible truths you told me of."

"I hope this will not be our last pleasant evening," I returned. "As our time is limited in observing the most beautiful constellations. But then our opportunities are so favorable; isolated as we are from the busy world, we can resort to our beautiful 'City of Stars,' and wander at will amid the jeweled courts of kings."

"Yes," laughed Kate, "to the Orion castle, for instance, to make due obeisance to the three kings."

"Then let us bid the shining host good night. Hoping very soon to resume our pleasant recreation, and in making ourselves familiar with the heavens we may enlist others, which will, indeed, make it a two-fold pleasure."

"But now the moon doth softly fling
A silvery radiance o'er lake and hill,
And all the planets, following slow and still,
Along the depths, their solemn marches hold,
While here and there some meteor's startled ray
Shoots streaks of arrowy fire adown the milky way."
—*Amelia's Poems*

The Limit of Human Intellect.

A column or bridge cannot be carried beyond a certain size without crushing or breaking in substance; and a whale, if unsupported by the surrounding water, would die from the pressure of his own weight. A small animal will leap many more times his length than a large one, and the integrity of his slender limbs will not be injured by the exertion. The useful development of a tree is known to be promoted by severe pruning; and where this is impossible, as in primeval forests, the trees prune themselves, and attain greater hight by the death of their under branches, the insufficient supply of sunlight being monopolized by the upper and dominant members at the expense of the lower.

These examples, drawn both from inert and organic matter, may serve to illustrate the corresponding truth that human intellect, though varying in capacity in different individuals, has its limits in all plans of enlargement by acquisition; and that these limits cannot be transcended without aggregate deterioration in distracting the attention, overloading the memory, or overworking the brain, and sapping the foundations of health.—*Jacob Bigelow, M. D.*

A Beautiful Allegory.

Mr. Crittenden, of Kentucky, was once engaged in defending a man who had been indicted for a capital offense. After an elaborate and powerful argument, he closed his effort with the following beautiful and striking allegory:

When God in his eternal council conceived the thought of man's creation, he called to him the three ministers who wait constantly upon the throne—Justice, Truth and Mercy—and addressed them: "Shall we make man?" then said Justice, "O, God, make him not, for he will trample upon thy laws." Truth answered also, "Oh, God make him not, for he will pollute thy sanctuaries." But Mercy dropped upon her knees, looking up through her tears, and exclaimed, "Oh, God, make him—I will watch over him through all the dark paths which he may have to tread." Then God made man, and said to him, "O, man, thou art the child of Mercy, go and deal with thy brother."

The Young Napoleon—How he Spends his Time.—A correspondent of the St. Louis *Democrat* writes as follows: Napoleon the possible Fourth rises at dawn and works hard all day. His programme of study, which he now pursues in the classic retirement of Cobden Place, is rather severe. On Mondays he studies the facts of history in the morning, and the philosophy of history in the afternoon. On Tuesdays geography, and after simple geography, the manners, climate and wealth of various regions. On Wednesdays he looks into the administrative organization of France as compared with that of other nations. On Thursdays he studies judiciary organization. On Fridays French politics, past and present. On Saturdays he indulges, with competent professors, in a profound examination of contemporary events. On Sundays he rests.

The Cow.—If civilized people were ever to lapse into the worship of animals, the cow would certainly be their chief goddess. What a fountain of blessing is a cow! She is the mother of beef, the source of butter, the original cause of cheese, to say nothing of shoes, horns, hair combs, and upper leather. A gentle, amiable, ever yielding creature, who has no joy in her family affairs which she does not share with man. We rob her of her children, that we may rob her of her milk, and we only care for her that the robbery may be perpetuated.—*Household Words.*

Women in Society.

The great French Emperor Napoleon, while in conversation with some of his courtiers on the subject of the nation, its soldiers, their patriotism, etc., was asked what France most needed, and his emphatic reply was "mothers." In all countries where woman is held, as the equal of man, her influence is wonderful for good or for evil as she may choose to use it. How important then that she should be actnated by the right motives and should be found in the society of the young, to help shape their characters for usefulness. The society of woman is not only refining, but it is agreeable, and in society composed largely of women, needs no other and could find no greater element of cohesion.

Many of our readers remember the old Washingtonian temperance society, which rose and spread rapidly for a while, but then dwindled down to a handful. The Sons of Temperance then came on the stage of action. They adopted closed doors, or secrecy, but there was an element of strength and cohesion yet lacking, and when the Good Templers came with woman as a colaborer, the Sons of Temperance had to admit her as a visiting member to hold their membership.

Take women out of the church to-day, and who can safely say how long it would survive the blow? Pious men of course would not forsake their religion, but they would enjoy it at home with their families rather than at a public place of worship without them, and their influence would be lost to the world.

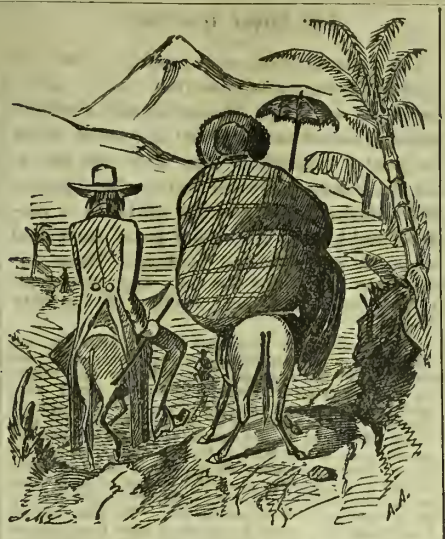
Only a few days since we heard a gentleman remark, "*Woman holds the keys sure*, if she only knew it." The history of the past is full of instances of men being led to destruction or saved as brands from the burning fire by the influence of woman. A certain man once said, "let me write the songs of a nation, and I care not who makes the laws." He might have said, gnarantee the virtue of the women of the nation and give them their proper position in society, and I will warrant the nation's safety. What nation or society can ignore this influence?

The success of the Patrons of Husbandry was secured as soon as woman was admitted within the gates. What is most needed now, is to give her work there and encourage her to do the work. Make her feel at home, then bring in the younger members of the community under her influence, and the farmer's future is bright and his destiny safe.

Unwelcome Intruders.—The Santa Rosa *Democrat* tells the following: A very ludicrous occurrence took place yesterday in the heart of the town. Jim Gray was driving a band of sheep, which got separated, part of them coming up Fourth street. Just opposite the post-office they bunched, and had been running round each other in a sort of frightened way for some time. Press Davis came along and started up the stairway to his office, in the second story of Mrs. Spencer's building, taking two steps at a bound. The leader of the band of sheep perhaps canght a glimpse of Davis' heels, and was determined to follow something. Either from that or some other canse it made a break for the stairway, taking the gutter at a bound, kicking back with a feeble bleat just before it lit on the sidewalk. Each sheep followed suit, and the whole flock went scampering and clattering up the steps. Davis, dumbfounded at the noise, ran to his office, and had hardly got inside when his pursuers bounded through the open door. For a moment he was so astonished that he did not know whether he had mistaken a sheep corral for his office or whether the sheep had mistaken his office for a corral. We venture to say that there was never before such a scene in a surveyor's office. After they had dashed around the room and through the hall for some time they were secured and taken again to terra firma. Press, who is as fond of fnn as anybody, enjoyed the laugh as much as did all who witnessed or heard about the curious freak of a band of sheep.

Has the Gorilla Human Instincts?—This question would almost seem to require an affirmative answer if the following is literally true: The only captive gorilla in existence recently died in the Zoological Gardens, in Dresden. The animal, a female, was long supposed to be a champanzee, and it was only lately that, to the surprise of all naturalists, her gorilla characteristics were recognized. The story of the death scene of this almost human monkey is a remarkable one, since it goes to show that the animal was the possessor of feelings hitherto deemed absent among the brutes. Says a writer in the London *Echo*: "As Director Schopf (the director of the gardens) leaned over his favorite, the ape drew him toward her, placed her arm around the neck of her kind friend, and looked at him for some time with clear and tranquil eyes; she then kissed him three times, with short intervals between each salute, motioned to be laid upon her couch, gave her hand to Schopf—as though bidding farewell to a companion of many happy years—and slept never to wake again."

Plant Flowers.—No home is attractive to children without flowers and fruits, and nothing is more productive of pleasure in a family than the innocent employemt of caring for nature's "blooming beauties" that never fail to come at our calling, whenever a little attention is paid to their cultivation. We hope every family will, the coming summer, enjoy the elevating influence of a flower garden.



Crossing the Isthmus.

Young Folks' Column.

The Beginning.

"Give me a cent and you may pitch one of the rings, and if it catches over a nail, I'll give you six cents."

That seemed fair enough, so the boy handed him a cent, and took a ring. He stepped back to a stake, tossed his ring, and it caught on one of the nails.

"Will you take six rings to pitch again, or six cents?"

"Six cents," was the answer, and two three-cent pieces were put into his hand. He stepped off well satisfied with what he had done, and probably not having an idea that he had done wrong. A gentleman standing near had watched him, and now, before he had time to look about and rejoin his companions, laid his hand on his shoulder.

"My lad, this is your first lesson in gambling?"

"Gambling, sir?"

"You staked your penny and won six, did you not?"

"Yes I did."

"You did not earn them and they were not given you; you won them just as gamblers win money. You have taken the first step in the path; that man has gone through it and you can see the end. Now, I advise you to go and give him six cents back, and ask him for your penny, and then stand square with the world, an honest boy again."

He had hung his head down, but raised it quickly, and his bright, open look as he said, "I'll do it," will not be forgotten. He ran back and soon emerged from the ring, looking happier than ever. He touched his cap and bowed pleasantly as he ran away to join his comrades. That was an honest boy.

Getting the Boys Up.

Calling a boy up in the morning can hardly be classed under the head of pastimes. And it is a little singular that the next hardest thing to getting a boy *out* of bed is getting him into it. There is rarely a mother who is a success at ronsing a boy. All mothers know this; so do their boys. And yet the mother seems to go about it in the right way. She opens the stair-door and insinuatingly observes, "Johnnie," There is no respouse. "Johnnie," louder. Still no response; then there is a sharp, short "John," followed by a prolonged and emphatic "John Henry." A grunt from the upper story signifies that an impression has been made, and the mother is encouraged to add: "You'd better be getting down here to your breakfast, young man, before I come up there and give you something you'll feel." This so startles the "young man" that he immediately goes to sleep again; and the operation has to be repeated several times. A father knows nothing about this trouble. He merely opens his mouth as a soda bottle ejects its cork, and the "*John Henry*" that cleaves the air of that stairway goes into that boy like electricity and pierces the deepest recesses of his very nature. And he pops out of that bed, into his clothes and down the stairs with a promptness that is commendable. It is rarely that a boy allows himself to disregard the paternal summous,—about once a year is often enough to quicken his understanding. He saves his father a great many steps by his thoughtfulness.—*Danbury News.*

A Five Hundred Dollar Cat.

Our young friends will say that five hundred dollars is a big price to pay for a cat. But this is when and how it came about: The Londoners are famous for their "cat shows." Cats are often exhibited there as we exhibit the more useful animals here. One of these shows was lately held at Sydenham palace, near London, where over four hundred cats were placed on exhibition. The prize cat took a premium of twenty-five dollars. He's a splendid fellow, named "Tommy Dod"—nine years old, and considered worth five hundred dollars. The heaviest specimen in the show weighed a few ounces over eighteen pounds. There's a cat for you, which would be a pretty good load for some of the little boys and girls who read this column.

Good Health.

Care of the Hands.

Great care should be taken to keep the nails neat and well trimmed. They should be rounded at the top, and not too closely. Their polish and rosiness may be increased by brushing and rubbing.

To improve the skin of the hands and arms, take two ounces of Venice soap, and dissolve it in two ounces of lemon juice. Add one ounce of the oil of bitter almonds, and a like quantity of oil of tartar. Mix the whole, and stir it well until it has acquired the consistency of soap, and use it as such for the hands.

The paste of sweet almonds, which contains an oil fit for keeping the skin soft and elastic, and removing indurations, may be beneficially applied to the hands and arms.

For hands that are stained, there is an easy remedy. Dampen the hands first in water, then rub them with tartaric acid, or salt of lemons, as you would with soap; rinse them and rub them dry. Tartaric acid, or salt of lemons, will quickly remove stains from white muslin or linens. Put less than half a tablespoontul of salt or acid into a tablespoonful of water; wet the stain with it, and lay it in the sun for an hour; wet it once or twice with cold water during the time; if this does not remove it repeat the acid water, and lay it in the sun.

A most excellent ointment for hands that are scratched, burnt or sore, is thus prepared: Take three drachms of camphor gum, three of white beeswax, three of spermaceti, two ounces of olive oil—put them together in a cup upon the stove, where they will melt slowly and form a white ointment in a few minntes. If the hands be affected, anoint them on going to bed, and put on a pair of gloves. A day or two will suffice to heal them.

For chapped hands, instead of washing the hands with soap, employ oatmeal, and after each washing take a little dry oatmeal and rub over the hands, so as to absorb any moisture. —*Illustrated Weekly.*

Eating—How to Keep off Dyspepsia.

It is an old German adage that "more people dig their own graves with their teeth than with spades," and verily it would seem so if we would look at the immense number of dyspeptics, rheumatics and gouty individuals, creeping through life in pain and wretchedness. Yet it is next to impossible to induce even thinking people to control their appetites, and to eat such things and at such times as nature shows them is necessary and right. Dr. Hall declares, unhesitatingly, that it is wrong to eat without an appetite, for it shows there is no gastric juice in the stomach, and that nature does not need food; and not needing it, there being no fluid to receive and act upon it, it remains there only to putrefy, the very thought of which should be sufficient to deter any man from eating without an appetite the remainder of his life. If a tonic is taken to whet the appetite, it is a mistaken course, for its only result is to cause one to eat more when already an amount has been eaten beyond what the gastric juice is able to prepare. The object to be obtained is a larger supply of food; and whatever fails to accomplish that essential object, fails to have any efficacy towards the cure of dyspeptic diseases. The formation of gastric juice is directly proportioned to the wear and tear of the system, which it is to be the means of supplying, and this wear and tear can only take place as the result of exercise. The efficient remedy for dyspepsia is work—out-door work—beneficial and successful in direct proportion as it is agreeable, interesting and profitable.—*National Granger.*

Don't Worry Yourself.

To regain or recover health, persons should be relieved from all anxiety concerning diseases. The mind has power over the body. For a person to think he has a disease will often produce that disease. This we see effected when the mind is intensely concentrated upon the disease of another. It is found in the hospitals that surgeons and physicians who make a specialty of certain diseases are liable to die of them; and the mental power is so great that sometimes people die of diseases which they only have in imagination. We have seen a person seasick in anticipation of a voyage before reaching the vessel. We have known a person to die of cancer in the stomach when he had no cancer or any other mortal disease. A blindfolded man, slightly pricked in the arm, has fainted and died from believing that he was bleeding to death. Therefore, well persons, to remain well, should be cheerful and happy; and sick persons should have their attention drawn as much as possible from themselves. It is by their faith that men are saved, and it is by their faith that men die. If he wills not to die, he can often live in spite of disease; and if he has little or no attachment to life, he will slip away as easily as a child will fall asleep. Men live by their souls, and not by their bodies. Their bodies have no life of themselves; they are only resources of life—tenements of their souls. The will has much to do in continuing the physical occupancy or giving it up.

Domestic Economy.

How to Breakfast.

The *Sanitary Record* (English) sanctions our American custom of a substantial meal soon after rising, as follows: Let a healthy man really "break" his "fast" with a substantial meal, and not break his breakfast with irritating little nips or slops beforehand. After the stomach has at its leisure emptied itself during sleep of its contents, and sent them to repair the worn tissues and exhausted nerve force, and the blood has been ventilated and purified by washing and dressing with the window open, then is the time when the most perfect of all nutritive articles, farinaceous food, can be consumed in larger quantities with advantage. Butter also, and fat and sugar, troublesome customers to weak digestions, are then easily coped with, and contribute their invaluable aid to performing the duties of the day. For example, many persons can drink milk to a fair and useful amount at breakfast, with whom it disagrees at other hours. And the widely advertised "breakfast bacon" by its name warns the consumer against indulgence later on in the day. *Cafe au lait* and sweet, creamy tea are to many men poisonous in the afternoon, though in the prime of the morning they are a wholesome beverage to the same individuals. Let the vigor, good humor, and refreshment then felt by a healthy man be utilized without delay in eating a hearty meal immediately after he is dressed, and not frittered away in the frivolities of other occupations. Let not reading, writing or business—muscular, political or economical—exhaust the nervous system. The newspapers and letters should not be opened, preferably not delivered, till the appetite is thoroughly appeased.

Economy in Housekeeping.

In buying anything, be it groceries or cotton cloth, be not "penny wise or pound foolish." Some people with an honest desire to economize look well to the "spigot but forget to watch the bung." They spend hours running from one store to another to see where they can buy the cheapest, and if they get an article a few cents less at one place than has been asked them at another, they are in high spirits over their purchasing ability, never dreaming that they have, even at the price given, paid more than the article was worth! Some cannot discriminate fine flavored coffee from that of insipid or rank flavor. That being the case, a cheap article will answer their purpose just as well. Indeed many people educate their taste just to suit their purse—that is well. A man with a slim purse is better pleased and much happier if he have not a refined taste, as it is certainly an expensive thing to own; but if he have, better buy a little of a good article than a good deal of a poor one.

Nothing is ever gained by buying cheap articles, nor by changing your place of trade often. Trade at one place year after year if you can find a place to suit you. A store keeper soon learns to prize you if you prove a good cash customer, and will give you many liberal trades. I have known them many a time to even tell a good customer when there was going to be a rise in a certain article, and advise the purchasing of more than the usual stock. Transient customers never reap the benefit of any such hints, and then wonder why they cannot buy things reasonably.—*Germantown Telegraph.*

Tipsy Cake.—Take a stale spouge cake, cut the bottom of it so as to make it stand even on a glass dish. Make numerous incisions in it with a knife, and pour over it half a pint of sherry and a glass of brandy; let the cake soak these all up. Blanch, peel, and slice some sweet almonds, and stick the cake all over with them. Blanch, chop, and pound in a mortar one-quarter pound of sweet almonds, moistening with a little orange flower water to prevent their oiling; add one pint of milk and the yolks of six eggs; sweeten to taste with pounded loaf sugar. Stir over the fire till the custard thickens, but do not let it boil. Keep stirring now and then till it is quite cold, then pour it round the cake. Garnish the dish with crystallized fruit, and it is ready.

Eggs and Minced Veal.—The N. Y. *Times'* recipe for preparing eggs and veal is the following: Take some remnants of roast veal, trim off all browned parts, and mince it very finely; fry a shallot, chopped small, in plenty of butter; when it is a light straw color, add a large pinch of flour and a little stock; then the minced meat, with chopped parsley, pepper, salt, and nutmeg to taste; mix well, add more stock if necessary, and let the mince get gradually hot by the side of the fire; lastly add a few drops of lemon juice. Serve with sippets of bread fried in butter, round, and poached eggs on the top.

Fried Cauliflower.—Pick out all the green leaves from a cauliflower and cut off the stock close. Put it head downward into a saucepan full of boiling, salted water. Do not overboil it. Drain it on a sieve, pick it out into small sprigs, and place them into a deep dish with plenty of vinegar, whole pepper, salt and a few cloves. When they have laid about an hour in this, drain them, dip them in batter, and fry in hot lard to a golden color.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, March 4, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS. — Agriculture in South Australia; Seymour's Cotton Planter, 145. Our Russian Rival; The Silver Question; The Advancement of Dairying; A Process Which is Not Patented, 152. Agriculture in the Legislature; A Mariposa Lily; Bags and Tonnage, 153. Sales of Farming Lands; Fluctuations of Prices for 10 Years in the San Francisco Wheat Market; The Bill Against Land Grabbing; Patents and Inventions, 156.

ILLUSTRATIONS.—Seymour's Cotton Planter, 145. California Squirrel, 153.

CORRESPONDENCE. — Botanical Excursions: Practical Themes; The Evil of Dry Sowing, 146-7.

ARBORICULTURE.—The Pyracanth as a Hedge Plant; The Pecan as a Timber Tree, 147.

THE DAIRY.—A Dairymen's Association, 147-154.

PATRONS OF HUSBANDRY.—The Grange Work and its Critics; Potato Growing Discussed by Centerville Grange; Pomona Granges; Grange Directory; Worthy Master's Decision; Mt. Whitney Grange; Grangers' Business Association; The Order in the South; From the Granges; Election of Officers, 148. In Memoriam; Mind and Field, 149.

AGRICULTURAL NOTES from various counties in California and Oregon, 149-156.

HOME CIRCLE.—The Hand that Rocks the World (Poetry); Gleanings from Astronomy; The Limit of Human Intellect; A Beautiful Allegory; The Young Napoleon—How he Spends his Time; The Cow, 150. Women in Society; Unwelcome Intruders; Has the Gorilla Human Instincts? Plant Flowers, 151.

YOUNG FOLKS' COLUMN.—The Beginning; Getting the Boys Up; A Five Hundred Dollar Cat, 151.

GOOD HEALTH.—Care of the Hands; Eating—How to Keep off Dyspepsia; Don't Worry Yourself, 151.

DOMESTIC ECONOMY.—How to Breakfast; Economy in Housekeeping; Tipsy Cake; Eggs and Minced Veal; Fried Cauliflower, 151.

QUERIES AND REPLIES.—Queries from Colorado: Various Points; Onions and Lettuce, 153.

HORTICULTURE.—Cherry Culture—No. 4; Oil of Roses and its Preparation, 154.

USEFUL INFORMATION.—Refrigerating Railroad Cars; To Coat Nails with Tin; Casting Stove Plates; The Hair of Squirrels' Tails for Brushes; Charcoal Improved by Age; How to Build a Lime Kiln; Steel and Iron Wire Rope, 154.

GENERAL NEWS.—General News Items and Miscellaneous Paragraphs, on 156 and other pages.

SHEEP AND WOOL.—The Wool and Woolen Interest; Pulling Wool, 158.

MISCELLANEOUS ARTICLES. — To Determine the Size of Gas Pipe Needed, 147. To Detect Leaks in Gas Pipes; What is Life? 154. To Fasten Labels to Tin Cans, 158.

NEW ADVERTISEMENTS.

Seeds, Geo. F. Silvester, S. F.; Florence Sewing Machine, Sam'l Hill, Agt., S. F.; Berkshire Swine, R. S. Thompson, Napa; Wool, Miller & Co., S. F.; Land for Sale, Stanley & Thompson, Napa, Cal.

The Week.

The week has been one of activity in some of our farming communities. In the localities where the season's seeding has been delayed by the continued wet weather, there has been hard work in the fields, and all hands and horses have improved the shining hours. Garden work has been vigorously pushed, both in planting and cultivating. The first fruits of garden soil are just now coming into our markets. We have had new potatoes and green peas, and the last week brought the cucumbers. All these things tell of the progress of our growing season, and we commend these pledges of genial sunshine and warm soil to our friends who still tarry beneath the snow blanket at the East.

Among our shepherds there has come the hight of the lambing season, and shearing is at hand. There is evidently work ahead. We are advised from some parts of the State that there is doubt whether the available labor will be sufficient for the harvest time. Certainly there is a prospect of plenty of work and good pay for the laborer.

THE steamship *Faraday* has arrived at the fracture of the Direct cable, and picked up and buoyed both ends together, and is now awaiting favorable weather to splice.

Our Russian Rival.

One of the late news notes of great importance to the wheat grower of the United States is a whine from the Chamber of Commerce in Odessa, embodied in these words: "The mind is positively lost in painful thought when considering the quantity of corn America will soon be enabled to export. America will absolutely command the English market, and reduce prices to a *minimum*, with which it will be utterly impossible for us to compete."

Thus it appears that the trade authorities in Odessa, Russia's great wheat shipping point, virtually yield to America the palm of conquest in the contest to supply the English demand for breadstuffs. Nor is this a matter of anticipation alone. The course of events is so well under way in this direction that the result may be clearly seen. The following are the gloomy figures upon which the Russians base their expectation of disaster: Of the entire quantity of grain imported into England in 1867, 44 per cent. came from Russia, while only 14 per cent. was contributed by the United States. By 1873—that is, a year before the South Russian crops began to fail—this position had been inverted, the United States providing 44 per cent. of England's foreign consumption, Russia contributing only 21 per cent. It is true that the absolute quantity of Russian corn exported in the years intervening between these dates increased from 18,000,000 of tchetverta to over 20,000,000, or, in money, to about 160,000,000 roubles; but as American exports in the four years between 1871 and 1874 suddenly rose from $76,000,000 worth to $145,000,000, the diminution of Russia's competitive power is established. The last three crops having been scanty, must have given further advantages to American corn in the English and German markets. In 1874, up to August 1st, the date when most of the corn is under way, only 16,240,000 tchetverts were shipped; in 1875 the figures fell to 14,780,095 tchetverts; in the current year it is anticipated it will be even less.

This is the frank statement of affairs which comes from Odessa. The gist of the whole matter is, of course, that Russia, which was our superior, and then our rival in the business of supplying the English with wheat, is now greatly our inferior. This was established before the late disastrous seasons decreased the Russian wheat yield, and now her production has so far fallen away that she seems hopelessly behind us. We do not desire to build success upon another's misfortunes, or to make others poor that we may be rich, but as the burden of supply comes upon us fairly, we cannot but congratulate ourselves upon it, and seize firmly the market which is thus laid open to the product of our industry. If our grain growers are true to the opportunity which is offered them, if they prove masters of the situation by seeing to it that the rewards of the industry fall into the hands to which they rightly belong, then there will be prosperity upon our farms, and culture and comfort in our farmers' homes.

There may be lessons learned from the agricultural inferiority of Russia, as shown in this contest with us for the profits of the English grain markets. It is a significant fact that the conditions which have enabled us to succeed are clearly perceived by the English themselves and promptly placed to our credit. The London *Times* makes the point that Russia's scheme for the mastery of the food supply was deeply laid; that the abolition of serfdom in 1861 was undertaken with the idea that the improvement of the common people was necessary to an industrial triumph. But the work could not be done in a day. The freeing of the serfs, although a noble act and one which will eventually accomplish their elevation, has at first only effected an unsettling of Russia's social statics, and decreased the productive labor power of the country. Thus Russia entered the contest with us and has succumbed. The secret of our triumph lies in the free manhood and intelligence of our agricultural classes, and the independence and energy which are characteristics of our productive enterprises.

What better tribute to American farmers could be paid than this English opinion of the reason of our victory? It is recognition of the truth of the principles upon which our government was founded. It is a demonstration of the practical results which our national policy can secure. It is proof that our agriculturists are true to that policy, and can maintain it by their deeds. It is an instance of the triumph of the American idea. It will be Russia's greatest contribution to the glory of our Centennial—this admission from Odessa that our wheat triumph is complete, coupled with England's declaration of the reasons of our victory.

Let the farmers of the United States gain strength for new conquests from this success. They are on the right course. Free men must also be intelligent and enlightened men, and energetic men. If thus they be, their work will tell. But the end is not yet. Our progress in agriculture brings continually new problems. The sir to-day is full of the notes of hardship which embarrass our industry in many ways. These must be swept away. We have beaten Russia by the force of superior intelligence and energy. The same force will win at home. The farmer who relaxes any effort to possess it and to spread its influence is not true to the task which the full success of the industry places upon him. He is not true to himself.

The Silver Question.

The discount in silver is forcing its weight upon the farmer as oppressively as we anticipated two weeks ago. The farmer sells at wholesale and should not be forced to receive silver in greater proportion than they who sell at wholesale merchandise or manufactured goods. His settlements are generally for bulks of produce, and his loss is severe if he is compelled to receive a depreciated medium. These remarks are elicited by the following paragraph in the San Luis Obispo *Tribune*, of February 26th:

"The commission merchants of San Francisco are taking an unfair advantage of the dairymen of our county. For the consignments of butter and cheese sent them they return checks payable in silver coin, thus making the entire burden of the present enormous discount come directly out of the pockets of the producer. The loss to the dairymen of this county the present year, if this kind of dealing is permitted to go on, will amount to many thousands of dollars, which will all go to swell the profits of a class of men who, under ordinary circumstances, reap large returns from the productions of agriculturists. We were shown four checks this week, aggregating $509, four-fifths of which was payable in silver. The true proportion would have been $40. On this transaction there was a loss to the dairymen, and a corresponding gain to the commission merchant of $16.60. The dairymen are justly becoming indignant at this kind of practice, and are resolved to stop it if a remedy can be found."

There is, so far as we can see, but one thing to be determined before we re-echo the condemnation which the *Tribune* pronounces. If the commission merchants sell for gold and return silver to the producer it is equivalent to a fraud amounting to the discount rate on every dollar in a check. We know, however, that sometimes our merchants are able to make a better price per pound for the produce if they will accept the amount in silver. In cases of this kind the producer is made good by the increased price which his goods obtain. We are not aware how often this is done, but in our visiting of the markets we have heard special bargains made for silver payments.

This is a matter which the dairymen should certainly understand, and this is perhaps one of the advantages which they would possess if they could make their full force felt by a united voice. The only remedy which presents itself under the present condition is to ascertain whether the goods were sold for gold or silver, and if returns are made in silver at prices which the produce will bring in gold, then the dairyman will do well to change his agent. Commission merchants can be taught fairness, perhaps, by losing consignments. We cannot believe that upright men will descend to petty frauds like cheating a consignor out of the discount which they exact from customers. It is a plain question. If a merchant sells the produce only for gold (or silver at a discount,) he must return gold (or silver at its market rate). If he can get a sufficiently higher price to cover the loss on silver his books will show it. If he cannot explain the issue of silver checks, which entail a loss on his patrons, let some one handle the produce who can. The commission for the sale of goods is ample. In the matter of transferring the value from the consumer to the producer the agent has no right to take more. If he tries to take more let the producer see to it that he takes less in the future.

The Advancement of Dairying.

The Sacramento *Record-Union* reprints our article of last week concerning the advantage of a good display of our dairy products at the Centennial. It says among other things: "It is now believed that with the introduction of alfalfa as a general forage for dairy cows, California presents greater advantages for carrying on a profitable dairy business than any other State, and that our substantial progress in this branch of agriculture, as well as our advantages for greater successes in the future, should be properly exhibited and set forth at the Centennial. Steps looking in this direction are being taken, as will be seen by the article from the PACIFIC RURAL PRESS. We hope the producers will respond to the solicitations and exertions of the committeemen for this State, and set our dairy interests in their proper light before the world at the Centennial."

We fully believe that a good show of what can be done in the dairy line in this State would be very effective just at this time in furnishing the evidence which is required at the East. There is another way also of advancing the dairy interest of the State, which we propose in our dairy department this week. No one has a comprehensive knowledge of dairy practices in this State; nor can men singly advance as rapidly in an industry which grows and expands with skillful research and effort as they can by uniting experience and experiment. This has been the teaching of the progress of every Eastern dairy State. We commend the subject to the thoughtful consideration of the dairymen.

PRICES OF WHEAT.—We print on another page this week a valuable table, showing the prices which have ruled for wheat in this market for the last 11 years. The course of prices is something every agriculturist should study, for if he couple with the tabular record a memory of the conditions which prevailed from year to year, he has a fund of information which will aid him wonderfully in forming good judgment of what may be expected to recur under returning conditions in the trade. Study the table and preserve it.

A Process Which is Not Patented.

We have been thinking that possibly the prevailing method of dealing with the squirrel question is not the best available. It may be styled the condemnatory method. Its literature has been savagely denunciatory, and its practice has consisted wholly in acts which betray a belief that the squirrel is worthless or worse. It has been a policy of merciless crushing out. We are thinking that possibly this may not be the best way to encompass destruction.

The principle of our process, which is not patented, is based upon the question whether to attempt to crush is really the best way to destroy. Some things seem even to thrive under the crushing process. Truth, for example, is almost as sure to rise if stepped on, as nitroglycerine. Nations have multiplied and waxed strong under persecution. Thus the Hebrews gained strength continually, even under the heels of a race of Pharoahs. If we read history aright, it is rather those races which are puffed up and favored with unusual prosperity which become soonest demoralized and soonest pass away. It is those peoples which become most charged with conceit of their own value and greatness which become weak and easy prey to the invader. Can we learn a lesson from the history of men which will be of use in the contest with squirrels? Let us see.

Suppose, instead of regarding the squirrel as a curse, let us think of him as a blessing. Instead of denouncing him as worthless let us see if he cannot be made valuable. If we could puff him up with the idea that he is a thing to be diligently sought for because of intrinsic value, would not his end be near? Theoretically it could be reasoned in this way: Riches take to themselves wings and flee away; squirrels are riches, therefore they will take to themselves wings, etc. But, some practical man will say, a ground squirrel cannot fly. True enough; but all squirrels are not ground squirrels. There are squirrels with wings. Can we not, by that subtle power of breeding, which is improving and changing the form of all farm animals, succeed in the introduction of thoroughbred sires of flying squirrel stock, breed wings upon our groveling ground squirrels, and, this done, behold them fly away, full of the vanity of the new possession? This is only an incidental suggestion, and this; especially, is not patented. It is advanced for the common good.

But, seriously, we have been at work during the past week in the effort to ascertain if, indeed, the squirrel might not be found valuable in some way or other, and thus by making him valuable induce him to prepare the way for his own destruction. There are arrangements by which the animal can be entrapped alive, in his full strength and beauty. The trapper has then flesh and skin; are they of any value?

We have ascertained that ground squirrels are in certain demand in our city game markets. They are substituted for rabbits in eating-house stews, and the stew is said to be fine. They can be sold for 75 cents to $1.25 per dozen, if they are sent to market in clean sacks, with the entrails removed by making as small aperture as possible in the body. Some of our game dealers assure us that almost any quantity can be sold for the above prices. This, then, establishes a small point of value in the squirrel.

There is another direction in which to seek value in the entrapped squirrel, and that is the skin. So far all efforts to turn the skin of the squirrel to useful account have failed. The manager of the California glove company, while admitting that the hide is fine, states that the size is so small that two gloves cannot be cut from the same skin, and there arises a difficulty, therefore, in getting a pair of gloves of even weight. He says that he was offered a thousand for the taking, but was sure he could not use them. He says, also, that the New York market can find no sale for the skin. He is not aware that any attempt has been made to discover whether the material can be used in any of the diversities of European manufacture.

This is a point which seems to us worthy of investigation. We should like to know whether, in some of the varieties of French manufacture, there cannot be found a use for California squirrel skins. We commend the question to the attention of our Parisian exchanges. We should be pleased to have them inquire into the matter for us. If there is any possible way for their use, such as would warrant a trial, we can promise to send forward a sample lot of a thousand skins if need be, to have them make the test of their value. Will some of our French friends oblige us by investigating the subject as they may have opportunity? Another possible value in the squirrel is the tail. A paragraph concerning this point will be found in another column this week.

We recur, in closing, to the original proposition. If the squirrel can be made of some intrinsic value, there will arise a new incentive to the war of extermination; a war which makes some show of paying as it goes.

STEEL BARBED FENCE WIRE.—The Glidden fence wire is being introduced into various sections of this State. We have lately heard of 30 miles of this wire being adopted by H. P. Livermore, of S. F., on his farm in Kern Co. This purchase was made of Jones, Givens & Co., of Sacramento (the agents for this coast), after judicious experiments by the purchaser.

Queries and Replies.

Onions and Lettuce.

EDITORS PRESS:—In your valuable paper of February 12th I saw an item under the above heading. Mr. G. W. M. speaks of Mr. R. W. Wilson, an experienced seed grower from the East, having planted several pieces of land to onions of the yellow Danver variety, early last fall, before the rains commenced. Will you please answer through your paper the following query: Will the seed from onions planted out in the fall, before the rains commence, be as likely to produce onions that would be good keepers as onions raised from seed produced by onions kept until the first of March, and only those planted that were not sprouted at that time? GRANGER.

Will some reader of the RURAL who has had special experience on this point furnish us with a reply?

Various Points.

EDITORS PRESS:—I am glad you have opened a "Query and Reply" department in the RURAL PRESS. I have a few questions which I would like to see answered:

(1.) Will oranges, lemons and limes planted side by side mix their fruit, similar to vegetables or melons, squashes, etc.?

(2.) Is it necessary to graft or bud the Mexican lime in order to insure good fruit?

(3.) Will lemons or limes do well budded on orange stock?

(4.) What is the opinion of the best growers of the above fruit about the necessity of grafting any of said fruit in order to be sure of good fruit? Some of the nurserymen at Los Angelee claim that it must be done. I understand that other growers of oranges at the same place say that it is all nonsense. Some of the best oranges they have grow on seedling trees.

(5.) My land is a light sandy soil with a gravelly subsoil, new land. Will it pay me to haul wood ashes two and a half miles to put on it to grow the above kinds of fruit? There are two or three steam mills in town that I think would be glad to have their ash heaps hauled away. S. WHITMORE.

San Diego, Feb. 8th, 1876.

We will reply to our querist's questions briefly, and according to our understanding, not with the idea that our answers are conclusive, but with an invitation to our horticultural readers to express themselves more fully on the subjects mentioned according to their experience or observation. We reply to the first query, No.

(2). Although it may not be necessary to graft the Mexican lime in all cases, it will be found profitable to do it because of the time gained in fruit bearing.

(3). Lemons and limes will do on orange stock, but not so well as on their own stocks.

(4). To be certain of propagating a desirable variety it is surest to graft. A seedling may possess the qualities of the parent tree, or it may not. We doubt not *some* of the best Los Angeles oranges are from seedling trees, but whence the excessive amounts of poor oranges which are brought to our markets? We have noticed of late several complaints concerning grafted orange trees in Los Angeles. Will some correspondent send us a true acoount of the matters?

(5). Wood ashes are counted among the best orchard fertilizers. Whether the effect of ashes on our querist's soil would be beneficial or not he could best determine by experiment. They would certainly be good if applied with manure. The ashes which are mentioned would be exceedingly cheap if the conditions for their use are right. Will our readers furnish us with their experience in the use of ashes?

Queries from Colorado.

EDITORS PRESS:—I wish to know (1) what time in the year is best to plant cedar trees or any of the common evergreens, and (2) will your fruit trees be better, in your opinion, to plant here in our climate than those brought from the States? (3) What is the name of those large pears which we get from California? They only cost us 50 cents per pound here. We have to irrigate everything, and there is no one that I have ever heard of telling his experience through any paper, consequently we are plodding along in the dark. I am taking seven different papers, three of which are published here in the Territory, but your RURAL PRESS I prize above them all. There is enough in every one I get to pay me for the subscription price. Your article on "Winter Irrigation," is one, and there are hosts of others I could name. Our soil here is rich and productive. It has all been formed by washings from the mountains, and when once put under ditch will produce fair crops. If we could only get to raising our own fruit, it would be a great help; I have paid 25 cents per pound for your grapes, and as high as 50 cents for other kinds of your fruit, which, after being shipped so far lose a great deal of their flavor. E. R. SIZER.

West Las Animas, Bent Co., Colo.

(1.) The best time to transplant evergreens is just before the sap starts in the spring. Generally the best time to transplant a tree is when the sap is nearest dormant.

(2.) We can only say that our California grown fruit trees have been shipped to Colorado and favorable reports have been received. We are so informed by our nurserymen. Whether it is best for a Colorado man to buy trees here involves several considerations, one of which is the cost of transportation East or West. Our querist will have to decide this for himself.

(3.) There are several varieties of large pears shipped eastward from this State. The Bartletts go in September. Other varieties follow, namely, the Beurre Hardy, later still, the Vicar of Winkfield, Easter Benrre and what is known as the Pound pear.

ON FILE.—"Fruit Ladder," J. B.; "Cherry Culture," San Jose; "No Horses," C. M.; "Straw Burning Engines," J. W. R.; "Dairy Experiments," H. C.; "Poultry Matters," M. E., Jr.; "Salicylic Acid as a Cure for Foul Brood," J. P. B.; "Early Plowing and Late Sowing," Rancher; "End Shake," with illustion, H. C. B.; "A Sister's Home Talk to Patrons," P.; "Windsor Grange," E. L. L.; "Watsonville Grange," M. E. T.; "Alhambra Grange," Secretary.

A Mariposa Lily.

California figures with credit in the issue of the London *Garden* for February 5th, 1876. This peerless horticultural journal has lately introduced the feature of colored plates of fruits and flowers, and the plate in the latest issue received is a Mariposa lily (*Calochortus venustus*). Familiar as we of California are with this beautiful flower, it is pleasant to have this renewed assurance that its charms have won it distinction abroad. The Californian plucks it thoughtlessly or admiringly in its wide reaching habitat on this coast; the Londoner propagates it carefully, and makes it the subject for engraving and color printing.

We have said our mountain ramblers pluck it thoughtlessly. Very few except the skilled botanists have any idea of what a history this plant can boast. There are records of its discovery dated back even to 1814, when Pursh established this liliaceous genus from a single species, *Calochortus elegans*, found at the headwaters of the Kooskoosky, in Idaho. Since that time the genus has extended, under the diligent search of the botanists, until 20 varieties are known and described.

The plant from which the *Garden* takes its engraving, is now flowering in an English garden. The truth of the representation to nature is plainly attested by the quickness with which a Californian recognizes it. The common ejaculation of those to whom we have shown the picture has been: "Oh, how many of those I have gathered in the mountains."

The *Garden* makes the "Mariposa lily" the theme of an extended analytical review, which we doubt not will be read by many Californians with pleasure. Our limits prevent the reproduction of it in full, but to show how the fame of this quiet plant antedates all the later discoveries which have given us a name, we quote the following paragraphs of the

History and Distribution

Of the plant, mentioning first the "Nova Genera" (1815), of Humboldt, which include two Mexican species of the *Calochortus*. The *Garden* says:

The unfortunate David Douglas furnished the next link in the history of the genus; indeed, he discovered, on his different journeys in California and British Columbia, nearly half of the species known at the present time. The first batch sent home by him included *C. macrocarpus* and the yet more beautiful *C. nitida*. These species were probably received in 1825, as we find a paper relating to them by Douglas of that date in the seventh volume of the "Transactions of the Horticultural Society," accompanied by colored plates of both species. *C. macrocarpus* is there said to grow in undulating, dry, barren ground, around the Great falls of the Columbia river and on the summit of the low hills between them and the Grand rapids, 200 miles from the ocean. They were successfully raised in the society's gardens and are stated to be quite hardy, as no doubt they are, being both natives of the northern limits of the genus. The next batch sent by Douglas was still more important, for it included *C. splendens paniculatus, pulchellus*, and the exquisitely beautiful *C. venustus*, of which we give an illustration to-day. These were raised from seed in the horticultural gardens between 1831 and 1833, and Mr. Bentham described them in the first volume of the new series of the society's "Transactions." About the same period, or shortly afterwards, figures of them and several other species appeared in the "Botanical Register" and Sweet's "Flower Garden," references to which will be found in the descriptions of the several species below, translated from J. G. Baker's paper "Revision of the Genera and Species of the Tulipæ," in the seventh volume of "The Journal of the Linnean Society." Not to weary our readers with too much detail on the history of the introduction of the species, we may at once say that those introduced by Douglas seem to have disappeared very quickly from our gardens; and it is only within the last few years that they have been reintroduced by M. Roezl and others, together with several new species and varieties. Of the 22 species at present known 13 are, or have been, in cultivation. As it is the hardier species that are the most desirable for cultivation, British Columbia and Oregon should be visited for additional species. *C. apiculatus* and *Lyalli*, collected by Dr. Lyall at a considerable elevation in the former country, are not yet in cultivation, and doubtless other species would reward the explorer. The geographical area of the genus extends from about 15° to 50° north latitude, from Mexico through New Mexico, California, Utah and Oregon to British Columbia. One species, *C. elegans*, is reported from Missouri and Oregon (Geyer), otherwise they appear to be confined to the western mountain ranges of North America. From their great range of latitude it will be understood that the species are not all equally hardy, for, although the Mexican species are found at a considerable elevation, as indicated above, so are some of the more northerly ones; *C. Lyalli*, for instance, is found at an elevation of 5,800 feet in the mountains of British Columbia.

CALIFORNIA SQUIRREL.

Bags and Tonnage.

There are no two matters of greater importance to the California grain grower than bags and tonnage. Who is studying the subject and endeavoring to possess himself of the profit which lies in wise action concerning it?

It is not for us to advise our readers the advisability or otherwise of securing bags or tonnage. There are no matters so delicate in our agricultural condition and practice. But the delicacy or the difficulty of the question should not deter our grain growers from considering it with all the light which their combined intelligence can throw upon it. Wise judgment and prompt action result in larger rewards for industry. We can but admonish our readers of this, and urge them to think and act.

There is a splendid field for co-operation among our farmers in these matters. It is true, in the matter of tonnage experience has been most hazardous. One of our leading farmers told us the other day that although his best judgment told him that now was a favorable time to secure tonnage, he dared not do it because his experience had been disastrous. In bags, he said he had made his purchase two months ago, and could already count a good percentage of profit. We believe that all our grain growers could add to their receipts by looking into these questions and deciding according to their combined wisdom. Bags are now advancing in price and we are informed by those who have tested the market that there seems more of a disposition to sell small lots than large. If the crop should be such as seems now in every way assured, of course the best selling time will be when the crop is ready for the harvest. Do our readers think that will be the most favorable buying time?

THE USEFUL MANCHON.—In South Australia, Mr. Wurm has made many experiments in silk worm culture. The mulberries comprise 1,000 rooted trees, and a few thousand cuttings, to feed from 40,000 to 50,000 silk worms, from which upwards of that number of cocoons are expected. The sericultural practice of this establishment is based upon M. Roland's essay, and includes the use of the manchon, for which the trees have been dwarfed. The frames used by Mr. Wurm are of galvanized netting, 49 holes to the square inch, and they are in use almost continually, being constructed to do for all the processes required. For instance, they are employed in drying the Zante currants in February, then the Sultana raisins a month later, followed by the Muscatel about April. The olives then come in, and require to be kept apart to prevent fermenting while waiting to be crushed. For this purpose the frames are used, and then follows the silk worms, and so on.

Agriculture in the Legislature.

Among the measures now before the Legislature we find the following of especial interest to rural readers:

Waste of Waters.

An act is before the Assembly to regulate the waste of subterranean waters, which provides that flowing wells must be checked when the water is not being put to some use. It provides that it shall be the duty of the roadmasters to examine the artesian wells within their respective districts, and for that purpose may, at all proper times, enter upon the premises where such wells are situated, and it shall be their duty to institute or cause to be instituted criminal action for all violations of the provisions of this act, or for all public offenses committed within said district. The act as at present framed is made to apply to Santa Clara and Los Angeles counties.

Shut the Gates.

There has an act passed the Assembly to prevent persons passing through inclosures and leaving them open; also, to prevent hunting upon inclosed lands without permission of the owner or occupant. The following counties are exempted from the action of the bill: Los Angeles, San Diego, Nevada, Sutter, San Benito, El Dorado, Del Norte, Colusa, Yuba, Humboldt, Amador, Tulare, San Luis Obispo, Plumas, Lassen, Yolo, Siskiyou, Modoc, Shasta, Trinity, Sierra and Placer.

New Road Law for Alameda County.

The Alameda county Board of Supervisors, Monday, adopted the new road bill proposed by District Attorney Moore, and made and carried a motion to the effect that the Alameda delegation in the Legislature be requested to have it enacted into a law. The bill contains 51 sections; it divides the county into six road districts, in all respects the same as the townships; it gives the supervisors power to levy a property tax of not more than 25 cents on each $100 on all property outside incorporated cities, to be levied, assessed and collected by the same officers who attend to other taxes, and a road poll tax not to exceed $2 upon all subject to State poll tax, and to be collected by the same officer. These collected taxes are to be apportioned to the district road fund of the district in which they were collected. The road year is fixed from July to July, and after the first Monday in July the poll tax becomes delinquent and is to be thereafter $3. All moneys received from road poll taxes in incorporated cities to go to the road district in which such city is situated. For the payment of the present indebtedness it provides for two annual installments, to be raised by special taxation between July, 1876, and July, 1878. It provides for the opening of private roads at the expense of those benefited. When the right of way is given for a road the ground shall be recorded as the property of the county. Three dollars per day is allowed to overseers. No bridge shall be built or repaired when the cost will exceed $300 without a special order of the Board. Bridges built or repaired at a cost of $1,500 or more may be paid in whole or in part out of the county general fund. The county is made responsible for the condition of all bridges and roads outside of incorporated cities. It authorizes the Board to encourage the planting of trees along public highways, and repeals all other acts relating to the roads of Alameda county.

Santa Ana County.

A bill is before the Assembly, introduced by Mr. Lambourne, to create the county of Santa Ana out of the southeast part of Los Angeles county. The proposed county is to form a part of the 17th judicial district, and to be attached to the 2d senatorial district, and to be entitled to one member of the Assembly. The boundaries are thus defined: Beginning at a point in the Pacific ocean three miles southwest of New San Gabriel river, proceeding up said river northeast to its point of divergence from Old San Gabriel river; thence in an easterly direction along the ridge of the Puente range until it intersects the boundary line between San Benito and Los Angeles counties; thence along said boundary line southeasterly until it intersects the boundary line of San Diego; thence along said boundary line southeasterly until it reaches the Pacific coast; thence in the same direction to a point three miles in said Pacific ocean; thence in a northeasterly line parallel to said coast to place of beginning.

Tree Planting.

A bill by Assemblymen Berry proposes to amend section 4080 of the political code, relative to cultivating shade and ornamental trees, by reducing the amount which supervisors are authorized to pay to persons planting trees on highways after four years' growth of the trees, from $1 to 50 cents.

Wide Tires.

The act providing wide tires for road wagons in Santa Clara county, of which we made mention last week, has passed the Assembly.

The Squirrel and the Owl.

In order to get the start of any of our wise readers who may penetrate the depth of our article on the squirrel question in another column, we print on this page a picture to show that our position is well taken. Our process may be represented by the owl. It has already gained possession of the squirrel's stronghold, and nothing remains for the squirrel to do but to meet the issue squarely or leave the locality. It is seldom purely theoretical agriculture meets such speedy acknowledgment at the hand of nature.

(Continued from Page 147.)

the attention of the many dairymen in the Eastern States who are meditating immigration.

Fifth. The general improvement of our dairy stock and dairy produce which will follow a full discussion of practices here as it followed similar discussion in the older dairy regions of the East.

Sixth. A full and careful examination of the present methods of marketing dairy produce to discover whether the producer secures the full reward of his industry.

How Organization can be Effected.

The way to organize, as with Horace Greeley's resumption, is to organize. All there is to be done is to express a disposition to form a dairymen's association, and then form it. In order to ascertain the disposition of the dairymen, we make the following proposition: Let every dairy reader of the RURAL PRESS, when he has read this article, send us word at once by letter or postal card, stating whether he approves the idea of forming an association for the purpose of advancing the dairy interest of the State, and mentioning some of the reasons why he thinks it will be a useful organization. Let him give his name and postoffice address, and mention any of his neighbors whom he thinks are of his mind. After a sufficient number of names are received we will send to each a copy of a formal call for a meeting at some convenient time and place, and when signatures are received to the call we will publish it in the RURAL PRESS, so that all dairymen may be informed of the movement and share in it if they will. All that will then remain to do will be to attend the meeting and start the association at its work.

The first thing to do, dairy readers, is to write us what you think of the proposition. Let us hear from you.

HORTICULTURE.

Cherry Culture.—No. 4.

Pruning, Continued.

I keep a small top and a large feeding surface, so that when my trees bear fully they are able to develop the fruit to a good size for market, at the same time making a good growth in wood. Even in a dry year I let every bud grow, from the ground to the head or main branches of the tree. I do not let them make long branches. I first pinch them when about six inches long, and if there is moisture enough to start a second growth I pinch them again. If I do not they will ripen up and go into fruit. I speak now of the branches or old snags, as they are termed, below the main head of the tree, cutting them back to the first wood bud in the spring. They will therefore gain about three inches in length every year. As I said before, the pinching process will come under its proper head. The main object here is shade, which is indispensable in our hot, dry climate; also, down on these old snags you can pick your best and largest fruit. So you see here is some profit which you lose by the naked trunk system. But I want the shade, fruit or no fruit. This is the reason why I was so careful in the nursery not to have any buds rubbed off near the ground.

Objections to this Method.

But on this part of the subject those of the old school make several objections. The first is that these old snags or branches rob the top of the tree. The second is that you cannot plow close enough to the trees. The third is that the trees do not look so neat and pretty as a clean trunk does. Now, brother cherry grower, I speak from a practical point of view and hard earned experience. And before you read any farther please stop and use your thinking faculties for a few moments and the fog will soon clear away and all the objections with it.

Objections Answered.

Now for the first objection. I will admit that if you do not do anything to check the growth in wood these branches will rob the top of the tree; but, if you will keep them closely pinched, this will not rob it but will add greatly to its rapid growth. It is because these branches receive the first flow of sap, and as a matter of fact they start first and grow very rapidly. They are now robbing the top, but when they are six inches long they are pinched back and kept there and not allowed to grow any more that season. Where is the robbery?

Now for the second objection. As for plowing, I do not plow my orchard at all. I use the cultivator altogether, and if I can get as near as two feet and a half or three feet, that is as close as I want to get, and that is as close as the side of the horse will let you get. I prefer the spade to do close work, and then I know what I am doing. As to the third objection, I find that it is one thing to please the eye and quite another to please the pocket, and so far as beauty is concerned I think they look a great deal prettier. In the summer time they look like evergreen trees. But it matters very little how they look if they bring in the dollars and cents. And this is quite an item to think about. A tree eight years old that has been properly attended to will pick three pounds of fine large fruit which will bring fifteen to eighteen cents in the orchard. Take one thousand trees, or less if you please, and see what you have got. You have enough to pay for your trees and all the expenses of the orchard. So you see that the objections are altogether in my favor. And furthermore, I have found in all my experience and travels that there are none so blind as those that will not see. Beside all this, we cannot follow the same system of training that they do in the Eastern States, they can there train their trees with long, clean trunks, while we have six months of hot, burning sun, and must head our trees low down and protect the trunks from the reflections of the sun's rays upwards against the bark.

Pinching

Should commence when the lower shoots are about six inches long, and be followed up closely all through the growing season. Those on the trunk should never get longer than eight or ten inches, under any circumstances, and, as I said under the head of pruning, I pinch everything short below the head of the tree. In the top, everything that is not intended for leaders is watched closely and kept back, thereby preventing exhaustion by overgrowth in wood; and keeping this overgrowth back in the tree assists in developing fruit buds and fruit spurs, and at the same time increasing fruit-bearing surface, which is the main object in view. All the branches that are kept back in this way will ripen up and produce fruit the next year. But it let alone they will not go into fruit the next year, but all the long, slim twigs will most likely die of their own accord, thereby losing the branch as well as the fruit which would have been produced by pinching. As I said before, I pinch everything in the top but the leader, which I let have its own way all through the growing season. In this operation we must stop and exercise our judgment and thinking faculties. Pinching will be continued in my next.

Cherry Vale, San Jose, Feb. 7th, 1876.

Oil of Roses and its Preparation.

EDITORS PRESS:—An article in the PRESS of February 12th on this subject states that three pounds of the flowers will produce one pound of the oil. This is a great mistake; and, as the article in question is rather incomplete, I thought I would write what little I know about it for the benefit of the many readers of the PRESS.

Oil of roses, commonly called attar, otto or essence of roses, is prepared on a large scale in Turkey in Europe, especially in the Balkan mountains, in Egypt, Persia, Cashmere, India and in small quantities in the south of France. The yield of the oil is very small, 100 pounds of fresh rose petals yielding only three drachms of the attar (vide U. S. Dispensatory).

The smallness of the yield will account for its high price, which varies from $10 to $15 per ounce, according to the quality.

The Mode of Preparing the Oil

Seems to vary somewhat, according to the locality in which it is made. In the south of France small quantities are made by distilling the petals of the rose with water. The oil concretes and floats on the surface of the water when it cools. In Macedonia it is said to be prepared by crushing the petals in mills, expressing the fluid part, filtering it and then exposing it to the sun in small vessels. The oil gradually collects on the surface of the liquid and can then be easily removed. In Damascus and other parts of Asia Minor the oil is prepared by dry distillation. The buds, being collected before sunrise, are placed in a glass retort and the distillation effected by a salt water bath, care being taken so to regulate the heat as not to scorch the petals. The water of the fresh roses and their oil come over together, and the latter, floating on the top, is separated in the usual mode. Various substances are used in adulterating this valuable product, consisting principally of oil of sandalwood, oil of rose geranium and spermaceti.

Can California Produce It?

And now I come to the principal object of this article. Can this oil be successfully manufactured in California? I think that it can, although I have never heard of its being attempted. The climate appears to me to be exactly suited for it, for it is a well known fact that roses thrive here better than in any other country in the known world, and especially those few varieties which are used in making the oil. I intend to experiment on this oil this coming summer, if I can find the time, and shall most certainly give my experience in so doing to the PRESS. The preparation of essential oils and perfumes is one of the leading industries of France, and I see no reason why California, with a far superior climate and soil, should not share in it.

J. J. HYDE.

Santa Clara, February 19th, 1876.

TO DETECT LEAKS IN GAS PIPES.—Apply soapsuds to a suspected leaky joint in the gas pipe. The formation of bubbles will show any escape. This is safer than trying the joint with a lighted match. If the leak occur in the branch of a bracket or chandelier, it is repaired by soldering with plumber's fine solder; if it be a very small one, heat the place first with a spirit lamp, and fill the aperture with cement.

USEFUL INFORMATION.

Refrigerating Railroad Cars.

Any practical method for refrigerating a railroad car so that the temperature may be kept constant at about 40° Fah. will be of immense service for transporting fresh meats, fruits, etc. Efforts have been made to accomplish this by packing ice in the car with the fruit, etc., and trusting to an ordinary ventilator, operated by the speed of the train, for a constant supply of air from the outside to be cooled by the ice before coming in contact with the fruit. But this method has been found very uncertain and expensive, by reason of the large amount of ice consumed by the constant inrush of warm air.

A new plan has recently been adopted which is said to be meeting with very good success, and which is described as follows: The car is provided with a fan-blower, driven by one of the axles, by means of which air is forced over the ice and thus reduced to a low temperature. This chilled air is distributed among the fruit boxes through a large perforated pipe laid along the bottom of the car. After it has thus circulated among the fruit, it returns to the blower, and is again forced through the apparatus. By this means the atmosphere of the car is said to be kept at the desired temperature with a very small consumption of ice.

TO COAT NAILS WITH TIN.—It often becomes desirable to coat nails with tin when used for certain purposes, as for picture hanging, etc. This may readily be done by any purpose in a very inexpensive and simple manner, as follows: Put half an ounce of powdered tin (which may be procured of any operative chemist) into a common Florence flask; pour on about two ounces of concentrated muriatic acid, and boil over a spirit lamp until the tin is dissolved. When cool, pour into any convenient vessel, and dilute with about an equal bulk of pure water. Drop in the nails required to be coated, holding the vessel so they may all fall to one side. Immerse a piece of sheet copper into the solution, as far apart from the nails as possible, and connect it with the latter by means of a piece of copper wire. The effect of this arrangement is the development of a voltaic electricity, which causes a rapid decomposition of the fluid, and the deposition of tin on the surface of the nails. After being subjected to this treatment for about an hour, the nails will be found to have received a thick coating of metal, and may then be removed from the liquid, dried and polished. Steel pens may be coated in the same manner—a process which effectually prevents their rusting. They may be coated entire or merely the nibs may be subjected to the operation.

CASTING STOVE PLATES.—As the stove plates of to-day are more or less elaborately ornamented with finely relieved patterns, having sharp corners, and oftentimes with extremely fine lines of depression and elevation, it becomes necessary to use the utmost art and care to have the work as near perfection as possible. To accomplish this, and give the finest possible surface to the casting, beeswax is applied to the patterns. This is done in the following manner: The pattern must be heated till it is hot enough to melt the wax and not burn it. Then apply the wax by rubbing it here and there over the surface of the plate; a small quantity only is required. After which, and while the wax is in a liquid form, give the casting a thorough brushing with a new shoe brush; this will spread the wax uniformly over the entire surface and at the same time remove all the surplus wax. Then allow the casting to cool, and, with a second shoe brush, give it a thorough brushing, and you will have a surface to your pattern that will give you a mold with as sharp corners as your pattern.

THE HAIR OF SQUIRRELS' TAILS FOR BRUSHES.—A useful hint in regard to the utilization of squirrels' tails is contained in the Chicago *Field*, in the form of an extract of a letter written by Mills Brothers, manufacturers of brushes in Brooklyn, N. Y. They state a fact, which is perhaps known to few of our readers, that the so called camels' hair brushes are made from the hair of the tails of squirrels, the demand for which is increasing very rapidly. It is a question, however, whether the tails of the California squirrels—animals extremely destructive to the crops in this State—will answer the purpose, as they are not true squirrels, but a *spermaphile*, or ground squirrel. The hairs on the tail of this animal, although long, are coarser than those of the tree squirrel, and probably less desirable. There would, however, be no difficulty in obtaining a sufficient supply of the tree squirrels, such as the red, the gray, the fox squirrel, etc., throughout the various parts of the country, to meet a very large demand.

CHARCOAL IMPROVED BY AGE.—It is well known that mineral coal deteriorates rapidly by exposure to the atmosphere, through the loss of inflammable gases and the slow oxidation of its other constituents. But with charcoal the reverse is true. Charcoal improves with age by the mechanical absorption of oxygen, which does not combine with it until sufficient heat is applied to burn the coal, at which time the excess of oxygen adds intensity to the flame, and of course produces more heat than would be given off by the coal if burned immediately after being made.

HOW TO BUILD A LIME KILN.—Patrick Egan, of Cheshire, Conn., who has had much experience in that direction, sends the N. Y. *World* the following in regard to building lime kilns: Do not use freestone, but build of pure limestone; no matter if they are three or seven feet long, put them all endways across the wall; then every time the kiln is burned three or four inches of the kiln will burn off as good lime as any in the kiln. Sandstone will color the lime and spoil it for perfect use. Build only one foot wide in the bottom for 16 inches high; then let it run wide when about six or seven feet high; it will be 10 feet wide and 13 long; then it is brought in again to about 9 by 11 on the top. The narrow place at the bottom is for a grate, where the ashes can be removed each morning. The grate is made of limestone, placed about three inches apart; over this is an arch for the wood two feet and six inches high. It will take from six to eight days to burn from two to three hundred barrels. This correspondent always burns with peat.

STEEL AND IRON WIRE ROPE.—Round steel wire rope will bear more than double the weight required to break iron wire rope of similar diameter.

What is Life?

At a recent session of the American dental convention, in the course of some remarks upon microscopic investigation, Dr. Atkinson said: "We shall never know anything about life until we go to the bottom of the matter of function. There is a substratum denominated 'atom,' which is the least manifestation of life that we know of. Atoms are endowed with life—they can't be killed. We have been told that the molecular life of our food is killed. A statement like that is either a *lapsus linguæ*, or it shows an utter misapprehension of the subject. Atoms coalesce and manufacture molecules; plasma is an aggregation of molecules. Something must die that something else may live, throughout the range of organic life. We have crystalline life, and below that granular life, molecular life and atomic life. A crystal is regularly arranged granules that are regularly arranged molecules that are regularly arranged atoms.

"The doctrine of inorganic or azoic existence will not do in this day. If we wish to know the origin of life, we must define the territory we are speaking of; when the conscious life has left the body, we have organic, cellular and molecular life left, and that is the food which we like to suck from the beefsteak. It is simply a polarization and depolarization of atoms that constitutes molecular mass. We cannot disrupt molecules without reducing to ultimate atoms; there is no such thing as death. Matter means mother. Every one who has followed me knows I have given as complete an answer to the question we are discussing, as that two and two are four. When the blessed love of the Father of Light comes in and illumines us, we are endowed with the capability to perceive. The doctrine that *omne vivum ex ovo* is pretty old, as old as Harvey. If the protoplastic mass is an egg, that is true; there are no bricks without mud, there is no loaf without dough. What do Bastian's investigations prove? Only that these points are so small as not to have been detected before; they do not prove that the germs are not essentially eggs. What is an atom? It is in size about the two hundred millionth part of an inch. If one side of it is warm and the other cold, there is polarization and depolarization, and that brings it to a point where freezing begins, and that is crystallization. When we have investigated deep enough, we shall be prepared to understand the processes, and they will be as plain as the freezing of water."

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

50 Visiting Cards, with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS? Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.- Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

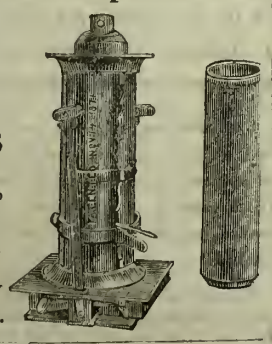
We respectfully invite the attention of wool growers to our fine stock of Cotswool Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-eow-tf Watsonville, Cal.

Office of Drain Pipe Works

S. W. Corner Sacramento and Montgomery Sts., S. F.



DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

E. T. MENOMY

Proprietor.

H. K. CUMMINGS. 1868. H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1868.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-1y

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-8m 43 & 44 Cal. Market S.F

DURYEA'S SATIN GLOSS STARCH

AND

DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE

MESSRS. DURYEA OVER ALL COMPETITORS FOR THE "PERFECTION OF QUALITY OF THEIR GOODS"

The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly super or article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast,

San Francisco, California.

W. R. STRONG. Seedsman. Established 1857. 1876. ROBT. WILLIAMSON, Nurseryman, Established 1865.

SEEDS. W. R. STRONG & CO. TREES.

S. F. Office, 418 & 420 Clay St., Sacramento Office, 8 & 10 J St., Nursery Grounds, Sacramento Co.

GREAT REDUCTION IN SEEDS.

Seeds heretofore retailed by all dealers at Ten cents per paper, we will now furnish at Five cents. They will be forwarded by mail, postpaid, to any part of the United States without extra charge (except on heavy Seeds, such as Peas, Beans and Corn; on which postage will be added). This will cover Vegetable and Flower Seeds. Also, a great reduction on all higher-priced papers. Money should always accompany orders, and may be forwarded in registered letters, or by postal orders at our risk. Our assortment is probably the finest on the Coast.

Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, W. R. STRONG & CO., House in San Francisco, STRONG & WILLIAMSON.

ALFALFA a Specialty, and furnished to the trade, or in small quantities, at lowest possible rates.

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

LEVI STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—cost nearly $245,000. Will be kept First-class, at $2.00 per day, and less by the week or month.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,

San Francisco.

H. H. H.

HORSE MEDICINE,

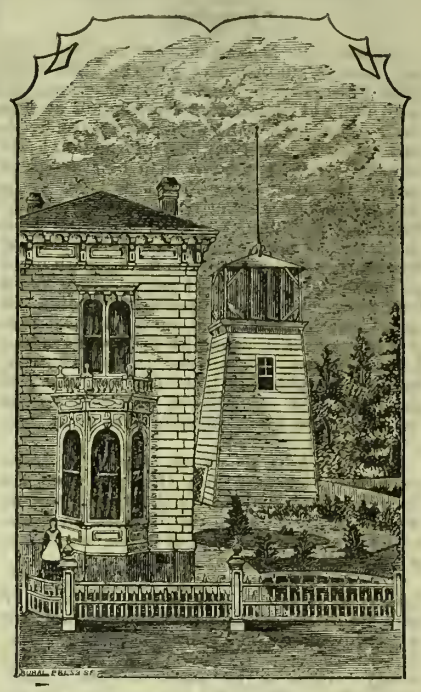
D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

THE TURBINE.



Simplest, Cheapest, and Most Durable.

The Inventor of the Dexter Windmill has made new and useful improvements in Windmills, patented March 16th, 1875, and now feels confident of having the SIMPLEST, CHEAPEST, MOST DURABLE, and

ONLY PERMANENT WINDMILL

IN THE WORLD.

SIMPLEST, because it is less complicated; CHEAPEST, because it never needs repair, standing on a firm foundation; MOST DURABLE, because it is all under cover, and has less rigging to get out of order; ONLY PERMANENT, because the only Windmill in the world that has never been injured by storms. Hundreds of people, who have thought the Dexter perfect, will be glad to observe the SUPERIORITY OF THE TURBINE over all predecessors. Although much improved, the price of mills remain the same as formerly. Persons who study their own interest will investigate the TURBINE before purchasing any other.

Territory for sale outside of California, at reasonable rates and easy terms.

Mills built to order of the best material, and at the shortest notice, by Kimball Manufacturing Company, corner Fourth and Bryant streets, San Francisco. Any orders sent to their address will receive prompt attention.

☞For further information regarding Mills or Territory, send for New Circular. Address,

A. H. SOUTHWICK,

P. O. Box 1385, San Francisco; or P. O. Box 25, Oakland, Cal.

mrl3-1am-bp

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't	I. G. GARDNER...V. Pres't
G. P. KELLOGG, Treasurer	A. W. THOMPSON.....Att'y
I. C. STEELE.....San Mateo	CHAS. LAIRD, ...Salinas
A. WOLF.....Stockton	A. D. LOGAN, ...Colusa
W. H. BAXTER.....S. F	G. W. COLBY .....Butte Co
J. C. MERRYFIELD, Dixon	C. J. CRESSEY, ..Oakland
A. B. NALLY....Santa Rosa	E. W. STEELE, S. L. Obispo

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....	$8,026,378.00
TOTAL PREMIUMS.....	63,306.49
LOSSES PAID.....	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT

H. E. HILLS.....MANAGER

Directors.—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, O. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS COMPANY, 609 Sacramento St., S. F

(Continued from Page 149.)

Oregon.

PROSPECT IN WHEAT.—*Oregonian*, Feb. 19: Any estimate of the surplus of the next crop must of necessity be vague and uncertain, and we would not even hazard a prediction at this time. The last fall and winter were so nnfavorable for seeding that our best information leads us to believe that not more than half as great an area was sown before New Year's day as in the corresponding time the preceding season. Since that time there has been bnt little done in the way of sowing, although if the present fair weather should continne for a month or so an immense acreage will yet be seeded and a full average crop may be realized. Should the spring prove nnfavorable, there will be a surplus of the next crop smaller than we have had for three years. We are led to believe from information obtained from different parts of the State, that the present prospects do not justify as great a surplus as in 1875 by at least 40,000 tons.

BUTTER.—A large wagon, drawn by three yoke of cattle, came into Olympia from the Chehalis valley loaded with about 1,600 ponnds of nice, fresh butter, on Saturday. The whole load was qnickly disposed of to the merchants, at 37½ cents per pound.

CATTLE.—On Thursday of last week, C. W. Young, of Eugene, shipped to Olympia 17 head of beef cattle, which would average in weight abont 800 pounds each, and were probably the best lot ever shipped from Lane county. Three of the largest weighed respectively 3,332, 1,684, and 1,648 ponnds. He received for them $609.06, being an average of $41.18 per head. There is always a market for fat cattle, and not a farmer in the county but could ship at least one car load each year.

Sales of Farming Lands.

The Pomona Sale.

According to the Los Angeles *Express* of February 26th, the sale of lands at Pomona excited wide interest and was well attended. After the place had been inspected by the visitors, Mr. E. W. Noyes, the anctioneer, proceeded to his work of selling off the outside lots. The farming lands disposed of on the first day brought an average of $64 an acre, and some $18,000 or $19,000 worth were sold in all. Below we give the first day's sales:

E. Palomares, lot 4, block 67, $76; E. Laventhal, lot 1, blk 67, $71; J. A. Scott, lot 10, blk 67, $50; J. H. Jones, lot 8, blk 54, $60; J. Bridger, lot 2, blk 33, $75; J. Bridger, lot 3, blk 33, $75; J. Bridger, lot 4, blk 33, $75; J. H Jones, blk 58, 2½ acres, $250; W. B. Lawlor, blk 161, 10 acres, at $75 per acre, $750; M. A. Marshall, lot 1, blk 178, 5 29-100 acres, at $50 per acre, $264.50; B. C. Truman, blk 164, 10 acres, at $76 per acre, $760; P. C. Tonner, blk 166, 10 acres, at $75 per acre, $750; P. C. Tonner, blk 187, 40 acres, at $75 per acre, $3,000; W. B. Lawlor, blk 222, 40 acres, at $71 per acre, $2,840; Wm. Allison, blk 224, 40 acres, at $60 per acre, $2,400; A. F. Mills & J. H. Seymour, blk 220, 35 90-100 acres, at $60 per acre, $2,154; E. L. Watson, blk 190, 46 acres, at $65 per acre, $2,600; A. F. Mills, lots 3 and 4, blk 190, 10 acres, at $59 per acre, $590; T. Gates, lots 2 and 3, blk 191, 10 acres, at $52 per acre, $520; P. C. Tonner, lot 4, blk 192, 10 acres, at $47 per acre, $470; M. A. Marshall, blk 171, 10 acres, at $65 per acre, $650. Total, $18,455.50.

The second day's sale was also well attended, bnt at the conclusion of the sales the company decided to snspend them for the present, the prices not being satisfactory. Altogether, rising on $30,000 worth of lots and blocks have been disposed of so far. The following is the list of sales of Feb. 25th:

P. C. Tonner, lot 1, block 31, $65; S. Prager, lot 3, blk 31, $241; G. M. Jones, lot 4, blk 31, $41; J. Bridger, lot 6, blk 31, $41; R. C. Pierson, lot 7, blk 31, $95; P. C. Tonner, lot 1, blk 30, $60; N. Carne, lot 3, blk 30, $37.50; R. C. Pierson, lot 4, blk 30, $35; Wm. Allison, blk 159, 9 acres at $61 per acre, $549; G. C. Eagan, lot 3, blk 52, $60; H. Yount, blk 149, 10 acres at $55 per acre, $550; O. H. Bradner, lots 1, 2, 3 and 4, blk 147, 5 acres at $57 per acre, $285; R. C. Pierson, blk 173, 10 acres at $45 per acre, $450; J. C. Littlefield, blk 145, 10 acres at $46 per acre, $460; P. C. Tonner, blk 193, 43 acres at $46 per acre, $1,840; P. C. Tonner, blk 194, 40 acres at $45 per acre, $1,800; C. Burdick, blk 235, 35 30-100 acres at $41 per acre, $1,471.90; A. J. Anderson, lots 1 and 2, blk 188, 10 acres at $65 per acre, $650; J. Bridger, lot 5, blk 188, 10 acres at $60 per acre, $600; J. Bridger, lot 6, blk 188, 10 acres at $60 per acre, $600; J. A. Scott, lots 3 and 4, 10 acres at $58 per acre, $580; B. Whiting, lots 1 and 4, blk 221, 20 acres at $59 per acre, $1,450; G. C. Eagan, blk 38, 2½ acres, $260; T. Gates, blk 84, 2½ acres, $295; Mrs. E. L. Smith, lot 3, blk 42, $75; A. Teed, lot 4, blk 42, $62.50; Chris Messelbeck, lot 5, blk 42, $50; Mary Austin, lots 5 and 6, $90; H. B. Warren, lot 4, blk 55, $55; A. A. Green, lot 1, blk 54, $55; A. A. Green, lot 2, blk 54, $55; E. Germain, lots 5 and 6, blk 54, $80; S. Prager, lots 7 and 8, blk 43, $100; L. N. Marshall, lot 4, blk 43, $35; J. C. Littlefield, lot 4, blk 41, $61; J. C. Littlefield, lot 1, blk 41, $65; C. Meyer, blk 34, 2½ acres, $320. Total, $13,417.40.

Marin County Sales.

These real estate sales in Marin county are recorded in last week's *Herald:*

Barazillie M. Schofield to Henry Thies, tract of land in Nicasio township, containing 495.94 acres, being the same land sold by Taft and Fay to B. M. Schofield, $14,000; Henry Thies to Wm Redding, tract of land in Nicasio township, containing 153.53 acres, $6,000; Luigia Mazza, administratrix, to D. Bagnovinie, 582½ acres, same as last above, $4,250.

Sonoma County Sales.

L. D. Kimball to James McCappin, the southwest ¼ and east ½ of southeast ¼, section 9, and the northwest ¼ of southwest ¼ of section 10, township 9, range 13, 160 acres, $600; Jane Briggs to Hiram Briggs, lot 1 of section 35, and lot 1 and east ½ of northeast ¼ of section 34, and the north ½ of northwest ¼ of section 25, and the north ½ of northeast ¼ of section 26, township 10, range 8, 311½ acres, $1,000; Wm. Melton, et al, to John H. Fay, lot 27, Dry Creek valley, Tzabaco rancho, 101¼ acres, $7,000.

MINER WALDEN, found guilty of having altered certain election ballots in Stanislaus connty, will receive his sentence on March 30th.

Fluctuations of Prices for ten years in the San Francisco Wheat Market---Monthly Quotations from January 1st, 1864, to January 1st, 1876.

		1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.
Jan...	HIGHEST.	1 55	4 37½	2 20	1 80	2 75	2 05½	1 70	2 60	2 52	2 15	2 30	1 70
	AVERAGE.	1 45	4 25	2 20	1 77	2 68	2 05	1 70	2 27½	2 27	2 02½	2 15	1 60
	LOWEST..	1 25	3 45	2 06	1 50	2 55	1 52½	1 40	2 00	2 20	1 75	2 20	1 50
Feb....	HIGHEST.	1 75	5 30	2 25	1 75	2 91	2 05	1 75	2 52	2 25	2 00	2 25	1 55
	AVERAGE	1 55	4 75	2 17½	1 71	2 90	1 90	1 70	2 40	2 17½	1 87½	2 02½	1 52½
	LOWEST..	1 25	3 90	2 10	1 37½	2 42½	1 52½	1 37½	2 25	1 52½	1 60	1 85	1 50
Mar...	HIGHEST.	2 40	5 25	2 25	1 94	3 10	1 95	1 70	2 50	2 25	1 98	2 00	1 62
	AVERAGE	1 85	5 00	2 17½	1 80	3 00	1 80	1 67	2 40	2 05	1 36	1 90	1 55
	LOWEST..	1 60	4 75	1 88½	1 42	2 50	1 52½	1 27½	2 22	1 85	1 70	1 80	1 50
April..	HIGHEST.	2 50	5 25	2 25	2 22	2 70	1 77½	1 95	2 85	2 05	1 90	2 00	1 65
	AVERAGE	2 25	5 00	2 17½	2 00	2 62	1 72	1 62½	2 53	1 82½	1 82½	1 90	1 62½
	LOWEST..	1 70	4 77½	1 65	1 50	2 37½	1 32	1 47½	2 37½	1 60	1 75	1 80	1 60
May...	HIGHEST	3 00	5 00	1 75	2 15	2 45	1 65	1 94	3 15	2 16	2 00	2 00	1 70
	AVERAGE	2 67½	4 75	1 70	2 10	2 22	1 64	1 66	3 10	2 05½	1 91	1 80	1 67
	LOWEST..	2 45	4 62½	1 62½	1 65	2 10	1 17½	1 47½	2 60	1 75	1 75	1 70	1 65
June..	HIGHEST.	2 75	5 00	1 77½	2 00	2 50	1 65	1 98	2 60	2 16	1 85	1 85	1 75
	AVERAGE	2 60	4 75	1 70	1 77	2 06	1 57½	1 66	2 45	2 05	1 77½	1 77½	1 70
	LOWEST..	2 30	1 75	1 47½	1 55	2 00	1 32	1 60	2 30	1 82½	1 60	1 70	1 65
July ..	HIGHEST.	3 52½	2 00	1 60	1 82½	2 30	1 80	2 10	2 45	1 82½	1 82½	1 80	2 00
	AVERAGE	3 10	1 88½	1 50	1 72	2 00	1 75	1 96	2 22	1 62	1 74	1 65	1 75
	LOWEST..	2 75	1 75	1 37½	1 50	1 80	1 56	1 70	2 21	1 42½	1 60	1 57½	1 67½
Aug...	HIGHEST.	3 55	1 75	1 60	1 87	2 00	1 85	1 96	2 45	1 66	2 12½	1 80	2 40
	AVERAGE	3 50	1 70	1 50	1 77	1 85	1 80	1 88½	2 27	1 50	2 02	1 60	2 20
	LOWEST..	3 25	1 60	1 40	1 65	1 52½	1 42½	1 57½	2 12½	1 25	1 72½	1 40	2 15
Sept...	HIGHEST.	3 65	1 96	1 55	2 15	2 05	1 77½	1 80	2 85	1 70	2 35	1 65	2 15
	AVERAGE	3 52½	1 87	1 45	2 10	1 96	1 75	1 75	2 37	1 62½	2 25	1 52½	2 02½
	LOWEST..	3 30	1 70	1 25	1 75	1 70	1 42½	1 55	2 35	1 40	2 05	1 30	1 90
Oct....	HIGHEST.	4 37½	2 00	1 95	2 64	2 05	1 67½	2 05½	2 85	1 70	2 37½	1 57½	2 10
	AVERAGE	3 90	1 96	1 60	2 42	1 96	1 66	1 87	2 65	1 60	2 26	1 47½	1 97
	LOWEST..	3 60	1 80	1 35	2 17½	1 27½	1 20	1 67½	2 62	1 40	2 15	1 37½	1 90
Nov...	HIGHEST.	4 37½	2 12½	2 07	2 64	1 94	1 64	2 17	2 80	1 80	2 32½	1 62½	2 02½
	AVERAGE	4 25	2 05	1 80	2 53½	1 88	1 60	2 12½	2 75	1 65	2 27½	1 52½	1 90
	LOWEST..	3 00	1 75	1 65	2 16	1 42½	1 05	1 87	2 50	1 40	2 20	1 42½	1 85
Dec...	HIGHEST.	3 75	2 10	2 00	2 64	1 94	1 64	2 30	2 83	2 05	2 35	1 60	2 00
	AVERAGE	3 52½	2 05	1 87	2 53½	1 85	1 58	2 20	2 67	1 93	2 28	1 47½	1 95
	LOWEST..	3 25	1 94	1 75	2 50	1 52½	1 17½	1 87	2 42	1 65	2 17½	1 35	1 90

The Bill Against Land Grabbing.

The bill which has passed the Assembly relative to the 16th and 36th sections, and lieu lands, is a substitute for that of Senator McGarvey. It was submitted to the Assembly Ways and Means Committee by Mr. Blackwell, and was reported from that committee with a unanimous recommendation in its favor. The bill is of great interest to settlers, and it has been argued that its passage will be a boon to immigrants. The object is to give reliable information by the State as to the location of the lands mentioned. It was argned in the debate on the passage of the bill that such information can at present be had only on the payment of sums of money equal in many instanees to the nominal value of the lands. It was also represented that on account of the absence of such a law from the statnte books as is now proposed, these are lands which have been settled upon for years, but which, notwithstanding this possession, are liable to preemption to-day. In half a dozen words the measure may be described as a bill to prevent land grabbing. It is made the dnty of the Surveyor-General to obtain from the United States Surveyor-General a copy of all township plats and maps of private grants surveyed by authority of the United States, which are not already on file in his office, and of those which may hereafter be surveyed by the same authority. It is also made his duty to obtain from the United States registers a list of the 16th and 36th sections in full townships and the fractions in fractional townships, donated to the State for school purposes, which have not been sold under the pre-emption acts, and a list of those which have been thus sold, and also a list of such lands as have been reserved or are covered by private claims or grants, and for which the state is entitled to select other lands in lieu thereof, and the date of filing the township plats. After he has obtained the description of lands for which the State is entitled to indemnity, it is made the duty of the Surveyor General to amend the lieu, not to exceed 320 acres to any one applicant in all locations on file in his office in which the lieu is defective, and make amended applications to the United States Register, in order that the lands may be listed to the State; nor shall he approve any application or issne a certificate to persons for lieu land until after the land shall have been listed to the State. There is a proviso that the locations shall be amended in the order of filing, beginning with the oldest; and that no new applications for lien lands shall be filed, except where the same has already been listed, until all of the locations shall have been amended and listed to the State. The Surveyor-General is reqnired to make a full report to the Governor in 1877 of his transactions under this act, together with all transactions that may come to his knowledge pertaining to the management and sale of lands under all prior acts. Whenever the United States plats of townships have been fined in his office, the Surveyor-General shall canse a list of the same to be sent to the Recorder of the county in which the land is situated, and the Recorder must not only file the same, but publish it in some newspaper in the connty for four consecutive weeks, and persons in occupation of the lands indicated shall have 90 days in which to file their applications.

LARGE SEPARATORS, ETC.—Marcns C. Hawley & Co., of San Francisco, made some experiments a few days ago in the yard adjoining their warehouse with a straw burner and two extra large gold medal separators that have just arrived from the East. The separators have 36-inch cylinders, but the separating capacity is much greater in these two machines than in any other I have seen. The drapers are 56 inches wide. The pnlleys are of extra wide face, to run with wide belts. These two machines are hnge ones. J. W. R.

General News Items.

CHICO had a $20,000 fire on Sunday last.

THE Servians are determined to fight the Turks.

CONGRESS talks abont investigating the whiskey business.

PENNSYLVANIA rivers are being stocked with California salmon.

ARCHER's Fare and Freight bill has passed the Assambly.

THE San Francisco clearing honse will be opened March 11th.

THE Japanese Centennial Commission arrived on the *Gaelic*.

A STEAM railroad from Oakland to Berkeley is among the early probabilities.

DOM PEDRO, the emperor of Brazil, is coming to our Centennial exposition.

A STURGEON-SMOKING factory is to be established at Benicia by Eastern capitalists.

THE floods in Hungary have caused very great damage, rendering thousands honseless.

THE P. M. S. S. company's steamers have ceased to call at San Pedro and Santa Monica.

THE Street Department fund and School fund of San Francisco are both exhansted.

THE steamer *Mary Belle*, the largest boat on the Mississippi, was bnrned at Vicksburg on Sunday.

THE "Historical Elm," of Boston common, after an existence of 200 years was blown down by the gale of the 15th ult.

A HURRICANE in Missouri last week destroyed half a million dollars' worth of property in five minutes.

"LUCKY BALDWIN's" new theatre on Market street will be opened for the first time next Monday.

THE Mexican Border Committee will report in favor of three regiments of cavalry being stationed on the border.

A BILL is before the Legislature to create the county of Santa Ana out of the southeast part of Los Angeles county.

A BILL has been reported favorably in the House from the Committee on Retrenchment, reducing the President's salary to $25,000.

THE Senate has confirmed D. J. Barrow, of Nebraska, as United States Consnl at Dublin, and John M. Wilson as Consul at Hamburg.

THE workshop buildings at the State prison at San Quentin were burned on Wednesday, causing heavy loss to the State and contractors. The prisoners behaved well and there were no escapes.

DON CARLOS, the pretender to the Spanish throne, entered France on Satnrday. It is reported that he has issued a manifesto announcing that he relinquished the struggle in order to promote the welfare of Spain.

THE Legislative Committee on claims has reported adversely on the bills for the relief of General Sutter and J. W. Marshall, of gold discovery notoriety, and on the bill to pay the $20,000 claim of Joseph Neumann, of San Francisco, for two silk flags.

SENATOR JONES says that, without exception, all the newspaper articles pnrporting to describe what his bill or speech on the silver coinage question will contain are unauthorized, incorrect and imperfect. He withholds a description of the plan nntil an explanatory report is ready to accompany it.

SENATOR BOOTH on Monday laid before Congress the joint resolution of the California Legislatnre favoring cheaper telegraphic arrangements, and also asking an appropriation for the removal of obstructions in the Feather, Sacramento, Mokelumne and San Joaquin rivers, and Petaluma and Sonoma creeks, and the improvement of the channels of said streams.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington D. C., Feb. 29th, 1876.

FOR WEEK ENDING FEBRUARY 15TH, 1876.*

PANTALOONS AND OVERALLS.—Herman Adams, S. F., Cal.

WINDMILL.—Owen T. Davis, Brighton, Cal.

MEANS FOR CONVERTING BREECH LOADING RIFLES INTO MUZZLE LOADERS.—Charles D. Ladd, S. F., Cal.

ZITHERS.—Friedrich Langmaak, S. F., Cal.

TRAPS FOR ALGAMATING PANS AND SETTLERS.—Almarin B. Paul, S. F., Cal.

FEATHER DUSTER SUPPORTER.—Jacob Unna, S. F., Cal.

PROPELLING CANAL BOATS.—Louis F. A. Legonge, Wheatland, Cal.

COMPOSITIONS FOR PAVEMENT.—Daniel Richey, Napa, Cal.

SCREW PROPELLER.—F. H. B. Babbe, Antioch, Cal.

MEAT CURING APPARATUS.—Wm. K. Dietrich, S. F., Cal.

CHEMICAL HOT-AIR OR VAPOR BATHS.—Abram M. Loryea, S. F., Cal.

TRADEMARK.

LARD OIL.—Whittier, Fuller & Co., S. F., Cal.

THE STATE APPROPRIATIONS.—On Monday, February 28th, Assemblyman Berry introduced the general appropriation bill, which was referred to the Committee of Ways and Means. The following are the principal items, being for the 28th and 29th fiscal years:

Per diem and mileage of Lieutenant-Governor and Senators	$ 48,000
Per diem and mileage of Assemblymen	94,000
Pay of officers and clerks of Senate	13,000
Pay of officers and clerks of Assembly	14.000
Contingent expenses of Senate	18,000
Contingent expenses of Assembly	25.000
Transportation of prisoners	40.000
Transportation of insane	28,000
Support of State Prison	240,000
Support of Stockton Insane Asylum	420 000
Deaf, Dumb and Blind Asylum	66,000
Official advertising	4,000
Stationery and lights for the Legislature	16 000
Ballot paper	15,000

The Orphan Asylums are allowed $50 per orphan. The items relative to appointed officers are rednced in conformity with the Retrenchment bill which passed the Senate and is now before the Assembly.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

IMPROVED Advance, Improved Prize Mower, Advance Dropper, and New Reliable McCormick Harvester, are the names of the harvesting machines for which Mr. P. Mohan, 610 Davis St., S. F., is agent. Send for illustrated descriptive circulars.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

WHY should any one buy a soap half rosin or clay, when Dobbins' Electric Soap, (sold by Newton Bros. & Co., San Francisco,) is for sale? It costs but a trifle more, and will go five times as far. Try it.

BOUND VOLUMES of the PACIFIC RURAL PRESS, from Volume One, are for sale at this office; price $5 per volume for single volumes; unbound $3. There are two volumes per year.

A BROOM MAKER who understands his bnsiness, is wanted to go to Ukiah, for a steady situation. Address this office.

WILL W. B. Peck please send his address to Dewey & Co., 224 Sansome street, S. F., and oblige?

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,

No. 166 TEHAMA STREET,

Cor. Third, bet. Howard and Folsom, San Francisco

eowbp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 1, 1876.

During the last week there has been something of an improvement and activity in some branches of trade, and yet nothing very notable has occurred. The heavy rain of Saturday and Sunday leaves the relations between city and country almost as they were before; the heavy roads still limit travel and shipment of produce in some parts of the State.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	Cal. Average	Club.
Thursday	9s 11d@10s 2d	10s 3d@10s 10d
Friday	9s 10d@10s 1d	10s 3d@10s 9d
Saturday	9s 10d@10s 1d	10s 3d@10s 9d
Monday	9s 10d@10s 1d	10s 3d@10s 9d
Tuesday	9s 10d@10s —	10s 2d@10s 8d
Wednesday	9s 10d@10s —	10s 2d@10s 8d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 6d@12s 8d	12s 9d@ 13s —
1875	8s 11d@ 9s 3d	9s 3d@ 9s 10d
1876	9s 10d@10s —	10s 2d@10s 8d

The week closes the record for February. The export trade in Breadstuffs during the past month has been quite light. Fifteen cargoes of Wheat were cleared, aggregating 589,231 ctls, valued at $1,157,579. The exports of Flour embraced 35,882 bbls, valued at $192,035. The quantity shipped shows a slight increase over January, but otherwise it is the smallest since last July.

During the month the Wheat fleet of 1875-6 has descended upon the English coast in good force. Our record shows the arrival of 22 ships with 884,376 ctls of Wheat from this State alone during the month of February.

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Weekly Receipts of Domestic Produce.

Articles.	Week Feb. 9.	Week Feb. 16.	Week Feb. 23.	Week Mar. 1.
Flour, quarter sacks	42,600	30,737	28,888	53,954
Wheat, centals	262,148	113,238	87,403	161,897
Barley, centals	25,377	10,476	7,730	9,799
Beans, sacks	679	1,047	1,833	1,201
Corn, centals	728	670	1,884	1,929
Oats, centals	1,500	1,327	7,019	894
Potatoes, sacks	9,460	6,510	11,327	11,639
Onions, sacks	1,424	1,116	760	1,431
Wool, bales	65	245	181	102
Hops, bales	31	23	32	210
Hay, bales	3,501	1,920	1,604	1,277

California Wheat in England.

The record of the month closing makes timely the following review of the trade of 1875, which we copy from the *Bulletin*. The table will be found of value for reference and should be preserved. The course of the English Wheat market thus far this season has disappointed those who have been furnishing supplies. Business for the previous year was also unsatisfactory. The quotations for average California Wheat at Liverpool at intervals of ten days, during the year 1875, were as annexed:

	1st		10th		20th	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January	9	10@10 4	9	8@10 1	9	3@ 9 6
February	9	3@ 9 6	8	11@ 9 2	8	10@ 9 2
March	8	11@ 9 3	8	11@ 9 5	8	11@ 9 5
April	9	3@ 9 7	9	3@ 9 7	9	0@ 9 4
May	9	1@ 9 3	8	11@ 9 2	9	0@ 9 2
June	8	10@ 9 1	8	10@ 9 1	9	1@ 9 4
July	8	10@ 9 2	9	2@ 9 5	10	2@10 6
August	10	8@11 0	11	9@12 0	11	2@11 5
September	11	3@11 5	10	10@11 0	10	7@11 0
Ootober	11	0@11 3	11	0@11 3	11	1@11 5
November	11	0@11 4	10	10@11 2	10	8@11 0
Decembsr	10	10@11 1	10	8@11 1	10	6@11 0

The quotations for Club Wheat, which forms only a small portion of our shipments to England, have been from 6d to 5d higher than the foregoing figures. The distinguished feature of the market last year was its steady character. With the exception of one or two months, the fluctuations were very light. There was only a variation of 1s per cental from January to June. The market showed a downward tendency until the last week in March, when the first rally was experienced. This advance of 4d lasted about a month, when it vanished. At the close of May, the market again weakened and the downward tendency was not arrested until about the 10th of July. Depleted supplies of old Wheat and a spell of unfavorable weather, in connection with reported damage to crops in other parts of Europe, caused prices to rapidly advance during the four weeks ending August 10th. Within this interval the quotations rose from 9s 2d@9s 5d to 11s 9d@12s, a gain of 2s 7d per cental. This was the highest point reached during the season, showing a gain of 3s over the lowest point in June. Since then the English market has disappointed nearly everybody. The highest subsequent quotation for average California Wheat at Liverpool has been 11s 5d per cental. The course of the market has been uniformly down, and the only solution of the matter is found in a larger outturn of European crops than was thought possible last July and August.

The Broom Trade.

The large shipments of Brooms by the *Mikado* is worthy of special mention. This industry has risen to some prominence, and, judging by the increasing exports of the article, manufacturers are building up quite a lucrative business with foreign countries. So far as we are already advised the *Mikado* will have 1,134 dozen for Australia and 303 dozen for New Zealand, in all 1,437 dozen. For the year 1875, the exports amounted to $30,457.

Bags—We advance our quotations for Bags this week. There have been sales for cash at 11c for English Wheat, and we are informed of contracts for future delivery at 11½c. Calcutta Bags have been sold to arrive at 11½c.

Barley—There is little change in prices for Barley. We quote Chevalier as high as $1.40 per ctl, but to gain this price it must be bright Bay Chevalier. Anything else goes at Feed prices. The steamer *Mikado*, for Australia, took out 6,000 ctls choice Chevalier on owner's account. The grain came by rail from Sunol. The valuation of the shipment is given as $7,800. We note sales] during the week: 1,200 sks Bay Brewing, $1.35; 1,000 sks good Bay Feed, $1.25; 500 do choice Coast do, $1.25; 600 do fair Bay Brewing, $1.32½; 500 do Chevalier, $1.40; 200 sks dark Coast Feed at $1.20; 200 do choice do, $1.25; 1,400 do good Bay Feed, in two lots, $1.25; 300 do choice do, $1.27½; 100 sks dark Coast $1.20; 125 do bright Coast, $1.25, hf silver; 1,000 do Bay Feed, $1.25. We quote Brewing at $1.30@1.35, and Bay Chevalier at $1.35@1.40 per ctl.

Beans—Beans are unchanged from last week.

Corn—White Corn is advanced in our tables. The market is very variable, and is easily weakened by arrivals. We note the following sales during the week: 135 sks large Yellow at $1.20; 250 do do and White, $1.17½; 200 do small Yellow, $1.37½ per ctl, all for half silver; 300 sks good White, $1.15; 100 do large Yellow, $1.17½; 600 sks large Yellow, $1.25@1.27½; 100 sks small round Yellow, $1.45; 300 sks small Yellow at $1.40, half silver; 300 do, $1.20 per ctl, half silver; 300 sks good large Yellow, $1.17½; 125 do do, $1.20; 200 do small Yellow, $1.37½; 100 sks damaged, $1.05; 50 do mixed White and Yellow, $1.17½; 100 do good Yellow, $1.17½ per ctl.

Dairy Produce—Butter continues in large supply, and prices are unchanged from last week. New Cheese is in great demand and the market is almost bare. Eggs have weakened and declined.

Feed—We note no general change in Feed prices. We hear of sales of 40 tons fair Wheat Hay at $16.50; 20 tons good Barley, $16.50; 20 do good Oat, $16; 20 do fair Wheat, $15; 43 do fair Wheat and Oat, $15.25 per ton. Hay is at hand in large quantities and it is difficult to reach top prices. Nothing but very choice stock can reach $18.

Provisions—The Provision market is firmer. Lard has advanced from ½ to ¾c ₱ lb. The demand for Provision supplies is increasing. Pork is quotable higher. Bacon also advances a trifle.

Hops—There has been a little more doing in Hops. Several round lots have changed hands this week for shipment East and to Australia, but at low prices. The stock on hand is large for the season, as prices have been so low thus far that many holders have been indifferent about selling. We are informed that the selections for shipments gained from 10c to 13c, but since the demand is supplied, the outside price is no longer attainable. Emmett Wells reports the New York market for the week ending February 18th, as follows:

"The market continues firm and demand quite active. A thousand bales of choice Hops have cleared for export this week, and shippers are on the alert for more, but they don't want to pay over 17c for the best Hops. Indeed there is a great scarcity of fine Hops, and shipments would, no doubt, be largely increased could quality to suit be found; there is no scarcity of medium and low grades, however; in fact, the heavy receipts of late has caused quite a accumulation of this class, and there seems to be no outlet for it; as the better grades are cleared off, however, seconds and low must gradually come into use."

Oats—Oats are now in abundant supply. The last Oregon steamer brought 1,400 sks. We note sales of 100 sks heavy Milling at $2.30; 400 sks fair Feed, $2.10; good to choice, $2.20@2.25 ₱ ctl.

Onions—Our Onion quotations have prevailed generally since our last. There have been heavy arrivals from Oregon besides the bay receipts, and the supply seems ample. We note sales of 350 sks Union City and Oregon in lots at $2@2.12½; 30 sks choice Union City at $2.25; 40 do fair do, $2; 27 do poor, $1 ₱ ctl.

Potatoes—Potatoes are slightly advanced in price, although receipts are liberal. We note sales: 100 sks extra choice Petaluma, $1.80; 100 sks Oregon, $1.75; 400 sks Tomales, $1.75; 150 sks Early Goodrich (for seed) $2.60; 700 sks choice Petaluma, $1.70. Poor and medium qualities are cheaper and dull.

Wheat—During the week the Liverpool quotation has shown a downward tendency. Prices in this market are quotable lower; Shipping, $1.80@1.85; Milling, $1 85@1.92½. We note sales: 300 sks fair Shipping, $1.80; 2,500 do good do in two lots, $1.82½; 1,000 sks Shipping, to be delivered at Oakland, $1.85; 3,200 sks fair Milling, $1.87½; 800 sks choice White to a miller at $1.85. White Chile is plentiful at $1.85@1.87½, but choice Australia is scarce, and millers still have to pay $1.90@1.95 ₱ ctl for it. Receipts from Oregon of 6,438 sks; sales of 2,500 sks Shipping at $1.82½; 1,400 do Milling at $1.87½.

Wool—There is nothing new in the Wool trade. Now that the new clip is approaching, it will be of interest to have a coodensed statement of prices which prevailed during last year. The following represents the comparative prices in gold of A 1 California Wool (not burry) in San Francisco and New York during 1875:

	S. Francisco.		New York.	
	Spring	Fall & Lambs.	Spring	Fall & Lambs.
January	18@20	14@19	25 @33	18 @23
February	18@20	12@15	24½@32½	18 @23
March	15@23	11@13	24 @32	17 @22
April	16@25	11@13	24 @32	16½@21
May	16@25	Nom'l	23½@31	16 @20½
June	16@25	Nom'l	23 @31	16 @20
July	16@25	Nom'l	22 @30	15 @20
August	16@25	11@14	22 @30	15 @20
September	Nom'l	12@15	21½@29	14½@19
October	Nom'l	12@17	21 @28	14 @19
November	Nom'l	12@17	20 @28	13½@19
December	Nom'l	10@15	19 @27	13 @19

Vegetables—The early birds of Vegetable growth are coming upon the market. The first Cucumbors of the season were received from Dr. Hubbard, Vacaville, Solano county, and brought $6 ₱ dozen. The standard Vegetables are advancing in price. Carrots and Squash have improved, as may be seen in our tables. Mushrooms are now quoted at 20c wholesale.

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Charles Sutro & Co.]

SAN FRANCISCO, March 1, 3 P. M.

Legal Tenders in S. F., 11 A. M., 88½ to 89.

Gold in N. Y. 114⅛.

Gold Bars, 900. Silver Bars, 11 and 15 per cent. discount.

Exchange on N. Y., 60-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, eight to ten per cent. discount.

London — Consols, 93 to 93¼; Bonds, 102⅛

Quicksilver in S. F., by the flask, per ₱, 72½@75c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., March 1, 1876.

BEANS.

Bayo, ₱ ctl	3 50	@	3 67½
Butter	1 75	@	2 00
Pea	1 75	@	2 00
Pink	2 00	@	2 50
Sm'l white	1 70	@	1 85

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	22½	@	25
Point Reyes	25	@	27½
Firkin	25	@	27½
W'st'n Reserve	15	@	20
New York	25	@	27½

CHEESE.

Cheese, Cal., lb	14	@	16
do Old	10	@	15
Eastern	15	@	20

EGGS.

Cal. fresh ₱ doz	—	@	27½
Ducks'	—	@	35
Oregon	30	@	35
Eastern	22	@	25

FEED.

Bran, per ton	—	@	22 50
Corn Meal	29 00	@	30 00
Hay	15 00	@	18 00
Middlings	32 50	@	— —
Oil cake meal	—	@	37 50
Straw, ₱ bale	— 65	@	70

FLOUR.

Extra ₱ bbl	5 75	@	6 12½
Superfine	4 75	@	5 00

FRESH MEAT.

Beef 1st quality lb	7	@	9
Second do	6	@	7
Third do	5½	@	6
Spring Lamb	10	@	12
Mutton	5	@	6
Pork, undressed	6¾	@	7½
do, dressed	10	@	10¾
Veal	5	@	7
Milk Calves	8	@	8½

GRAIN, ETC.

Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	— —
Chevalier	1 25	@	1 40
Corn, White	1 10	@	1 20
do Yellow	1 20	@	1 40
Oats	2 00	@	2 25
Rye	1 50	@	1 65
Wheat shipping	1 80	@	1 85
do milling	1 85	@	1 92½

HIDES.

Hides, dry	15	@	16½
do wet salted	7	@	7½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	18	@	22½
do Strained	6	@	12½

HOPS.

New crop	10	@	12

NUTS—Jobbing.

Alm'ds h'd sh'l lb	8	@	10
do, soft sh'l	16	@	20
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	1 75	@	2 25
Stockton	1 50	@	1 87½

POTATOES.

Petaluma, ₱ sk	1 75	@	1 80
Salt Lake	—	@	— —
Sac River	1 50	@	1 62½
Humboldt	1 50	@	1 80
Early Rose	—	@	3 00
Sweet	— —	@	3 50

POULTRY & GAME.

Hens, per dz	8 00	@	9 00
Roosters	9 00	@	10 00
Broilers	7 00	@	8 00
Ducks, tame, dz	10 00	@	11 00
do Mallard	3 00	@	4 00
do Canvass	4 00	@	4 50
Geese, per pair	2 50	@	4 00
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	16	@	20
do Dressed	18	@	23
Quail, per doz	1	@	1 75
Snipe, Eng., doz	1 50	@	2 00
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	3 00

PROVISIONS.

Cal. Bacon, L't, lb	15	@	15½
do Medium	14½	@	15
do Heavy	—	@	14½
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'rn Should'e	—	@	10
Hams, Cal	14	@	14½
do Armour	16	@	16½
do Worster's	17	@	17½
do Dupee's	17	@	17½

SEEDS.

Alfalfa, Chile lb	8½	@	11½
do Callifornia	11	@	13
Canary	20	@	22½
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennia do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	33	@	—
do 2d quality	20	@	—
do 3d quality	—	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy	11	@	13

TALLOW.

Crude, ₱ lb	6½	@	7½
Refined	8¾	@	9

WOOL, ETC.

FALL—			
Seedy, ₱ lb	11	@	12½
Choice free	12	@	18
Burry	9	@	11
Oregon	—	@	—

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., March 1, 1876.

POULTRY, GAME.

Chickens	75	@	1 00
Hens	75	@	1 00
Eggs, Hens	55	@	60
do Ducks'	—	@	60
do Farallones	—	@	—
Turkeys, ₱ lb	20	@	25
Ducks, each	1 00	@	1 25
Geese, wild, pair	50	@	1 00
Tame, ₱ pair	3 00	@	4 00
Snipe, ₱ doz	1 25	@	1 50
do English	—	@	3 00
Quail, per dozen	75	@	2 00
Prairie Ch'k s, pr	—	@	—
Hares, each	25	@	50
Rabbits, each	15	@	20
Squirrels do	—	@	15
Hams, Cal. ₱ lb	16	@	20

FISH, MEATS, ETC.

Flounder, ₱ lb	15	@	35
Salmon, ₱ lb	15	@	25
Smoked	—	@	8
Cod Fish, lb	12	@	15
Lake Big. Trout	—	@	30
Beef, tend, ₱ lb	15	@	18
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	—	@	15
Porter House St'k	—	@	20
Sirloin do	12	@	15
Round do	8	@	10
Pork, rib, etc., lb	12	@	12½
Chops, do, ₱ lb	15	@	—
Veal, ₱ lb	10	@	15
Outlet, do	15	@	25
Mutton-chops, lb	10	@	12
Leg Mutton, ₱ lb	10	@	15
Lamb, ₱ lb	20	@	22½
Antelope	15	@	20
Tongues, beef	75	@	1 00
do, do, smoked	75	@	1 00
Tongues, pig, lb	12½	@	—
Bacon, Cal., ₱ lb	16	@	20

FRUITS, VEGETABLES.

Apples, pr lb	5	@	8
Pears, per lb	5	@	12½
Anrioots, lb	—	@	—
Peaches, lb	—	@	25
Plums	—	@	—
Pine Apples, each	50	@	1 00
Lady Apples	—	@	25
Grapes	—	@	25
Bananas, ₱ doz	75	@	—
Muskmelons	—	@	—
Watermelons	—	@	—
Blackberries	—	@	—
Cal. Walnuts, ₱ lb	—	@	25
Cranber'es, Org., do Eastern qt	—	@	20
Huckleberries	—	@	—
Strawberries, lb	—	@	—
Raspberries, lb	—	@	—
Gooseberries	—	@	—
Currants	—	@	—
Cherries, ₱ lb	—	@	—
Nectarines	—	@	—
Pomegranates	—	@	—
Oranges, ₱ doz	50	@	75
Lemons	75	@	—
Limes, per doz	20	@	25
Figs, dried Cal	12½	@	15
Figs, Smyrna, lb	25	@	35
Asparagus, lb	50	@	62½
Artichokes, doz	75	@	1 25
do Jerusalem	—	@	8
Beets, ₱ doz	20	@	25
Potatoes, ₱ lb	2	@	3
Potatoes, sweet	—	@	6
Broccoli, each	10	@	15
Cauliflower	10	@	15
Green Peas ₱ lb	—	@	50
Cabbage, per hd	10	@	12½
Oyster Plant, bn	—	@	12½
Carrots, ₱ doz	—	@	25
Celery, ₱ dz	75	@	1 00
Cress, ₱ doz bun	20	@	25
Onions	3	@	4
Turnips, ₱ doz bunches	—	@	25
Brussels Sprouts	6	@	8
Eschalots	—	@	25
Dried Herbs, doz	30	@	50
Garlic ₱ lb	12½	@	—
Green Corn, doz	—	@	25
Lettuce, ₱ doz	25	@	—
Mint, ₱ bunch	—	@	12½
Mushrooms, ₱ lb	—	@	25
Horse radish, ₱ lb	15	@	25
Okra, dried, ₱ lb	—	@	—
Pumpkins, ₱ lb	5	@	6
Parsnips, doz	—	@	25
Parsley	12½	@	—
Pickles, frsh, ₱ lb	—	@	—
Radishes, doz	20	@	25
Sage	—	@	25
Marrowfat, do	1½	@	—
Hubbard, do	—	@	—
Mangoes, ₱ doz	—	@	—
Spinage ₱ bskt	—	@	12½
Rhubarb	10	@	12
Green Chilies	—	@	25

LEATHER.

[WHOLESALE.]

WEDNESDAY M., March 1, 1876.

City Tanned Leather, ₱ lb			22@29
Santa Cruz Leather, ₱ lb			22@28
Country Leather, ₱ lb			22@28
Stockton Leather, ₱ lb			25@29
Jodot, 8 Kil., per doz			$50 00
Jodot, 11 to 13 Kil., per doz	68 00	@	79 00
Jodot 14 to 19 Kil., per doz	82 00	@	94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00	@	74 00
Cornellian, 12 to 16 Ko	57 00	@	67 00
Cornellian Females, 12 to 13	63 00	@	67 00
Coroellian Females, 14 to 16 Kil	71 00	@	76 50
Simon Ullmo Females, 12 to 13, Kil	58 00	@	62 00
Simon Ullmo Females, 14 to 15, Kil	66 00	@	70 00
Simon Ullmo Females, 16 to 17, Kil	72 00	@	74 00
Simon, 18 Kil., ₱ doz	61 00	@	63 00
Simon, 20 Kil. ₱ doz	65 00	@	67 00
Simon, 24 Kil. ₱ doz	72 00	@	74 00
Robert Calf, 7 and 9 Kil	35 00	@	40 00
French Kips, ₱ lb	1 00	@	1 15
California Kip, ₱ doz	40 00	@	60 00
French Sheep, all colors, ₱ doz	8 00	@	15 00
Eastern Calf for Backs, ₱ lb	1 00	@	1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00	@	13 00
Sheep Roans for Linings, ₱ doz	5 50	@	10 50
California Russett Sheep Linings	1 75	@	4 50
Best Jodot Calf Boot Legs, ₱ pair	5 00	@	5 25
Good French Calf Boot Legs, ₱ pair	4 00	@	4 75
French Calf Boot Legs, ₱ pair	4 00	@	—
Harness Leather, ₱ lb	24	@	32½
Fair Bridle Leather, ₱ doz	48 00	@	72 —
Skirting Leather, ₱ lb	33	@	37½
Welt Leather, ₱ doz	30 00	@	50 00
Buff Leather, ₱ foot	17	@	⅞
Wax Side Leather, ₱ foot	17	@	

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., March 1, 1876.

BAGS.

Eng. Stand Wht	11	@	11½
Nevillo & Co's			
Hand Sewed	11	@	11½
24x36	12	@	12½
24x40	—	@	—
Machine do 24x40	12	@	12½
" " 23x40	11¼	@	11½
" " 22x40	11	@	11¼
" " 22x36	10	@	11
Flour Sacks ⅛s	9½	@	11
" " ¼s	6¼	@	7
" " ½s	4½	@	5
Hessian 60-in	12¾	@	14½
do 45-in	8¾	@	9
do 40-in	7½	@	8
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. tunnies	—	@	15
singie seam do	—	@	—
Bean Bags	7¼	@	8
Barley Bags 24x36	11¾	@	12
do 23x40	11½	@	12
do 24x40	12	@	12½
Oat Bags, 24x40	12	@	12½
do 28x36	—	@	13½

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	—	@	9 00
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	—	@	18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	13 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in cs	25	@	—
Chicory	27	@	—

FISH.

Sac. Dry Cod, new	4	@	4½
cases	6	@	7
do boneless	8½	@	10
Eastern Cod	7½	@	8
Salmon in bbls	8 50	@	9 00
do ½ bbls	4 50	@	5 00
do 2lb cans	2 25	@	2 30
do 1lb cans	1 25	@	1 30
do Col. R. ½ lb	5 00	@	5 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bls	9 00	@	11 00
" Extra	—	@	12 00
" in kits	1 90	@	2 00
" Ex mess	4 00	@	4 50
" Ex mess, ½ bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	7	@	9

NAILS.

Assorted size keg	3 75	@	4 00

OILS.

Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	1 25
Baker's A A	—	@	1 40
Cocoanut	55	@	60
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	80	@	—
do boiled	—	@	75
China nut in os	70	@	75
Sperm, crude	—	@	1 40
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	—
Lard	—	@	—
Oleophine	—	@	28
Devoe's Bril't	—	@	—
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	27½
Barrel Kerosene	23	@	25
Olive	—	@	3 50
Downer Kerose'e	40	@	—
Elaine	40	@	—
Gas Light Oil	23	@	25

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	2
Putty	4	@	5¼
Chalk	—	@	2½
Paris White	2¾	@	—
Ochre	3	@	5
Venetian Red	3½	@	5
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	6 00	@	6 25
Hawaiian, ₱ lb	—	@	8
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00

SAP.

Castile ₱ lb	10	@	11¼
Common brands	4¼	@	6
Fancy do	7	@	10

CANDLES.

Grant's	16½	@	17
Mitchell's	20	@	22

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citroo	28	@	30
Nutmegs	95	@	97½
Whole Pepper	14½	@	14½
Pimento	16

SHEEP AND WOOL.

The Wool and Woolen Interest.

We find in one of our New York exchanges some interesting statistics upon the wool and woolen industry of the United States. The number of sheep in the United States for the last four years respectively and their valuation in 1874 and 1875, as compiled from authentic sources, is as follows:

Year.	Sheep.	Valuation.
1860	22,471,275	.....
1870	28,477,951	.....
1874	33,938,200	$88,690,569
1875	33,783,600	94,320,652

The falling off from 1874 to 1875 was evidently due to the hard times, which have decreased the demand and the prices for all kinds of products.

The distribution of the wool producing industry is indicated in the following table, which includes all the States having 1,000,000 sheep or more the total in the United States being 28,477,957 head, and gives the number of pounds of wool produced in each, according to the census of 1870, the total production of the United States being 100,102,387 pounds:

	Sheep.		Lbs. Wool.	
	1870.	1860.	1870.	1860.
New York	2,181,578	2,611,855	10,599,225	9,454,474
Pennsylvania	1,7[illegible]4,301	1,631,540	6,561,722	4,752,522
Missouri	1,352,001	937,445	3,649,390	2,979,778
Ohio	4,928,635	3,546,767	20,539,643	10,668,927
Indiana	1,612,680	991,175	5,029,023	2,552,318
Illinois	1,568,286	769,135	5,739,249	1,989,567
Michigan	1,988,906	1,241,744	8,726,145	3,980,888
Wisconsin	1,069,282	332,954	4,090,670	1,011,933
California	2,768,187	1,088,002	11,391,743	2,683,109

Two-thirds of the sheep in the country, as will be seen by the above table, were owned in the nine States named, and those States furnished about three-fourths of the wool product. Ohio takes the lead, California stands next, New York third and Michigan fourth.

The wool corded and dressed in all the States amounted per value to $3,504,052, making in manufactured products $4,675,926. The following table shows the amount of cording and cloth dressing done in the States named:

	Materials.	Products.
Kentucky	$311,000	$415,401
Maine	223 085	282 373
Michigan	163,216	213,315
Missouri	508,416	671,032
New York	483,972	554,840
Pennsylvania	265,157	395,402
Tennessee	367,643	491,847
Virginia	109,686	136,123
Wisconsin	105 605	137,071

The total value of the wool worked up in the United States in 1870 was $93,406,884, and of all materials $96,432,601, resulting in products valued at $151,296,196. In 1860 the value of all materials worked into woolen goods was $36,586,287—showing that the industry had nearly trebled in 10 years. The materials used in the latter year, in five States, and the value of the products were as follows;

	Materials.	Products.
Massachusetts	$24,866 1 8	$39,489,242
Pennsylvania	17,325,849	27,361,897
Connecticut	11,016,925	17,365,148
New York	8,348,693	14,152,645
Rhode Island	8,089,948	12,558,117
Total	$69,647,532	$110,927,049

Pulling Wool.

The *Ohio Farmer* contains the following directions for taking the wool from sheeps' pelts: Prepare a board three feet wide and three or four feet in length, with one smooth side; spread a pelt on the smooth side of the board, flesh side up. Have mixed some lime and water, about the consistency of good rich cream, (lime mixture such as is suitable for plastering or laying brick will do, but you must use a little more of the latter.) Wood ashes mixed with water, as with lime, will start the wool quicker, but it frequently eats into the skin, and makes it so tender that the skin will tear in pulling. Spread a thin layer or coating of the lime mixture all over the flesh side, then fold the flesh sides together carefully, and roll up, and lay in a moderately warm place from six to twelve hours; the wool will then be ready to pull. Then place the board at an angle of say forty-five degrees, unroll the pelt, scrape off the lime, and lay the flesh side upon the board, holding the neck in one hand, and with the other slide or push the wool off in a whole fleece, which can be easily and nicely done in ten minutes. Then roll it up, same as if shorn wool. Put the fleeces separately in a dry and airy place for six or eight days, to let the moisture escape that is natural to lately shorn wool, as well as that absorbed from the use of lime moistnre. Last year we had a similar lot of wool to that we now have, and sent it to a wool manufactnrer. Their sorter valued it at 45 cents per pound. Calling such wool worth 35 cents this year, we get for the wool of each pelt $1,90⅓, or $1.17⅓ more than the highest price the pelts would have brought.

To Fasten Labels to Tin Cans.—Put a teaspoonful of brown sugar into a quart of paste, and it will fasten labels as securely to tin cans as to wood. Housewives may save themselves much annoyance in the loss of labels from their fruit cans when putting up their own fruit, by remembering this fact.

It is said that one pound of gold may be drawn into a wire that would extend round the world.

Nurserymen.

1865. 1875.

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$20	$150
Pear "	20	180	Pear "	25	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	260
Peach "	22	180	Apricot "	25	240
Nectarine "	25	—	Fig "	20	—
Quince "	20	—	Fertille de Pallien	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, to order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,

P. O. Box, 722. 516 Battery Street.

PEPPER'S NURSERIES.

(Established In 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulue, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

BLUE GUM TREES.

400,000 For Sale. Price from $10 to $45 per 1,000. Also a fine stock of Ornamental Trees, Etc.

Main Depot, 118 East 12th street, Oakland. Branch Depot, Market street, opposite new City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

BAILEY & CO.,

Box 80, Oakland, Cal.

100,000 BLUE GUM TREES

FOR SALE.

Grown in open ground and of most excellent quality—FAR SUPERIOR TO ANY BOX GROWN PLANTS—offered at Greatly Reduced Rates.

500,000 SEEDLINGS AND BOX GROWN TREES

In fine order, at ten and fifteen dollars per thousand. All trees delivered on wharf in San Francisco at nursery rates. We wish it distinctly understood our trees for forest planting are RESPONSIBLE NURSERY STOCK. Address

W. A. T. STRATTON,

PACIFIC FOREST TREE NURSERIES,

Petaluma, Cal.

BAY NURSERY,

OAKLAND, CAL.

Lock Box, - - - 331.

JAMES HUTCHISON, Proprietor.

[Established 1852]

Has for sale an Immense Stock of EVERGREEN TREES, SHRUBS and FLOWERING PLANTS at GREATLY REDUCED PRICES. Monterey Cypress Seedlings from two and a half to five dollars per hundred. Two and three year plants two to six feet, twelve and a half to twenty-two dollars per hundred. Chinese Arbor Vitæ, twelve to sixteen inches, eight dollars per hundred.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Luisante.

Chestnut: Marron de Lyon and Combale.

Walnut: Preparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

Fruit Trees

In great variety and quantity, including Apricots, Apples, Cherries, Figs, Peaches, Pears, Plums, etc., all warranted to be true to labels; for sale at a great sacrifice on account of

REMOVAL.

Peaches a specialty, and is the best and most *complete* assortment on the Pacific Coast. Also Almond, Walnut, Maple, Poplar and Mulberry trees for shade and fruit

Terms Cash. Send orders by mail or express, or apply at the Vacaville Nursery, 3 miles west of town, on the Suisun road. D. E. HOUGH,

Vacaville, Solano Co., Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camellas and Lily Bulbs constantly arriving from China and for sale very cheap Plants packed and delivered on the wharf for shipment, free of charge. B. B. WILLIAMS & CO., Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS, all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

John Saul's Catalogue of New, Rare and

Beautiful Plants for Spring of 1876, will be ready in February, with a colored plate. Many beautiful new plants are offered—all at very low rates Free to all my customers; to others, price 25 cents. A plain copy to all applicants free. Now ready, catalogue of Garden and Flower Seeds, Fruit and Ornamental Trees. Washington City, D. C.

ROSES

700 SUPERB VARIETIES ROSES. Half a Million Greenhouse Plants. Mailing Plants a Specialty. Illustrated Catalogue Free. E. Y. TEAS & CO. Richmond Ind.

Bloomington Nursery, F. K. Phenix, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWER SEEDS FIELD TREE GARDEN

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞ Trade Price-List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain Instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,

607 Sansome St., San Francisco.

D. M. FERRY & CO'S NEW, ILLUSTRATED, DESCRIPTIVE AND PRICED SEED ANNUAL 1876

Will be mailed free to all applicants. This is one of the largest and most complete Catalogues published; contains about 250 pages, over 600 fine engravings, 2 elegant colored plates, and gives full descriptions, prices, and directions for planting over 1200 varieties of Vegetable and Flower Seeds, Bedding Plants, Roses, &c., and is invaluable to Farmer, Gardener and Florist. Address,

D. M. FERRY & CO.,

Seedsmen and Florists, DETROIT, Mich.

ALL ABOUT GARDENING

For Home Use and for Market, in Root's Garden Manual—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias. Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, always pay. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

MAILED FREE FLORAL GUIDE

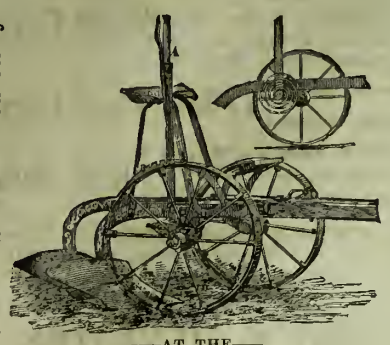
Contains over 1,200 varieties Vegetable and Flower Seeds. COLORED PLATES. Elegant wood-cuts of vegetables and flowers. Handsomest Guide Published! ☞ Send for it.

DETROIT SEED CO., Detroit, Mich.

Agricultural Articles.

OAKLAND GANG PLOW

Pat. and Manufactured by HENRY N. DALTON.



—AT THE—

PACHECO

Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or be raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,

Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

American Chief Gang Plow.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

Miscellaneous Notices.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord
J. VOLLMAR .....S. F.
J. D. BLANCHAR.....Napa
C. MITCHELL GRANT.....
J. REOENSBURGER.....S. F.
A. W. THOMPSON.Petaluma
F.A. KIMBALL....San Diego
I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 40 California Street, S. F.

Our Combined WHOLESALE List of

EVERYTHING

FOR THE

GARDEN!

(Seeds, Plants, Florists' Requisites, etc.)

For the TRADE ONLY, mailed free on application.

Peter Henderson & Co.

35 Cortlandt Street,

NEW YORK.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 & 303 J STREET, - - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow. Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and landsides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for the team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tule and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..$85 00	Extra Shares—No. 1..... $3 00	Landsides for single Plows.. $2 50	
No. 2 " " " " .. 90 00	" " No. 2..... 3 50	" " Gang Plows... 1 50	

All kinds of casting done on short notice.

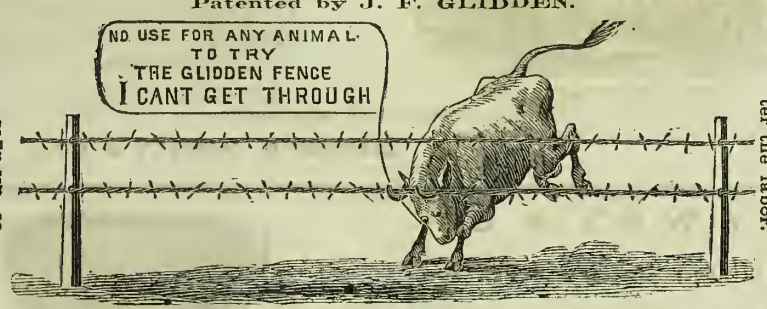
San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 & 39 Battery Street.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED WIRE FENCE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

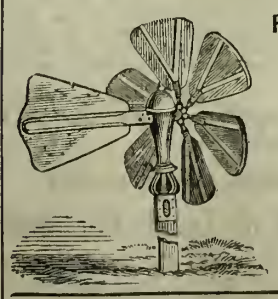
GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

El Dorado, El Dorado Co., Ca

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

Davis & Sutton, Commission Merchants,

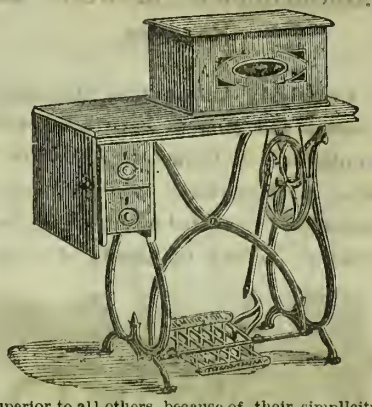
For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of J. M. DUDLEY, Dixon, Solano County, Cal.

FARMERS write for your paper.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

THE ALDEN FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes. They "sow *like a charm:*" *no packing* of seed in the hopper, *no crushing* it, *no pausing or waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, *no "skips," no noise, no equal!* THE DOUBLE WHEEL HOE works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable COMBINED MACHINE possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our NEW HORSE HOE, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. **We must have a Live Agent in Every Town.**

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

TRADE MARK.

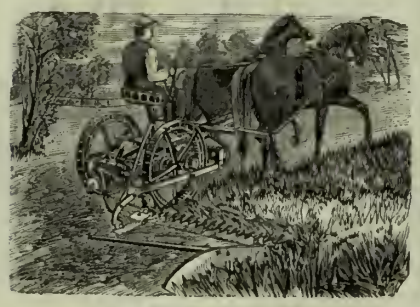
CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

McCormick's Mowers and Reapers.

Everybody knows that McCormick's Reapers and Mowers have a world-wide reputation. McCormick's inventions on these machines have been the most important ever patented in this or any other country. Selling thousands of them in



the older States, in the face of all kinds of opposition, the inventors and makers (who have an immense factory,) have not hitherto pushed the machines on this Western shore, as they now intend to. Farmers can depend upon every machine and all its parts when sent out from the factory of this old established firm. They speak with confidence concerning their machines, as follows:

"Our Improved Advance is the same as last year, the season's work not developing any point of improvement.

"Our Improved Prize Mower we also present just as we made it last year, being so good as to need no change.

"The Dropper we have improved some, having altered the sheave on which the reel chain runs.

"Our Harvester, though equal, if not superior, to any in the market last season, has been greatly improved for the coming harvest in many essential points; so that we can safely recommend it as standing alone, in the front rank of machines of this kind and very far in advance of all competitors.

"To this machine we expect to attach our Self Binder, of which we shall build a few hundred this year, preparatory to manufacturing them on a large scale, which we shall do as soon as farmers become somewhat familiarized with them and have learned to handle them properly.

"We have been selling reapers many years. By this time farmers should know what our reputation is; whether we build good, reliable machines or not; whether we do as we agree and make good our warranty or not. We flatter ourselves, if it is flattery to be proud of a well deserved reputation for honesty and fair dealing, that there can be but one opinion on this point. Knowing our record in the past you may be assured for the future that in dealing with us you will not be imposed upon; that you will get good serviceable machines that will be worth the money you pay for them, and not be a constant source of annoyance and delay from breakages or imperfect construction."

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

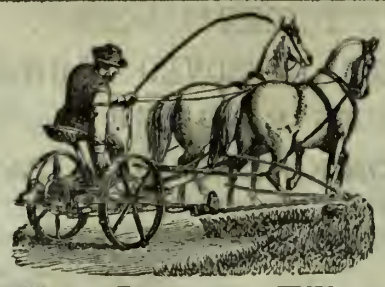
Designing and Engraving at This Office.

We are prepared to do fine Wood Engraving for illustrating Landscape Scenery, Buildings, Machinery, Works of Art, Manufactured Articles, Trade Marks, Seals, Etc. We have a first-class

Machine for Engraving

A portion of the work, which can be finished thereby more perfectly than by the eye and hand alone. Our patrons can depend upon first-class work always, and at reasonable prices. Samples can be seen at our office.

DEWEY & CO.



Buckeye Mower and Reaper.

The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merit. They will do better work and will outlast two of almost every other make of machine.

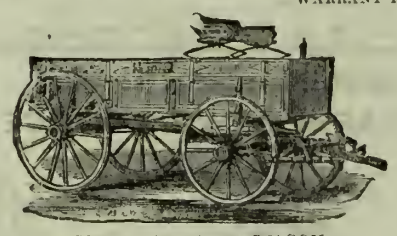
Farmers, BUY A BUCKEYE in preference to all others.

With Adjustable Reels. IRON WHEELS.

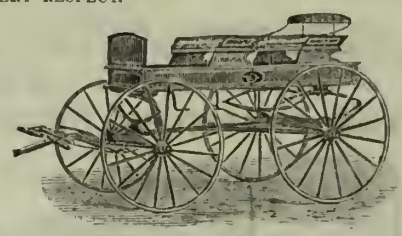
SHORT FRAMES. Springs to raise Cutter-bar.

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.



SCHUTTLER FARM WAGON.



SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

MARCUS C. HAWLEY & CO.,

San Francisco and Sacramento, Sole Agents for the Pacific Coast.

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.
Examinations Ordered and Reported by TELEGRAPH.
Examinations made of Assignments Recorded in Washington.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of Patents and Assignments.
Rejected Cases taken up and Patents Obtained
Every legitimate branch of the Patent Agency Business promptly and thoroughly conducted.
Send for Circular

Our Agents.

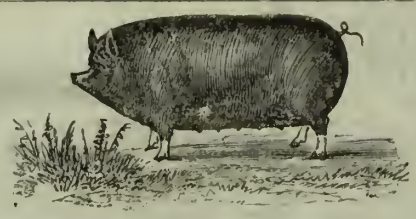
OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
JOHN ROSTRON—California.
G. W. MCGREW—Santa Clara county.
J. M. MCARTHUR—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
J. W. RILEY—San Francisco.
WILLIAM PARTIN—Alameda county.
DR. J. T. JOHNSON—California and Nevada.

Our "Handy Map" Premium.

This "Map of California and Principal Part of Nevada" is printed on tinted paper, 15x18 inches. It gives the county boundaries, railroads and principal cities and towns in both States; the principal mountains, streams and the U. S. land districts and township lines in California. Without claiming completeness, it is the latest and one of the most correct issued. Price 50 cents. FURNISHED FREE (until further notice) to every subscriber to this paper who pays for one year in advance.

Dewey & Co. {224 SANSOME ST} Patent Agt's.



R. S. THOMPSON,

IMPORTER AND BREEDER OF

PURE BERKSHIRE SWINE,

NAPA, CAL.

LIBERAL ADVANCES ON CONSIGNMENTS.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,
19 New Montgomery Street, S. F.
☞Grand Hotel Building.

Napa Valley, near Napa City,

240 Acres of Land For Sale.

The whole or one undivided half interest, at thirty-two dollars per acre. Fenced in five fields. Living water in every field. Orchard and Vineyard in bearing of choice varieties. Buildings good. Terms easy. A great bargain.

STERLING & THOMPSON,
Napa City, Cal.

SEEDS. SEEDS.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

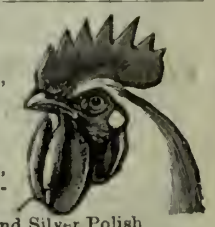
For Sale, wholesale or retail, by

B. F. WELLINGTON,
(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.



Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns.
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED **POULTRY.**

EMDEN GEESE,

Pekin Ducks.

BRONZE TURKEYS.

PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address **M. EYRE, Napa, Cal.**

Please enclose stamp.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers,
No. 224 Sansome street, SAN FRANCISCO.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, MARCH 11, 1876. [Number 11.

Wide Tired Wagons.

As noted lately, there is a law before the Legislature ordering wide tires on the heavy teaming wagons in Santa Clara county. The roads, it is claimed, are destroyed by the narrow tired wheels, hence the law. As the subject is up it is timely to give the experience of an Eastern farmer with wide and narrow tires, the advantage of the former being placed to the horse rather than to the roadway. It shows also how a man who is a little handy with tools may convert his wagon cheaply if he desire. The man of the wide tires writes: "Proprietors of farm wagons and carts, the wheels of which are made with narrow rims, have no adequate idea of the amount of feed and flesh of teams that would be saved if the wheels of their vehicles were provided with rims three to five inches broad. Of course, where the ground is hard, no perceptible advantage will appear in favor of broad-rimmed wheels. Bnt when hauling manure over soft ground, or hauling loads of grain and hay from fields where the wheels sink only two or three inches into mellow soil, if the rims of common wagon wheels are four or five inches broad on the periphery, a team will draw fully one-third more per load than if the rims were of the usual width.

"When the tillable land is dry, the rims of wheels of usual breadth would sink in the soil four or five inches, even when the load would weigh only 700 to 800 pounds. If the rims were broader, the reasoning is that the horse would be able to draw nearly one-half more per load without exerting more force. In order to put this conjecture to a practical test, I purchased an old wagon for $10, the spokes, hubs, axle-arms and springs of which were nearly as good as when new. A set of bent rims for the four wheels was purchased in New York city for $3. The rims were one and a half inches deep by three and a half broad. The expense of putting the new rims on the old spokes was $2. Iron for the new tire one-fourth of an inch thick by three and a half broad, cost $2.78. The blacksmith asked $1 per wheel for setting the tire, which was an exorbitant price. Paint, oil and red drier, $1.50, amounting in all to $24.28. I did the painting and made the box for the wagon myself, when I would have been doing nothing. On this wagon with broad-rimmed wheels, the old horse will draw a ton of coal or stone with the same force, to appearance, as he would take to draw 1,000 to 1,200 pounds on the other wagon, the wheels of which have narrow rims. When hauling muck from the bog-meadow, he will take more and larger loads than he can draw in the other wagon. When passing over soft ground where his feet sink in the depth of the hoofs, the broad rims roll along over the surface as if there were no load on the wagon. There is a great advantage in having the rims of farm wagons broad, say four inches for two-horse wagons."

Cattle Sale.

The *Record-Union* makes the following interesting announcement in a late issue: The State Short-horn Breeders' Association are to have a public sale of stock in April, at Agricultural park in Sacramento. Members of the association have each agreed to put up a certain number of animals from their herds to be sold to the highest bidder. We believe that the whole number thus to be sold is from 50 to 75, and the number may be as high as 100. It is the intention of the association to hold annual sales at different localities in the State, to give our farmers and stock men generally an opportunity to improve their stock by the introduction of better blood. They propose to put up a few animals from each of their herds to afford all an opportunity to gratify their own tastes and judgments in buying. A proper proportion of bulls and cows will compose the number to be sold, so that all may suit themselves in this respect also. We understand that in addition to thoroughbreds, there will also be some grades sold at the same time, so that those who cannot afford to pay for thoroughbreds can still have an opportunity of buying fine animals at a less price. We are glad to see these annual sales of good stock inaugurated, and by this association. While they will encourage the improvement of our stock, the name of the association under whose auspices the sales are to take place will guarantee honorablo dealing, and give public confidence. A catalogue of the animals to be sold will soon be published and distributed for the information of the pnblic.

American Forestry.

The American Forestry Association was organized in Chicago last September. The objects of the society are mutual improvement in the art, the diffusion of information upon the subject of forestry, and the fostering of all interests of forest-planting and conservation on this continent. There was a large committee appointed on correspondence and statistics. The member for California is Bernard Fox, of San Jose. This committee is expected to make a thorough examination of the present condition of the forests of this country, in order that the association may take intelligent action to secure the ends for which organization was effected. The following are the points to be investigated by the committee:

1st. Estimates of the area of woodland, in square miles or acres, and average ages of the trees.

2d. Estimates of their productiveness per acre in cubic feet of lumber and cords of fuel.

3d. Lists of native trees and woody plants, with local and botanic names, and their special value in the arts.

4th. Location of species, relatively to elevation above the sea, to soil, etc.

5th. Natural grouping and consociation of species, etc.

6th. Numbers, kinds and acres of artificial forests planted, and areas protected from cattle in order to encourage the natural reproduction of trees.

A PATENT for the Rancho el Cajon, San Diego county, will be issued in a few days.

Seeder and Cultivator.

The Gorham broadcast seeder and cultivator combined, which is illustrated on this page, has been in use in this State for some time. It is constructed upon the theory that by placing the seed-droppers the greatest practical distance apart, it not only increases the size of the seed-cups, which ensures greater accuracy in measuring the seed, but also enlarges the passages through which the grain flows to the ground, thereby rendering the machine less liable to clog. The seeding device consists of a series of seed wheels or droppers, placed two feet apart, and attached to a shaft that runs through the center of the box. To each of the seed wheels five cups are attached; each wheel is enclosed by partitions on either side that are open at the bottom to admit the grain to the wheel. Now, when the seed wheels are caused to revolve, the cups are drawn upward through the grain, each taking a given quantity, and as it passes around pours it on the beveled surfaces in front of the cup, deflecting the seed into troughs on either side, where it runs in a continuous stream upon the scatterer below.

It will be readily understood by the above description that the essential principle is the measuring and pouring of the seeds, and that this result is produced by a device that cannot cut or injure seed in its passage to the ground.

The scatterer is a distinct fixture that receives the grain from the seed wheels, distributes it equally over every square foot of land, yet being so open in its throat as to pass straw and other foul substances without clogging.

The quantity sown is regulated by different sized gears, placed at the end of the box, which gives the seed wheels different required motions. Grass seed, clover seed, and other small seeds, are sown by inserting a supplemental cup in the grain cups, closing the grain orifice, leaving an orifice proportionally large for the smaller seeds, when the same series of gears are used to regulate the quantity per acre. Thus it is the finest seeds as well as the coarsest grains are distributed with the greatest accuracy.

The Gorham seeder and cultivator is for sale by Keller & Co., of Sacramento. An account of successful experience with the machine is given in our Sacramento correspondence this week, to which we call attention in this connection.

THE GORHAM BROADCAST SEEDER AND CULTIVATOR COMBINED.

SIXTY ONE RAINY DAYS.—According to the observations of Sergeant Beale, of the United States Signal Service, we have had in this city a rainfall of 28 41-100th inches for the season to one o'clock Tuesday afternoon. The first rain fell on October 27th, and we have had since that date 61 rainy days.

THE San Francisco water commissioners just appointed by the Mayor and Supervisors are James M. McDonald, James R. Kelly, Charles Kohler, James O. Pointree and Jacob L. Davis.

CORRESPONDENCE.

Early Plowing and Late Sowing.

EDITORS PRESS:—When I first submitted a few remarks under the head of "Summer Fallow," I should have premised that the "inferences" drawn with regard to early plowing and late sowing were intended to apply to rich valley lands of a loam, clay or adobe nature; and to these, only in such counties as are favored with heavy rainfalls, and, ordinarily, late spring rains. Late seeding, for instance, may be practiced, with far less accompanying risk, in Sonoma, Napa, Alameda, Santa Cruz and parts of Monterey and Solano counties, than it can in those of San Mateo, Santa Clara and San Benito, although the latter lie between and among those first named, are as close to the coast and have soils equally as rich. The former, however, have the advantage of heavier and later rains, and a great portion of them, in the event of a lack of spring showers, have still the fogs (which supply no inconsiderable amount of moisture) to fall back upon. On light sandy soils, like those of the great San Joaquin valley, I should certainly not advocate anything but the earliest, and to the greatest practicable extent, "dry" sowing, with frequent doses of "summer fallow."

The comments of Prof. Hilgard on the article have induced me to say something further on the question, and I trust it will at least have the effect of bringing out the views, if not the *experience*, of one or more of our practical and "horny handed" agriculturists. Prof. Hilgard remarks:

"I cannot see that the risks attending the spring sowing of grain in the Eastern States are not fully as great in California. * * * * * And right here I must differ from your correspondent as regards the propriety of sowing early in cold ground, rather than late and in warm ground, as he advises. Experience elsewhere has abundantly demonstrated that after the grain is once up nothing short of actual freezing of the ground will prevent the rootlets from developing, slowly, but surely, even while the plantlet seems to be doing nothing. There is always a gain in time, provided only the heart is not frost killed."

Though the meaning of Prof. H.'s language in the above is somewhat obscure, inasmuch as at first sight it seems he has misinterpreted my words, and credited me with the very reverse of the course which I advocated, still I presume it was his purpose to impress as *his* conviction that it was preferable to sow in December and January rather than so to do late in February, as *his* remarks are in response to *my* suggestion, or more correctly speaking to *my* inference, that, *where summer fallow was not practiced*, it would prove safer and eventually more profitable to plow in December and January, and allow the land to lie unharrowed and unseeded until the middle or latter part of February, than to both plow *and* sow in cold and clammy ground in the month first mentioned.

I believe Prof. H. will admit that lands of the nature specified are not likely to lose their *surface* soils by the washing of winter rains; the only question therefore left open to discussion is the risk of late as compared with that of early sowing. In the former case we should have to contend with drouths and frosts; in the latter, with floods, weeds, heavy frosts, and, in instances where the grain has made but little headway, also with drouths, although it is *possible* that the early crop may not be quite so easily affected by the last mentioned consideration as the early seeding.

An Analysis of the Rainfall.

By reference to Tennant's tables we find that the rainfall in this city for the past 26 years has averaged in January 5.18 1 5 inches; in February, 3.55½ inches; in March, 2.96 inches; and in April, 1.61 inches, and that the number of days in said months on which it rained averaged as follows: In January, 10 23-100, February, 8 88-100; March, 9 8-100, and in April, 5 46-100. It will be seen at a glance that the excess of rainy days in January over those of February is not in proportion to the excess of rainfall of the first over that of the second month, and readily proves therefore that the rain falls much more rapidly, and consequently in considerably greater masses at one time in January than it does in February. In March again, though the rainfall is much less than in the month preceding it, the number of wet days actually *exceeds* those of February.

Now, the aggregate of rainfall in March and April and one-third of that of February amounts on an average to a trifle over 5¾ inches—a very respectable amount, and sufficient, it seems to me, to insure a crop, when the ground, thanks to early plowing, has become thoroughly drenched, and is properly tilled. I am satisfied that in soil worked in this manner the moisture will rise much more rapidly and will continue to do so far later in the season than in instances such as cited by Prof. Hilgard in his comments, when he says, "How much of the seed has (this season) been put into cold, clammy ground, plowed hastily when really too wet for tillage, the seed sprouting slowly and interruptedly, and struggling through the *pasty* soil with difficulty." I am, moreover, much inclined to believe that a crop grown on the plan I have advocated is more likely to withstand the ravages of drouth and blighting north winds than one which, although it may have escaped the dangers of drowning, rotting, smothering by weeds and freezing in *January*, is obliged to force its way through what, in that month, *was* a *pasty soil*, but from the effects of sun and wind, *is* later a *hard crust*, impervious to air and almost so to water.

There are thousands of acres in this State that are not *plowed* until the middle of February, and in which the seed is not sown until between that time and the 10th of March. It is true that such crops often prove a dead loss, *but* they not unfrequently give very handsome returns—so often indeed do they do so, that I believe as many as three out of five (if not a greater proportion) of the farmers in this State are willing and do take the risk of late sowing.

An Analogy from Sowed Corn.

Many of our Sonoma and Marin county dairymen are in the habit of sowing corn "broadcast" to serve as green fodder for their cows. As it is impossible to use the cultivator under these circumstances, they have to study the best time for and manner of plowing. Experience has satisfied some (I fear, however, very few) of them that *early* and deep plowing is the most profitable, and that where this practice is carried out the moisture will seldom, if ever, fail to rise to the surface and insure a crop; whereas, land that has not been plowed early, has absorbed but little moisture, and that little will not rise at all, *unless* they happen to be favored with late spring rains. If this early and deep plowing, and thorough tillage later in the season, will bring a crop of corn sown in April and May, why should it not do just as well for any of the small grains sown about the middle or latter part of February, or *even* the latter days of March?

RANCHER.

[In concluding his communication, "Rancher" calls attention to the new method of seeding being tested by Mr. Gauldiu, of Sonoma, which was given in our "Agricultural Notes" in last week's PRESS. We await the result of Mr. Gauldin's experiment with interest.—EDS. PRESS.]

Straw Burning Engines Again.

EDITORS PRESS:—In your issue of February 19th, under the heading "More About Straw Burning Engines," Mr. C. Z. Sanders makes a vain attempt to fill up what he calls the blank left in an article published in the RURAL of January 22d, over my signature. If Mr. Sanders would read more carefully he would have seen the names and place of business of four firms who manufacture true straw burning engines. Three of the four are in this State, and the other an Eastern house, represented here by one of the largest agricultural houses on the coast. Mr. Rice is not alone in the field, but claims that he was alone until other parties watched his engine working; but this question is about to be settled in court by the interested parties. Mr. Sanders says that if his memory of dates is correct, it is ten years since the idea occured to Mr. Enright, of San Jose, that it would be just as feasible to use steam power with threshing machines as to use steam power in a saw mill or elsewhere. I will refresh his memory a little. It is 15 years since Mr. Enright made his first portable engine (1861) in Napa. In 1862 he made another engine in Watsonville. Mr. Enright obtained two patents, dated July 20th, 1875, and November 2d, 1875, on straw burners. I will at some future time give a more detailed account of these patents.

The First Steam Threshing

In California was done in 1860. Mr. John Crosby, of San Francisco, sold an Owens, Lane & Dyer engine to Mr. Steinbach; this was a stationary engine, intended for a saw mill; Mr. Enright was engaged to run this engine (stationary); the first day he threshed 950 sacks (100 pounds each), on the Salvador ranch, Napa valley. Messrs. Baker & Hamilton sold their first threshing engine in 1862, to the Hon. John Bidwell. John Crosby imported six portable engines for steam threshing in 1861, but they were rather too small for the work. Mr. S. takes upon himself to speak for the State; thus, in reply to that portion of my article mentioning the importation of a fire box straw burning engine by an English firm, he says: "Of course we are very much obliged, but California presents her best compliments to England with thanks, but thinks she can supply herself for a long time to come." As Mr. Sanders is an Englishman, not many years from home, this looks to me like a strong speech; but I am glad to hear that he has so soon become Americanized, and will, I think, eventually make a good Californian. From my experience of burning straw I feel it my duty to state most emphatically and distinctly that the difficulties Mr. Sanders speaks of in burning straw do not exist if the engineer knows how to fire. He has had but little experience in straw burning engines, or he would not say that there is an enormous quantity of straw burned during a day's run, and that it makes an enormous quantity of clinkers and cinders, that it is a difficult problem that our engineers are required to solve, and that a compact mass of stuff forms two or three inches thick, completely covering the flue sheet, thereby stopping the draft until it is removed. I never experienced any of these difficulties in three months' threshing, and I say again they do not occur. Brown Bros.' engines gave eminent satisfaction, with all the above difficulties in the way, according to Mr. Sanders' own statement. J. W. RILEY.

Ventura Facts and Prospects.

EDITORS PRESS:—In your last issue I see an extract from a letter to the *Western Farm Journal*, in which the writer states that one of his neighbors intends shipping 1,000 head of hogs monthly. The design was to say 100 head monthly, or the amount of $1,000 each month. The 1,000 head of hogs per month, from a farm of 400 acres, would remind one of the 1,200 pounds of honey shipped to Oregon on a sailing vessel, where the writer intended to have said 12 tons. If we continue to make such statements we shall get our reputation up for large expectations, at least.

Last night we had another splendid rain. It began to sprinkle about noon, and by 8 o'clock at night the rain was pouring and continued nearly all night and no wind. This morning the sun came out in full splendor; weather warm, while at a few miles distant the mountains are covered with snow, giving us a pleasing change in our beautiful scenery.

Our farmers are nearly all done sowing and have plowed their corn ground the first time. I have never known the farmers to have their work done so early in the season as now. This season, so far, seems to be the best we have had since 1867 and 1868. If no adverse influences come upon this county we may with good reason expect as large crops as we have ever had. It is not too late for frosts and hot winds. One season since I have lived in this valley we have had all the early barley ruined by heavy frosts, which came three nights in succession, followed by three successive days of hot east wind. Between the rains this winter we have had some hot winds but not strong.

Saticoy, February, 28th 1876. E. B. H.

Tile Drainage.

EDITORS PRESS:—A query appeared in your valuable paper a few weeks ago, from a subscriber at Fulton, asking information on the subject of tile drainage. Now, I am a little surprised at such a query emanating from a place not over two miles from a successful tile manufactory, where tile has been made for three years, and where the practicability of tile drainage has been thoroughly tested with the most satisfactory results.

As nothing has ever appeared in your columns about this factory, a few items may be of interest to your many readers. During the summer of 1873 some parties went East and purchased a regular tile machine, and commenced the manufacture of tile two and a half miles northwest of Santa Rosa. Farmers were afraid to invest in them to any extent, believing the adobe soil of California was incapable of successful drainage. The parties struggled hard for two years, and finally abandoned the business. Messrs. Bennett & Wall, two farmers living in the neighborhood, leased the yard last summer, and made several kilns of tile, which were all engaged before they were burned. Now, there is not a rod of tile on the yard, and the parties who have their ditches dug are compelled to wait until another kiln is burned.

Messrs. Holmes, Adams and Pinkerton have each laid several hundred rods, and are so well satisfied with the results that they will go into the business quite extensively as soon as they can procure the tile. Mr. Holmes laid about 400 rods during the winter of 1874-75 in adobe land that was so wet he could not plow it before April; now he plows it as soon as any land on his ranch. He has over 900 rods of ditch already dug, and is waiting for the tile to put in them.

Mr. Adams has laid over 300 rods in adobe soil; he is well satisfied with the experiment. In one place where water used to stand six or eight inches deep all winter, he put in tile and the result was that in three hours after one of the heaviest rains the pond was perfectly dry.

Mr. Pinkerton put in about 700 rods; he is well satisfied with the result. Other parties have tried them and all that have been laid to a proper depth have given satisfaction. Many persons jump at conclusions without understanding the principles upon which they are based. A few ideas on the

Theory of Underdraining

May be of interest to some one who has never studied the subject. The successful germination of seeds requires three distinct properties, heat, air and moisture, either of which being absent the seed will sprout but imperfectly, if at all. None of the elements of the soil are required for the germination of the seed. Soil is composed of particles of all sizes and shapes. These, in their natural state, are placed together so that interstices will exist through which air can freely circulate. When the soil is saturated with water, these pores or air chambers are filled to the exclusion of air. This water, having no natural or artificial outlet, must pass off by the slow process of evaporation. Hence, air is entirely excluded, and evaporation chills the air, lessening in a large degree the amount of heat required for the nourishment and growth of the plant. The process of underdraining removes this surplus water and admits of a free circulation of air through its natural channels.

Rain in descending to the earth gathers from the air a vast amount of fertilizing matter; this (where land is properly underdrained) is absorbed by the soil, while the water finds its way to the drain and passes off, leaving the pores open for the free circulation of the air. When there is no outlet for this surplus water to pass through the soil this fertilizing matter is washed into the stream and is lost.

While our southern and inland counties are pondering over the great problem of irrigation for the successful maturing of crops, we of the northern coast counties are equally interested in how to dispose of our surplus water. This problem is now being rapidly solved by a thorough system of underdraining. When we have once completed this system, we will be in doubt no longer about our harvest, but will sow our crops early without expecting them to drown out by repeated floodings. We are now compelled to wait until spring to do the most of our seeding. Should the rains cease early and the fogs fail to come at their usual season, we will raise but a poor crop. T. S.

Santa Rosa, Cal., March 1st.

HORTICULTURE.

Cherry Culture.—No. 5.

Pinching—Continued.

As I said in my last, we must use our judgment and thinking faculties as to the whys and wherefores, for there is such a thing as pinching too much at a time. After I have pinched all below the head of the tree, I let the trees rest 10 or 15 days, or until the branches in the top get a good start. Then I pinch everything clean but the leader, in every main branch in the tree. As I said before, that takes its own way all through the growing season. The over-pinching that I spoke about a little while ago is very injurious to the tree, causing stagnation of sap, resulting in gummy ulcers, or blisters between the two barks—which will be explained under the head of gum. The roots keep forcing the sap up into the top of the tree and if the branches are all nipped off, the sap is brought to a dead standstill, and there is no possible way of escape. The results are running sores and finally the death of the tree. You know very well what the consequences would be if you were to cut your head off, or cut the limbs from your body. So it is with the tree. All the branches in the top are so many heads, so to speak, or the point where wood is taken on. Therefore they cannot all be removed at once. If only the side shoots are kept back, the leader or head of the branches receives the current or flow of sap and maintains and carries on life and vitality in the tree.

A gentleman asked me a few days ago what good it did the tree, or what I gained by the operation, and he was an old fruit grower, but not very largely in cherries. He had never been in my orchard, so I could not answer his questions more intelligently than to show him the trees and let him see the facts in the case, and judge for himself. He decided in a few minutes that I was right, and said he would adopt the same treatment.

One Object in Pinching,

Or spur pruning, as some people call it, is to keep back surplus wood and create fruit spurs, throwing all the little twigs and branches into fruit, thereby utilizing all the wood the tree can produce, not allowing it to grow at the tree's expense and then have to cut it off. And another object in side shoot pruning is to make the tree produce fine large cherries, such as would make your mouth water to look at them, all closely nestled around the big wood and no long slim branches hanging down like a weeping willow. All such branches are always more or less sunburnt on the top and full of worms, one of the evils tending to the destruction of the tree. So much may be attributed to long pruning or not pruning at all, and the result is another point made in favor of short pruning and pinching.

My Ambition

Is such that if I cannot grow as good an article as anybody else, I do not wish to follow the business, but would sell out and go where trees would not grow. But if I can grow better and larger cherries than any other cherry grower, I am going to do it. So, brother cherry growers, you had better be careful what kind of treatment you give your trees. If you beat me I will just take a run over to your orchard and see how you do it.

I have been very particular in explaining all these different processes and modes of operation, so that you may be able to understand what I mean and how to practice it yourself.

To yon who are engaged in cherry culture and do not understand the true principles upon which success depends, it is for your special benefit that I give you the contents of my diary of 35 years of hard earned experience. If you have the soil and climate that I have described, with the necessary preparations thereon, and plant as directed, planting nothing but vigorous growing trees, and follow the different modes of treatment as I have given them, being prompt in the performance of them at the proper season of the year, allowing nothing to hinder yon from attending to it at once, success is yonrs, and no mistake. Spare neither time nor money in trying to produce the best that goes to the market. Work hard for credit to yourself as a good fruit grower and practical orchardist; at the same time gain a good reputation for your orchard far and near.

Never nnder any pretense take the shears into your orchard, but especially do not to your cherry trees. Take a sharp knife with a smooth edge. Even the men that use shears say they are not as good as the knife. Do not allow anybody to make you believe your cherry trees do not need any pruning.

* * *

Cherry Vale, San Jose, Feb. 14th, 1872.

How to Make a Fruit Ladder.

Editors Press:—You request me to describe more particularly how I construct my fruit ladders. It is simply thus: For a 12-foot ladder my sides are one by three inches of the common mountain pine, free from knots. I place them upon my shop floor (the gronnd would do as well if I had no shop) on their edges, with the foot to a crack or straight edge, so as to have everything square. I then place the two ends for the foot just two feet apart, and for the top four inches. My strips for steps I split from any old boards which are sound and one inch thick, making them two inches wide (three for the lower ones are best), and eleven in number. Sawed strips would be more convenient than split. The first is nailed just 12 inches from the bottom, the rest 12 inches from top to top, except the last two, which are 15 inches, the top one being four inches below the top. I use eightpenny nails, and put two in each end, which is all that is necessary. I then turn it over and nail one strip about three feet from the bottom, and one six inches from the top, and the ladder is done. Any boy who can handle a saw and hammer can make one and not be compelled to carry so much lumber through the orchard. Shorter ones would not necessarily be so wide at the bottom, while a 16 foot ladder would be better a little wider, say three feet, and perhaps four inch sides would be best for one of that length, but three inch sides are stout enough for a 12-foot ladder. I also take heavy wire (old pail bales are good) and make hooks to hang my pails on the limbs while gathering fruit. I always use old tin pails to gather in; they do not bruise the fruit as haskets do; they are light and will hold as much as a man wants to handle in a tree top. A 12-foot ladder need not cost over 25 cents, besides the time of nailing together, 52 nails are enough. J. B.

El Dorado Co., Cal.

Oil of Roses.

Editors Press:—Having had some little personal experience in the preparation of oil of roses and rose water, I give it for the benefit of those desiring, like Mr. Hyde, to make a trial of the ability of California to produce this perfume.

Oil of roses is manufactured to some extent in the south of Spain. At Malaga I have seen two and three ounces made from a single charge of between 300 and 400 pounds of leaves. These are brought in from the country in sacks, as soon as possible after gathering; any that may have heated from being kept too long are carefully excluded; the fresh leaves are then salted pretty strongly, very much as you would put up sauer kraut, and thus preserved until a sufficient quantity for a charge is collected; the larger the quantity worked at once, the more of the precious oil is obtained, proportionally.

The leaves, brine and all, are finally packed into a zinc-lined distilling cask, on a false bottom, beneath which, steam, from pure water boiling in a freshly cleaned boiler, is then admitted. These precautions as to cleanliness are very essential to the production of a first-class article. Before admitting the steam, it is examined as to perfect freedom from all odor, and the water is replenished during the operation, so as to ensure the prevention of overheating of any part of the boiler walls, which might contaminate the product. The steam should also be under gentle pressure only, as a high temperature imparts a strong taint of boiled greens to the oil.

The turbid liquid that flows off from the condenser (which should be of block tin or strongly tinned copper) is "rose water," with droplets of oil floating on and in it. The largest part of the oil separates at once and swims on the surface; but by allowing the water to stand for some days, another portion collects on the surface and may be taken off. If there is a convenient market for the rose water as such (about 15 gallons being produced for ever 300 pound chargo) it is sold after it has, by standing exposed to the air, lost the green herb and honey flavor, and acquired the characteristic rose scent.

Should there be no market for the rose water, it is put into the boiler when the next charge is to be distilled. As the oil contained in the rose water is as much as can be held by the water, the oil product of the second run is greater to that extent.

Precisely the same mode of proceeding is employed in the manufacture of the oil and water of orange and lemon flowers, and it is a curious fact that when freshly made, these two oils can hardly be distinguished from each other by their odor, which in both resembles that of high flavored honey. The characteristic perfume is in both cases acquired after standing some time exposed to the air.

As to the production of the oil and water of roses—and why not that of orange flower also—in California, I see no reason to doubt that in the southern part of the State it could be made as good as anywhere in the world. Not so, however, within reach of the "bay climate," where the scent of flowers is both faint and indifferent in quality, from the lack of the continued intense heat of the sun, which seems necessary to bring perfumes to perfection. I have repeatedly made rose water from roses grown in Northern Mississippi, where their scent is greatly superior to any I have observed hereabouts. It was good in quality, but very much weaker than it would have been if made from the same amount of material in Spain, and did not keep well.

I hope Mr. Hyde will be able to settle the question experimentally this season, and should he fail to make convenient arrangements for himself, I should be pleased to make a trial with such material as he may furnish, in the laboratory of the agricultural department.

Eugene W. Hilgard.

University of California, March 3d, 1876.

The Dairy.

Point Reyes Practices.

Editors Press:—In the Press for January 1st, 1876, you presented your readers with a diagram of the creamery of Mr. Henry Claussen, at Point Reyes, with a few general remarks thereon, to one of which we took exception, thinking it a little strained, but as india rubber will bear stretching, we will leave it to care for itself and endeavor now to answer in a more succinct way than we would otherwise desire, had we more time and ability, the inquiries made by your correspondent, Mr. Hall, of Del Norte, in Press of 12th instant. In passing we would say that we think any one desirous of obtaining a good idea of the working of any dairy would be well repaid for the time and expense necessary in making personal inspection of such dairy, and having answered upon the spot the numerous pertinent questions that would be suggested by such inspection.

A Very Careful Test

Made on the 23d instant at my dairies at Point Reyes, gave the following results:

From milk by deep-setting, with water at 55° Fah., 26 pounds of such milk gave one pound of butter and one and eight-tenth pounds of skim cheese.

The same day and date, 25¼ pounds of milk shallow-setting, gave one pound of butter; the milk was sour at skimming and fit only for hogs.

Of course, as the season advances and the grasses mature, the yield of butter to the given quantity of milk will be greater, and there will be a greater amount of cheese. I am sure if I could reduce the temperature of the water used for deep-setting to from 42° to 47°, the yield of butter would be in excess of the shallow-setting at any season of the year. Great care and much experience is necessary in keeping and preparing the cream for the churn from deep-setting in order to get all the butter.

Preparing the Cream.

One essential with us is to thoroughly commingle the cream, that is, so that each skimming is equally mixed with all the previous skimmings and the whole kept stirred, say from four to five times a day and until it has a smooth, oily look. The cream has to be kept as nearly as possible at a temperature of 57°; and for no longer time than 24 hours in summer and 48 hours in winter before churning; thoroughly commingle and perfectly sour all the cream. We accomplish this in many ways; by sometimes adding a pailful of milk directly from the cow; sometimes by taking a portion of the mass of cream and placing it in a hot bath, careful not to have the water bath too hot, and then returning the cream so treated to the other portion of the mass. Sometimes we help to sour the mass by mixing buttermilk with it.

Churning.

To churn the cream so prepared, we raise the temperature to 63° or 65°, according to the state of the atmosphere, by using the hot bath, being very careful that the heat is uniformly applied to the mass, and not too great. Never scald the cream. On the first showing of butter in the churn we then lower the temperature to 60° by adding cold water.

Pork or Skim Cheese.

A word as to the comparative value of the milk after being skimmed and fed to hogs or made into skim cheese. I think by careful calculation, that eight-tenth pounds of the cheese is equal in value to all the sour milk from shallow-setting fed to hogs. This leaves me one pound of cheese (from each 25 pounds of milk) as a gain for deep against shallow-setting; the value of which, if added to the price received for the butter, would be equivalent to quite an addition thereto.

We fear, Messrs. Editors, that without exhausting the subject, we have already stretched this article too much, and close by saying we are ever cheerful to give all information in our power, but prefer to talk rather than write.

Henry Claussen.

Point Reyes, Cal., Feb. 28th, 1876.

[We thank Mr. Claussen for his statement of dairy experience. This style of information is just what we need for the improvement of dairying in this State. We want to know every dairyman's experience and experiments and the manner of his working. Thus each dairyman can review his own practice in the light of another's experience, and general progress and improvement will result. Thus, too, it will appear how the milk can be used to the best advatage, and the fullest rewards be gained for labor. We grant, Mr. Claussen, that it is easier to talk than to write, but valuable experience written will go far beyond the reach of any man's voice and do good wherever it goes. We trust our dairy readers will, all of them, write us their methods and success.—Eds. Press.]

To Cure a Self-Sucker.

Editors Press:—To provent a cow from sucking herself, make a pin of hickory or some other stout, hard wood, eight or nine inches long, five-eighths of an inch in diameter in the middle, tapered each way, and sharp at the ends. Cut a recess in the middle five-eighths of an inch long, and one-eighth deep. Insert this through the nose by first running a small jack knife blade through. Then crowd in the pin to the recess Have the pin smooth and the corners on the recess a little rounded. This will not hurt the cow or cause her any inconvenience, and prove an effectual remedy for self-sucking. I have tried other arrangements and this is the most simple and complete thing I ever saw used. M. S. B.

Santa Monica, Feb. 25th, 1876.

Poultry Yard.

M. Eyre, Jr., Napa, Cal., Corresponding Editor of this Department.

Feed for Grown Fowls.

I have already described in the Press my mode of feeding young fowls. Chickens, while growing, may be fed all they will eat; but, when they have attained their growth and commenced to lay, hens should not be allowed to grow too fat. Many fine fowls, especially the Brahmas, are completely spoiled by over-feeding. Chicks from eggs laid by a fowl too fat are weakly. A misshapen egg is almost always a sure sign that the hen is too fat. The purchaser of a fine pair of Brahmas, anxious to take the best care of them, may, by over-feeding, totally destroying the laying qualities of the hens and thereafter probably decry the breed as poor layers, when in fact he alone is to blame.

Hens allowed to roam, having access to the barnyard and to the straw pile, with plenty of green grass, etc., around, require very little food. On many farms it is folly to feed at all; certainly over a quart of grain to 100 fowls, daily, is too much. My fowls, scattered over the fields with nothing but the pasture and the bugs they pick up, are fed a quart of soft food in the morning and a pint of grain at night to each 25. Those confined in corrals are supplied green food, mostly grass, which I keep growing in each inclosure. They are fed meat twice a week during winter. I boil up the "pluck," or head of a beef, in a large caldron, with the best of the kitchen refuse and cabbage, potatoes, onions, etc., at times thrown in. The 20-gallon boiler is filled with water and the mess, when nearly cooked, thickened with bran and shorts. This forms the morning food three or four days in the week. Other mornings the mixture is made of three parts bran and one part middlings, or two of bran and one of shorts, mixed with hot water into a thick crumbling mass. Fowls confined in pens are fed, of soft food, a quart to 10 or 12, according to breed and size. At night they are given at the most a pint of grain to each dozen birds, and often less. They have lime, crushed oyster shells, pounded bone and charcoal. Corn should be fed very sparingly, either whole or ground, to laying hens; it is too fattening, and when fed constantly is liable to cause derangement of the liver in our climate. I use it on cold and wet days and never in summer. In summer time when grass is dried up, I feed cabbages, giving them whole. I have already described the diseases most common in California, with their remedies. After a little experience a sick fowl among even six or seven hundred may be observed at once and her disease generally rightly diagnosed. It should be a strict rule to remove a fowl the moment it appears sick, and keep it totally separate from those in health.

Raising Ducks.

Hens make the best mothers for ducks. The mode of setting the hen, freeing her from lice, etc., is given in the Press of February 26th, in the article on "Raising Chicks." Leave the ducklings, when hatched, in the nest until 24 hours old; anoint the head of each one sparingly with the same ointment used for chicks; take each duck and with a sharp scissors cut the down from the hinder parts on both sides, from the leg to the tail, and around the vent. This prevents the young from becoming wet and bedraggled, the cause of most deaths among young ducks. Make a pen by nailing three boards eight or 10 feet long, and 12 or 15 inches wide, together at the ends. The hen may be let loose in this; she will fly over, but finding that the ducks do not follow will soon return to them. Place a shelter in one corner, in which she may have the young at night and during the rain. Place a shallow pan, not over an inch and a half deep, in the ground; fill with water, adding a few tablespoonfuls of meal. Bran and shorts, cooked cornmeal, bread crumbs, each mixed with milk if possible, boiled mush, scraps from the table and cooked meat, cut very fine, are all good. Their food should be mixed thin, and with milk if it can be had. One of the best mixtures I know of is to take a large pan of milk, sour or sweet, stir in shorts and then add the green seed stripped from the common duck weed, until a pretty thick mass is made. After they are five weeks old they may be fed whole grain, wheat, rye or corn; do not feed grain until they are at least a month old. Do not let them out of the pen until they can jump over it, and never allow them to run in the wet grass when young.

Ducks pay well in California, commanding a higher price than chicks. They are very easily reared, with more success very often by those who have no pond or stream on their premises, and are subject to few diseases. The young should be fed often, and if freed from lice and not given too much water they can be reared with scarcely a death.

Mortality and Remedies.

Editors Press:—My place is at Tomales, Marin county. The ranch is near the coast, but sheltered from winds and fogs by intervening hills. Two years ago I had 700 hens and ducks, mostly hens. I lost during the winter, which was a severe one, 200 hens and 50 ducks. They died mostly in the night. I examined into the cause by opening the birds immediately after death, and found the water in their crops very hot, throats very foul, and inflammation was traced to the lungs, which, with the liver, was much diseased. They seemed to be affected much as horses are with the epizootic, or children with the croup. They were worse towards and during night. They evidently took cold from continued wet weather.

One symptom of the disease was great thirst. They were seen frequently at the water fountain, drinking almost constantly to allay thirst from fever. Sometimes they appeared to suffer greatly as in pneumonia.

I propose the following remedies for the trouble: Avoid over-feeding; use sour milk when practicable, mixed with bran. Now and then feed a little cayenne pepper at the commencement of the illness. Soak the food, say twice a week, in a solution of bluestone, precisely as prepared for seed wheat. One of my neighbors added a little pulverized sulphur and assafœtida, and lost no hens when so treated. When I commenced soaking feed in bluestone solution, the mortality fell off rapidly. I have continued the practice this winter and have lost none to speak of. J. L. Blake.

A Curious Phenomenon, frequently met with in the Indian ocean, the real cause of which has not yet been ascertained, is the existence off Malabar, and in certain spots along the Coromandel coast, of vast mud-banks, and of tracks of mud suspended in the sea, wherein many kinds of fish find abundance of food, immunity from much disturbance in the surrounding element, and a locality in which to breed. The exact cause of the existence of these large tracts of soa wherein mud remains in solution is still a mystery; but at any rate the ocean is so smooth that, even during the hight of the southwest monsoon, vessels can run for shelter into their midst, and once there are as safe as when inside a breakwater.

Cement for Marble and Alabaster.—Mix 12 parts of Portland cement, 6 parts of slacked lime, 6 parts of fine sand, and 1 part of infusorial earth, and make up into a thick paste with silicate of soda. The object to be cemented does not require to be heated. It sets in 24 hours, and the fracture cannot readily be found.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Grange Directory.

[Secretaries of Granges will please notify us if incorrect.]

California State Grange.

OFFICERS FOR 1875-7.

Master—J. V. WEBSTER, Brooklyn, Alameda Co.
Overseer—T. A. GAREY, Los Angeles, Los Angeles Co.
Lecturer—J. W. A. WRIGHT, Borden, Fresno Co.
Steward—NELSON CARR, Bennett Valley, Sonoma Co.
Assistant Steward—M. WOODHAMS, La Honda, S. Mateo Co
Chaplain—J. M. HAMILTON, Guenoc, Lake Co.
Treasurer—J. B. CARRINGTON, Denverton, Solano Co.*
Secretary—AMOS ADAMS, Franklin, Sacramento Co.*
Gate Keeper—J. B. SAUL, Napa, Napa Co.
Ceres—MRS. MARY E. IVENS, Cambria, S. Luis Obispo Co.
Pomona—MRS. S. C. BAXTER, S. F., San Francisco Co.
Flora—MRS. VITAL E. BANGS, Modesto, Stanislaus Co.
Lady Assistant Steward—MRS. NELSON CARR, Bennett Valley, Sonoma Co.
*P. O. Address, for official business, San Francisco.

Executive Committee:

J. V. WEBSTER, Chairman, Brooklyn, Alameda Co.
A. D. LOGAN, Princeton Colusa Co.
H. M. LEONARD, Santa Clara, Santa Clara Co.
J. M THOMPSON, Suscol, Napa Co.
W. S. MANLOVE, Sacramento, Sacramento Co
WM. SIMS, Buckeye, Yolo Co.
C. H. COOLEY, Cloverdale, Sonoma Co.

General Deputies.

County.	Deputy.	Post Office.
Alameda.	Alfred T. Dewey.	Oakland.
Fresno.	J. W. A. Wright, (W. L.)	Borden.
San Francisco.	Amos Adams, (W. S.)	40 Californin St.
San Francisco.	T. H Merry.	San Francisco.
Sacramento.	Dr. E. S. Carr.	Sacramento.
Solano.	John B. Carrington,	Denverton.

County Deputies.

Alameda.	Thos. Heller.	Haywards.
Butte.	W. M. Thorp.	Chico.
Colusa.	Jacob Meyers.	Grand Island.
Contra Costa.	Nathaniel Jones.	Lafayette.
Lake.	H. A. Oliver.	Guenoc.
Marin.	H. F. Taft.	Nicasio.
Mendocino.	Thos. Mewhiuny.	Pomo.
Mendocino.	W. D. White.	Ukiah.
Merced.	J. L Crittenden.	Special Deputy
Merced.	H. B. Jolly.	Merced.
Nevada.	H. S. Hatch.	Indian Springs.
San Joaquin.	W. L. Overhiser.	Stockton.
San Joaquin.	J. W. Kerney.	Lodi.
San Mateo.	M. Woodhams,	La Honda.
San Mateo.	L. C. Steele.	Pescadero.
Santa Barbara.	O. L. Abbott.	Santa Barbara.
Santa Clara.	L. A. Wilcox.	Santa Clara.
Siskiyou.	J. S. Mathews.	Fort Jones.
Solano.	R. C. Haile.	Suisun.
Solano.	J. C. Merryfield.	Dixon.
Sonoma.	B. B. Capell.	Healdsburg.
Sonoma.	G. W. Davis.	Santa Rosa.
Sonoma.	W. W. Chapman.	Petaluma.
Ventura.	E. B. Higgins.	Saticoy.
	NEVADA.	
State of Nevada.	A. J. Hatch,	Reno.
Douglas.	J. R. Livingston.	Genoa.
Esmeralda.	Kimber Cleaver.	Mason Valley.
Humboldt.	B. F. Kilev.	Paradise Valley.
Elko.	A. J. Tiller.	Elko.

Farmers desiring to organize Granges can apply to J. V. Webster, (W. Master,) Brooklyn, Alameda Co., Amos Adams, (W. Sec'y,) 40 Californin street, S. F., or to the nearest Deputy to their locality.

RECENTLY APPOINTED DEPUTIES.—The following deputies have lately been appointed by Worthy Master Webster:

County.	Deputy.	Post Office.
Placer.	A. J. Soule.	Lincoln.
Sacramento.	W. S. Manlove.	Sacramento.
San Luis Obispo.	M. Motherseed.	San Luis Obispo.
Tulare.	W. Underwood.	LeMere.
Sutter.	G. Ohleyer.	Yuba City.
Amador.	Van Derpool.	Plymouth.

Pomona Granges.

No. 1.—Anaheim, Los Angeles.
No. 2.—Fresno, Fresno.
No. 3.—Suisun, Solano.
No. 4.—Santa Rosa, Sonoma.
No. 5.—Napa, Napa. J. M. MAYFIELD, M.; J. W. WARD, S.
No. 6.—Stanislaus, Modesto, H. W. BROWSE, M.; V. E. BANGS, S.

California Subordinate Granges.

[This list contains the names of Masters and Secretaries so far as reported to us, elected to serve during the year 1876. In Granges not reported we continue the names of last year's officers. Secretaries and others will greatly oblige us by making needful corrections.]

EXPLANATIONS.—The P. O. address is given only where it is different from the name of the Grange.

Grange and P. O.	Master.	Sec'y.
	AMADOR COUNTY.	
PLYMOUTH.	J. SALLEE.	S. C. WHEELER
JACKSON VALLEY.	W. H. PROUTY.	J. C. HAMRICK
SOUTH SUTTER.	THOS. BOYCE.	G. B. RICHARDS
	ALAMEDA COUNTY.	
CENTERVILLE.	J. M. HORNER.	M. B. STURGES
EDEN, Hayward's.	J. RUSSELL.	WM PEARCE
LIVERMORE.	D. INMAN.	O. R. OWENS
SUNOL.	E. M. CARR.	S. W. MILLARD
TEMESCAL, Oakland.	C. BAGGE.	JOHN COLLINS
	BUTTE COUNTY.	
CHICO.	A. HENRY.	H. W. HASKELL
EVENING STAR, Nelson.	A D NELSON	A M WOODRUFF
HAMILTON, Biggs St'n.	T. A. ROGERS.	ANSON BROWN
NORD.	J. B. CLARK.	MRS. O. A. COLBY
	CALAVERAS COUNTY.	
CALAVERAS, J'ny Lind.	M. F. GREGORY.	R. THOMPSON
	COLUSA COUNTY.	
ANTELOPE VALLEY.	H. A. LOGAN.	P. PETERSON
CENTER, Colusa.	D. BEBEE. MRS.	CARRIE WEBLEY
COLUSA, Colusa.	J. R. TOTMAN.	R. JONES
FRESHWATER, Colusa.	P. S. PERDUE.	R. A. WILSEY
FUNK SLOUGH, Colusa.	G. H. ABEL.	IDA FULTON
GRAND ISLAND.	J. MEYERS.	H. D. STRAWTHER
PLAZA, Jacinto.	M. KENDRICK.	J. W. BOWERS
PRINCETON	R. R. RUSH.	P. H. SCOTT
SPRING VALLEY.	B. LUCAS.	T. SINGLETON
WILLOWS, Princeton.	J. R. TROXELL.	L. D. BROWN
	CONTRA COSTA COUNTY.	
ALHAMBRA, Martinez	J. STRENTZEL. MRS.	M. B. LANDER
ANTIOCH.	JOSIAH WILLS. MRS.	S. A. SELLERS
DANVILLE.	D. N. SHERBURNE	MARY LYNCH
POINT OF TIMBER.	J. E. W. CARRY.	G. W CARTER
WALNUT CREEK.	M. S. GRAY.	R. M. JONES
	DEL NORTE COUNTY.	
ELK VALLEY, Cres nt Cy.	W. R. REXFORD.	W. B. SMITH
NORTH STAR, Smith's Riv.	J. B. BAILEY.	W. C. BAILEY
	EL DORADO COUNTY.	
CLARKSVILLE.	P. R. WILLOT.	I. MALTBY
EL DORADO.	J. M. B. WEATHERWAX	MISS C. J. SHELTON
PILOT HILL.	P. D. BROWN.	W. TAYLOR
PLACERVILLE	WM. WILTZE. F. M.	DICKERHOFF
SUTTER MILL, Colomn.	J. G. O'BRIEN.	H. MAHLER
	FRESNO COUNTY.	
ADAMS, Big Dry Creek.	T. P. NELSON.	T. H. WYATT
BORDEN.	E. S. RUSSELL.	CHAS. T. BADGER
FRESNO, Fresno City.		
GARRETSON, King's R.	JOS. BURNS.	H. C. HIGBY
KINGSBURG, W'tville.	J. W. TRABER.	W. LEVERMORE
RISING STAR, Panochi.	J. N. CANFIELD.	G. E. HINKLEY
RIVERDALE, Fresno City.	C. H. WELLING.	H. PRICE
SYCAMORE.	A. C. BRADFORD.	J. A. ALLEN
	HUMBOLDT COUNTY.	
ELK RIVER, Eureka.	T. MEYER. MISS	E. M. WILLIAMS
FERNDALE.	J. O. DUNGAN.	E. C. DAMON
KIWELATTAH, Arcata.	G. B. KNEELAND.	C. H. DANIELS
MATTOLE, Petrolia.	S. GOFF.	DAVID SIMMONS
ROHNERVILLE.	H. S. OASE.	S. STRONG
TABLE BLUFF.	B. W. POLLARD	M. FERRIER
	INYO COUNTY.	
BISHOP'S CREEK.	G. W. MCOROSKY.	G. COLLINS
INDEPENDENCE.	J. W. SYMMES.	W. A. CASSIDY
LONE PINE.	J. J. MCCALL.	A. H. JOHNSON
	KERN COUNTY.	
BAKERSFIELD.	O. B. ORMSBY.	J. T. ISH
CUMMINGS' VAL'Y, Tehaichipa.	G. THOMPSON.	T. YATES
LINN'S VAL'Y, Glenville.	C. LINDSAY	E. SMITHWICK
NEW RIVER, Bakersfield.	W. NEWTON.	S. G. BAKER
PANAMA, Bakersfield.	F. P. MAY.	J. B. RUMFORD
TEHAICHIPA.	M. A. TYLER.	EMMA PREWETT
WELDON.	J. B BATZ.	JAMES SWAN
	LAKE COUNTY.	
GUENOC.	J. M. HAMILTON.	T. W. WHITINGTON
KELSEYVILLE.	J. H. RENFRO.	T. ORMISTON
LAKEPORT.	CYRUS CUTLER.	J. W. EVERETT
LOWER LAKE.	C. L. WILSON.	LUCY S. WILSON
UPPER LAKE.	J. E. ROBINSON.	G. A. LYON
	LASSEN COUNTY.	
LAKESIDE.	G. H. BANGHAM.	E. T. SLUCKFOAD
LASSEN, Susanville.	J. JENSEN.	J. N. LONG
	LOS ANGELES COUNTY.	
ALLIANCE, El Monte.	J. D. DURFEE	E. M. HASKALL
AZUSA, El Monte.	IRA S. THOMPSON.	J. G. PRESTON
COMPTON.	C. W COLLINS.	F. V. KIMBLE
EL MONTE, El Monte.	J. T. GORDON.	A. H. HOYT
ENTERPRISE, L. An'gl's.	B. F. CLARK. E. S.	BUTTERWORTH
EUREKA, Pomona.	C. BURDICK.	W. C. MARTIN
FAIRVIEW, Anaheim.	DAVID EVEY	J. M. AUSTIN
FLORENCE, Los Ang'l's.	J. R. TANSEY.	R. RANNEY
FRUITLAND, S'ta. Ana.	N. O STAFFORD.	E. L. RUSSELL
LOS ANGELES.	S. A. WALDRON.	J. Q. A. STANLEY
LOS NIETOS.	F. B. GRANDIN.	W. S. REAVIS
NEW RIVER, Corvallis.	M. J. MCGAUGH.	S. G. BAKER
ORANGE.	L. J. LOCKHART.	J. W. ANDERSON
SILVER, L. Nietos.	W. P. MCDONALD.	DORA SKIDMORE
SPADRA.	A. T. CURRIER.	JOS. WRIGHT
VINELAND, Tustin C.	G. W. FREEMAN.	EUGENE STINE
WESTMINSTER.	G. C. MACK.	W. F. POOR
	MARIN COUNTY.	
NICASIO.	P. K. AUSTIN.	J. W. NOBLE
TOMALES.	O HUBBELL.	R. H. PRINCE
	MENDOCINO COUNTY.	
CAHTO.	J. J. THOMAS.	J. H. CLARKE
LAUREL, Boonville.	N. V. INGHAM.	F. M. HUNT
LITTLE LAKE.	B. MAST.	J. G. SNELL
MANCHESTER.	W. H. CURETON.	J. LANE
POMO.	J. MEWHINNEY.	E. V. JONES
POTTER VAL'Y.	H. W. BAKER MRS. A.	H. SLINGERLAND
ROUND VALLEY, Covelo.	P HANDY.	WILL TODD
SANEL.	A. MARSHAL	JOSEPH A. KNOX
UKIAH.	A. O. CARPENTER.	W. D. WHITE
	MERCED COUNTY.	
BADGER FLAT, Los Banos.	J. STOCKTON.	W. F. CLARKE
HOPETON.	JOHN RUDDLE.	T. EGLESON
LOS BANOS.	S. A. SMITH.	JOHN H. BEAVER
MERCED	R. S. CLAY.	M. HERRIN
PLAINSBURG.	P. V. WELCH.	T. J. E. WILCOX
SNELLING.	G C. BAKER.	E. KELSEY
	MODOC COUNTY.	
MODOC, Willow Ranch.	E. V. COFFER.	M. WAID
	MONTEREY COUNTY.	
MORNING STAR, Castroville.	J. MCDONALD.	F. BROWN
SALINAS.	P. MATTHEWS.	CLARA WESTLAKE
	NAPA COUNTY.	
BERRYESSA, Monticello.	J. W. SMITH.	MRS. STAFFORD
NAPA, Napa City.	D. GRIDLEY	HARRY HASKELL
POPE VALLEY.	C. A. BOOTH.	SALLIE HAYNE
RUTHERFORD, Y'utville.	G. S. BURREGE.	H. W. CRABB
ST. HELENA.	J. LEWELLYN.	CHAS. A. STORY
YOUNTVILLE.	T. L. GRIGSBY.	F. GRIFFIN
	NEVADA COUNTY.	
GRASS VALLEY.	CHAS. BAKER.	T. W. STEPHENS
INDIAN SPRING.	H. S. HATCH.	MRS. E. M. HORTON
MAGNOLIA, Grass Val.	E M DENTON.	P. A. WOMACK
	PLACER COUNTY.	
LINCOLN.	A. J. SOULE.	J. S. PHILBRICK
NEWCASTLE.	J. H. MITCHELL.	W. A. DONALDSON
ROSEVILLE	W. H. MURRY.	N. MERTES
	PLUMAS COUNTY.	
INDIAN VALLEY, Taylorv'le.	E. HOSELKUS.	G. BOYDEN
BECKWORTH, Plumas	A. J. SPOON.	T. BLACK
	SACRAMENTO COUNTY.	
AMERICAN R.	E. G. MORTON, SR.	W. W. GILGORE
COSUMNES, Sheldon	J. A. ELDER.	J. H. ATKINS
ELK GROVE.	THOS. MCCONNELL.	DELOS GAGE
ENTERPRISE, Brighton.	J. M. BELL.	A. ROOT
FLORIN.	L. H. FASSETT.	W. SCHOLFFIELD
FRANKLIN.	W. JOHNSON.	S. G. BRADFORD
GALT.	A. B. BRYANT.	J. L. FIFIELD
GEORGIANA, Rio Vista.	H. F. SMITH.	J. H. MAXWELL
SACRAMENTO.	G. W. HANCOCK.	G. T. RICH
SHERMAN I. Emmaton.	A. J. BIGELOW.	E. H. BOGGS
	SAN BENITO COUNTY.	
MOUNTAIN, San Benito.	G. BROWN.	W. K. GOFF
HOLLISTER.	M. POMEROY.	J. D. FOWLER
	SAN BERNARDINO COUNTY.	
RINCON, Chino.	T. W STANFIELD.	JOHN TAYLOR
RIVERSIDE.	E. G. BROWN.	W. O. PRICE
SAN BERNARDINO.	GEO. LORD.	T. D. HENRY
	SAN DIEGO COUNTY.	
BALENA.	C. O. TUCKER. MRS.	C. O. TUCKER
BEAR VALLEY.	W. H. H. DINWIDDIE.	A. M. STRIPLIN
BERNARDO.	J. P. JANES.	W. A. FULLER
NATIONAL RANCH.	F. A. KIMBALL.	F. M. KIMBALL
POWAY.	J. M. WOODS.	E. D. FRENCH
SAN LUIS REY.	M. E. ORMSBY.	L. J. OROMBIE
SAN JACINTO.	T. D. HENRY. MRS.	M. COLLINS
	SAN JOAQUIN COUNTY.	
ATLANTA, Ripon.	P. VISHER.	W. J. CAMBELL
OASTORIA, Stockton.	F. J. WOODWARD.	WALTER GRAVES
COLLEGEVILLE.	A. M. MCINTOSH	L. R. CHALMERS
ELLIOTT.	J. WILTSE.	B. M. GREENE
FARMINGTON.	I. R. HENBY.	E. O. LONG
LIBERTY, Acampo.	T. M. TRACY.	J. SCHOMP
LINDEN.	D. LEWIS.	JAMES WASLEY
LOCKEFORD.	E. P. MCGERLE.	F. O. MCGERLE
LODI.	J. M. FOWLER.	MRS. A. W. GOVE
RUSTIC, Latbrop.	H MOORE.	H. B. DUNN
STOCKTON.	W. G. PHELPS.	T. J. STEPHENS
WASHINGTON.	A. A. VAN SAAT.	C. BAMERT
WEST S. JOA'N, Ellis.	C. D. NEEDHAM.	J. QUACKENBUSH
WILDWOOD.	E. D. MORRISON.	W. M. MUNCEY
WOODBRIDGE.	EZRA FISKE.	J. D. HUFFMAN
	SAN LUIS OBISPO COUNTY.	
ARROYO GRANDE.	W. H. NELSON.	B. J. WOOD
CAMBRIA.	O. H. IVINS.	H. OLMSTEAD
MORO CITY.	A. J. MOTHERSEAD	H. Y. STANLEY
OLD CREEK.	J. FLOOD.	A. L. TOLLE
PASO ROBLES.	H. W. RHYNE.	JOHN THOMSON
SAN LUIS OBISPO.	GEO. STEELE.	A. T. MASON
SUMMIT, Paso Robles.	A. SMITH.	A. T. FOSTER
	SAN MATEO COUNTY.	
CRESCENT, H M Bay.	J. B. GILCHRIST.	A. G. WOODS
LA HONDA.	M. WOODHAMS. MRS.	J. E. WOODHAMS
OCEAN VIEW.	I. G. KNOWLES.	H. E. GRAVES
PESCADERO.	J. C STEELE.	E. LEIGHTON
SAN MATEO.	A. F. GREEN.	C. E. BOWE
	SANTA BARBARA COUNTY.	
CARPINTERIA.	O. N. CADWELL.	M. WHITFORD
CONFIDENCE, Guadalupe.	J. MORSE, JR.	F. N. OCKE
LOMPOC.	WM. JACKSON.	W. W. BROUGHTON
SANTA BARBARA.	O. L. ABBOTT.	V. F. RUSSELL
SANTA MARIA.	S. G. LOCKWOOD.	S. J. NICHOLSON
	SANTA CLARA COUNTY.	
GILROY.	C. WENTZ.	J. H. ADAMS
SAN JOSE.	C. T. SETTLE.	H G. KEESLING
SANTA CLARA.	J. A. WILCOX.	A. B. HUNTER
SARATOGA.	F. DRESSER	MISS JENNIE FARWELL
	SANTA CRUZ COUNTY.	
BEN LOMOND, S'ta Cruz.	JOHN BURNS.	JAS. BURNS
PAJARO, Watsonville	D. CRAWFORD.	L. B JOHNSON
SANTA CRUZ.	G. C. WARDWELL.	T. PILKINGTON
WATSONVILLE.	J. M. RIPLEY.	O. S. TUTTLE
	SHASTA COUNTY.	
COTTONWOOD.	C. P. DUNHAM.	JOHN BARRY
MILLVILLE.	E. WAGNER.	F. R BROWN
READING.	J. F. DINSMORE.	F. MICHAELSON
	SIERRA COUNTY.	
SIERRA VALLEY.	B. F. LEMMON.	J. G LEMMON
LOYALTON.	F. M WEST.	W. C. COLLINS
	SISKIYOU COUNTY.	
ÆTNA.	H. S. MATTHEWS.	L. S. WILSON
MT. BOLIVAR, Callahan's R.	R. M. HAYNES.	C. F. BOYCE
	SOLANO COUNTY.	
BINGHAMPTON.	A. BENNETT.	G. A. BROWN
DENVERTON.	R. H. BARKWAY.	G. C. ARNOLD
DIXON.	G. M. DUDLEY.	MARTHA MCBRIDE
ELMIRA.	J. MCCROERY.	J. A CLARK
POMONA.	R. C. HAIL.	J. R. MORRIS
MONTEZUMA, Col'nsville.	O. M. ISH.	C. K. MARSHALL
RIO VISTA.	J W. CAMERON.	A. DOSIER
ROCKVILLE.	J. R. MORRIS	A. T. HATCH.
SUISUN VALLEY.	R. C. HAILE.	F. MCMULLEN
VACAVILLE.	R. C. MARSHALL.	A. P. COBURN
VALLEJO.	J. F. DEMING	G. C. PEARSON
	SONOMA COUNTY.	
BENNETT V. S'ta Rosa.	A. BURNHAM	G. N. WHITAKER
BLOOMFIELD.	WM. H. WHITE.	A. B. GLOVER
BODEGA.	E. S. PERINE.	E. H. CHENEY
CLOVERDALE.	CHAS. H. COOLEY.	F. W. DAVENPORT
GEYSERVILLE.	A. STITES.	W. H. ADAMSON
HEALDSBURG.	B. B. CAPELL.	W. N. GLADDEN
PETALUMA.	W. W. CHAPMAN.	FREMAN PARKER
SANTA ROSA.	G. W. DAVIS.	JULIUS ORT
SEBASTOPOL.	L. ROSS.	W. J HUNT
SONOMA.	WM. MCP. HILL.	J. A. POPPE
TWO ROCK.	S. M MARTIN.	A. A. WOODEN
WINDSOR.	JAMES KENNEDY.	ELEANOR LINDSAY
	STANISLAUS COUNTY.	
BONITA Crow's L'd'g.	J. W. TREADWELL.	A. B. CROOK
CERES.	H. W. BROUSE.	R. R. WHITMORE
COTTONWOOD.	W. E. RIDDLE.	OSCAR BABCOCK
GRAYSON.	WM. LOVE.	A. C. LANDER
OAK DALE.	C. R. CALLENDAR	C. H. INGALLS
ORISTIMBA. Bill's F'ry.	E. H. ROBISON	B. D. NOYON
SALIDA, Modesto.	J. D. REYBURN.	J. P. VINCE T.
STANISLAUS, Modesto.	V. E. BANGS.	B. B. ROBINSON
TURLOCK.	B. H. DEANE.	MISS L. DEANE
WATERFORD.	K. R WARDER.	W. C. COLLINS
	SUTTER COUNTY.	
NORTH BUTTE.	B. R. SPILLMAN.	J. G. DOW
SOUTH SUTTER.	THOS. BOYD.	W. TREVETHAN
SUTTER, Meridian.	W. C. SMITH.	S. H. MOORE
YUBA CITY.	B. F. WALTON.	MOLLY HARDY
	TEHAMA COUNTY	
FARMINGTON.	O. P. FOSTER.	C. C. CHITTENDEN
NEW SALEM, Paskento.	O. HARRIS.	W. T. HARRIS
RED BLUFF.	R. H. BLOSSOM.	C. E. FONDA
	TULARE COUNTY.	
CHRISTMAS, Visalia.	S. H. BLOOD.	J. PERRIN
DEEP CREEK.	A. W. MATHEWSON.	W. G. PENNEBAKER
FRANKLIN, Grangeville.	T. S. HARRINGTON.	G. W. CAMP
LAKE, Grangeville.	M. S. BABCOCK.	M. E. SIMMONS
KEYSTONE.	ERASTUS AXTELL.	N. R. GOLDEN
MANZANITA.	J. K. CRAMER.	MRS. M. C. BECKER
MOUNT WHITNEY.	A. F. THOMPSON.	G. W. DUNCAN
MUSSEL SLOUGH.	W. UNDERWOOD.	W. H. PATTENFELD
TULARE.	P. S. TRACY.	J. A. GOODWIN
TULE RIVER.	C. W. MCKELVEY.	W. H. ATKINSON
VISALIA	J. M. GRAVES.	W. CURTIS
WOODVILLE.	J. A. SLOVER.	J. H. GRIMSLEY
	TUOLUMNE COUNTY.	
SONORA.	G. C. SOULSBY.	J. W. PURDY
	VENTURA COUNTY.	
OJAI, Nordhoff.	L. O. SOULE.	J. HOBART
PLEASANT VALLEY.	W. P RAMNER.	W. O. WOOD
SAN PEDRO, Hueneme.	J. Y. SAVIERS.	D D. DENURE
SATICOY.	E. B. HIGGINS.	MISS A. BAKER
SESPE, San B'ventura.	F. A. SPRAGUE.	H. WARRING
VENTURA, San B'ventura.	C. S PREBLE.	J. M. BROOKS
	YOLO COUNTY.	
ANTELOPE.	W. J. CLARK.	T. F. HUGHES
BUCKEYE.	WM. SIMS.	MRS. E. A. MOODY
CACHE CREEK.	S. B. HOLTON.	E. R. HOLTON
CAPAY VALLEY.	J. N. RHODES.	HOWLAND BOWER
DAVISVILLE.	J. O. CAMPBELL.	H. BOWERS
FAIR VIEW VAL., Yolo.	A. H. NIXON.	T. A. GALLUP
WEST GRAFTON, Yolo.	GEO. SHARPNACK.	G. W. PARKS
YOLO, Woodland.	R. B. BLOWERS.	G. N. FREEMAN
	YUBA COUNTY.	
KELLEY, Smartsville.	J. E. RICKEY.	WM. SCHMIDT
MARYSVILLE.	MORTON SEWELL.	
WHEATLAND	J. H. KEEFS.	C. K. DAM

Nevada Subordinate Granges.

[Under the Jurisdiction of California.]

ALFALFA, Reno: A. J. HATCH, M.; E. C. MCKINNEY, S.
CARSON VAL'Y, Genoa: T. IRVIN, M.; R. J. LIVINGTON, S.
CLOVER VALLEY, Elko: F. THOMSON, M.; W. B. REYNOLDS, S.
DOUGLAS: A. R. BALES, M.; S. A. KINSEY, S
EAGLE VALLEY: G. W. CHEDIC, O.: A. F. GILBERT, S.
ELKO: J. A. TINKER, M.; J. L. KEYSER, S.
HALLECK: J. S. FENN, M.; M. GEARY, S.
MERITT, Mason Valley, Esmeralda Co.: KIMBER CLEAVER, M.; CLARK CLEAVER, S.
PARADISE: J. BRADSHAW, M.; J. P. MCLINIX, S.
LAMOILLE: H. A. YOUNG, M.; H. M. TRUMAN, S.
STAR VALLEY: D. V. JOHNSTON, M.; C. J. WHITNEY, S.
WELLINGTON, No. 6, Esmeralda Co.: A. H. HAWLEY, M.; J. N. MANN, S.
WINNEMUCCA: W. B. HASKELL, M.; H. BARNES, S.

Letters From Worthy Master Webster.

The following points and extracts are from letters written in answer to inquiries made to the Worthy Master of the California State Grange.

No. 1. Secret Work of the Order—Dues from Suspended Members—Members of Suspended Granges—Can Apply to S. G. for Cerlificates.

There were no material changes made in the secret work of the Order at the last session of the National Grange. In regard to the "Revised Ritual," I will state that the "Revisal Committee" reported at the last session of the National Grange that the work was ready for publication. It was referred to the Executive Committee with power to act. Since that I have heard nothing of the "Revised Ritual," but presume that it will soon be ready for distribution.

In regard to Subordinate Granges having to pay dues on suspended members, although seemingly unjust, I was compelled so to rule, because if you will examine the Constitution of the National Grange, you will see that the State Grange is required to pay to the credit of the National Grange "the annual due of five cents for *each member in the State*." It is also required (Sec. 2. Art. 7, N. G. C.) that "the Secretary of each Subordinate Grange shall report quarterly to the Secretary of the State Grange * * * * and pay a quarterly due of six cents *for each member*." Although a member may be suspended for non-payment of dues (or for some other cause), nevertheless, he or she is a member of the Grange still, and according to any reasonable construction of the law must continue to be so until expelled. The remedy for this hardship is within the reach of every Subordinate Grange, for it is clearly within its jurisdiction to expel any member for non-payment of dues. If the Granges wish to make short work of this class of cases let them incorporate in their by-laws the recommendations of the Executive Committee as published in the appendix to the proceedings of our late State Grange meeting. Each Grange can, of course, modify or change said recommendation to suit its own special requirements, but something similar should be incorporated into the by-laws of every Subordinate Grange in the State to meet the cases of the cnriosity seekers or adventurers who are hanging on to the skirts of the Grange, waiting for something to turn up.

In regard to the sister joining your Grange, I will say that if the Grange to which she belongs has been extinguished it cannot, of course, issue dimits to its surviving members. The members will therefore pay into the treasnry of the State Grange the amount due by each to the Subordinate Grange at the time of its suspension, if any. The Secretary of the State Grange will then issue to each member a certificate of the fact that their Grange has ceased to exist, that the member was in good standing at the time of its suspension, and was either clear on the books or has since paid his or her arrearages to the State Grange. This certificate should be deposited with the application for affiliation, in the place of a dimit, with the Grange which the holder desires to join.

The fact of a sister having changed her name since becoming a Patron does not in the least change her status in the Grange.

No. 2. The Number Conslituling a Quorum—Purchase of Bags—Trustees.

In regard to the recommendation of the Executive Committee, that the "by-laws of Subordinate Granges should be amended so as to conform to the Parliamentary Guide" by reqniring that "thirteen members shall constitute a quornm for the transaction of business," I will say that, in my opinion, the Executive Committee made a mistake in their construction of the law. The language of the Parliamentary Gnide, as recently amended, provides that "a quorum is the least number with which a Grange can be opened in due form, and shonld be prescribed in the by-laws of every Snbordinate Grange. *If not so prescribed*, 13 members shall constitute a quorum." This agrees with Executive Committee, National Grange, ruling No. 27, Parliamentary Guide, which reads "the number reqnired to constitute a quornm msy he fixed by the by-laws," consequently it appesrs to me that since seven members can "open a Grange in due form," Sec. 2, Art. 1, "By-Laws of Snbordinate Granges," is not in conflict with the existing laws on this subject, and consequently it is not necessary to change it.

There has been no provision made by the Executive Committee for the purchase of bags; as you suggest, all orders should be sent to "Grangers' Business Association" where I have the best assurance that they will be properly attended to.

The Trustees of a Snbordinate Grange are not recognized under the existing laws of the Order as "officers," for they are not mentioned in the enumeration of officers, either in National or State constitutions. They are creatures of the Subordinate Granges; and nnless a Subordinate Grange prohibits it, any regnlar officer of the Grange can at the same time hold the position of Trustee.

From Worthy Secretary Adams.

DEAR SIR AND BRO.:—You call my attention to "the apparent discrepancy between the recommendation of the Executive Committee (in recommending the adoption of amendments to the By-Laws of the Subordinate Granges) as contained in the printed proceedings of the State Grange, and the action or nnderstanding that was had at the meeting of the State Grange."

It is not necessary for me to say to you or other members of the Order that the Master of the State Grange is the proper person to whom all disputed constitntional questions must ultimately go. At his request, however, I have answered many letters containing enquiries similar to those in your letter. I will therefore presume to answer yours without snbmitting it first to him, and if my understanding of the matter is not satisfactory you will have to take the case to him.

In the first place I believe Snbordinate Granges have the right to adopt any constitution or code of by-laws they wish, which are in harmony with the object, rules and principles of onr Order, and not in conflict with the constitution or by-laws of the National or State Granges. Hence it follows that the State Grange cannot, by resolntion or otherwise, change the constitntion and by-laws of a Subordinate Grange, or compel it to adopt any particnlar form.

I do not know that they have ever attempted to exercise power of this kind; on the contrary, if you will examine the note at the bottom of page 32 of the Constitution and By-Laws, you will observe that their action through the Executive Committee is only advisory and not mandatory.

Therefore I think that whatever nnderstanding was had at the meeting of the State Grange in regard to the interpretation or construction of the constitution or by-laws of the Subordinate Granges has no binding effect upon said Granges.

The way provided for testing the constitutionality of any by-law of a Subordinate Grange is for some member to raise the question in open Grange, have the Master rule upon it; then his decision is subject to appeal to the Master of the State Grange, and from him to the Master of the National Grange, and from him to the Court of Appeals, which is final.

To make the proposed amendments binding npon your Grange it must first adopt them.

You call my attention to my meaning when in the State Grange Report I refer "Secretaries of Subordinate Granges to Sec. 7, Art. 7 of State Grange constitution."

In the manuscript it read "by-laws" of the constitution of the State Grange. The omission of the word "by-laws" was wholly the fault of the printer; the proof of the preface was not brought to me to read, therefore the omission was not noticed till you called my attention to it, for which, thanks. Fraternally yours,

AMOS ADAMS, Sec'y State Grange.
San Francisco, March 2d, 1876.

Pomona Granges.

A correspondent of the *Ohio Farmer* gives the following reasons for the organization of Pomona Granges:

1. The establishment of a Pomona Grange in every county will greatly facilitate the government of the Order.

2. It will enable all the Granges in the county to work in harmony, and to find out and approve of the best means to gain certain ends in which all the Patrons are interested.

3. It will facilitate the financial and co-operative transactions of the order, and legalize the same, while on the other hand the County Councils have no such power, and cannot protect themselves.

4 It will give a new impetus and life to the Order, and it will keep it up, because it will be attractive, and it will have power to enforce its rules and edicts, being a constitutional branch of the Order and legally authorized to engage and decide upon such business as may properly come before it, while the County Counsils have no recognition or legal sanction for their organization.

5. It will have a tendency to draw out the best abilities of the members of the Order, and stimulate to activity and work in the good cause; because it confers upon its members a high degree in the Order, and no member should be elected to such a degree unless he or she is an earnest worker, well informed, has the good of the cause at heart, and merits the distinction.

From the Granges.

Temescal Grange.

On Saturday last considerable discussion was had on questions of importance to farmers. Bros. Bagge, Yolland and Dewey were appointed a committee to investigate the advantages and report some method for establishing a free market place in Oakland, where farmers and gardeners may congregate and sell at wholesale and retail their own produce on certain days of the week. Also, to report some suitable location for such a market and draw up a proper petition to be presented to the Common Council. Action on the by-laws and other important business was postponed till the next meeting, March 18th, when a harvest feast will be spread by the sisters. By vote, the Secretary was instructed to send special invitation to each Grange in Alameda county. The families of members and all Patrons are invited. At a recent meeting the rate of dues was fixed at 25 cents per month for each member from January 1st.

In Memoriam.

A. B. Hunter, Secretary, sends us the following, adopted by Santa Clara Grange at a recent meeting:

WHEREAS, In the inevitable course of human events another link has been dropped from our fraternal chain, in the death of our worthy and youthful Brother C. W. KEITH, and our Grange shorn of the promise of support and greater usefulness in a more mature age; be it

Resolved, That in the death of our youthful brother this Grange has lost a worthy member, and his parents a beloved son.

Resolved, That we extend our heartfelt and fraternal sympathy to the bereaved parents and friends.

Resolved, That this preamble and resolutions be spread upon the records, and a copy be sent to the RURAL PRESS and *California Agriculturist* for publication.

Z. L. GARWOOD,
J. KNOWLES, } Com.
A. B. HUNTER,

GRANGE DIRECTORY.—We print this week our Grange directory. All corrections which have been sent us since the last printing have been carefully observed in the new compilation. We still retain a small number of Granges from whom we have received no report of elections, last year's officers appearing in such cases. It is not through our negligence if the directory is not perfect. We have given it a great deal of time and examination. We take this occasion to thank the Patrons who have favored with additional information and corrections.

POMONA GRANGES.—It will be observed that in our directory the early organized Pomona Granges appear by name without officers. The records at the Grange headqnarters do not contain the names. Will not some officers of these Pomona Granges furnish us with the needed names?

THE highest point that the public debt of the United States ever reached was in 1866, when it was $2,783,425,879; on the 1st of this month it stood at $2,118,397,212, showing a reduction in nine and one-third years of $665,028,667. It is computed on the best autbority that about two-thirds of the indebtedness is held in Europe, leaving $700,000,000 held in the United States.

THE steamer *South Carolina* sailed from New York for Panama Friday. She is the pioneer vessel of the proposed opposition to the Pacific Mail. Many still believe that the only object of the opposition is to force better terms for the Panama railroad.

AGRICULTURAL NOTES.

California.

ALAMEDA.

LOSS OF SHEEP.—*Independent*, Mar. 4: The mild winters of California make our citizens careless in providing suitable protection for their herds of sheep and other stock. Hence cold and stormy weather, when it does come, causes many losses that might have been avoided. Thus we learn that our friend J. P. Chamberlin of Mission San Jose, has lost during the past winter among the hills back of that place more than 1,200 sheep, through exposure. Their value must bave averaged $2.50 apiece, we suppose, or $3,000 in all.

BUTTE.

SHEEP KILLED.—*Mercury*, Mar. 3: During the past season, Wm. Foreman, who lives on the Quincy road, above Bidwell Bar, has had $500 worth of sheep and lambs killed by dogs. Most of the dogs are owned by Indians and squaw men. Some time ago Mr. Foreman notified his neighbors to keep their dogs home for a few days, while he made war on the rest. A large number were poisoned, and one wrathful man went before the Grand Jury to have Foreman indicted, but soon found he had no rights that a white man was bound to respect.

COLUSA.

OUR CROP PROSPECTS.—*Sun*, Mar. 4: The crop prospects were never so good in this county as at present. The season has been good alike for the winter sowing, for the volunteer, and for the summer fallow. The general average of grain is fully as far ahead now as it has been at the middle of April usually. The harvest will commence in May this season, and here comes in a trouble again. During May and the early part of June we may expect much north wind, and if the grain is ripe much of it will be lost in that way. The wind that blew out so much grain last year was a later wind than we usually have.

FARM HANDS.—There will be a large demand for farm help during the coming harvest A much greater area has been sown to wheat than ever before in this State, and the prospects are that the crop will be much heavier. Harvest will begin early and will continue for about four months. The wages will be two dollars a day and board. We have never advised men without means to come to this State, but if young men who have made up their minds to work will drop in on California some time in May, they can get such a start that they can bridge over the time when work is hard to get. This is the very best time for men who want work to come to this State. Colusa county can give employment to several hundred.

CONTRA COSTA.

SQUIRRELS AND GUM TREES.—*Gazette*, Mar. 4: While many of our citizens are commendably active in tree planting this season, and while a great preference is manifested for the fine and fast growing blue gum, a friend, who has been a suffsrer, suggests that they should be reminded of the partiality of our squirrels for trees of this variety, which they will strip of the bark from the ground to the end of the twigs, if they once set in on them and are not destroyed before they can complete the work. It may be that they would serve young trees of other varieties in the same manner, but so far they seem to have a preference for the blue gum. Quite a number of those so finely growing aleng the road lines of Mr. John Larkey's farm, this side of Walnut Creek village, have been stripped and killed by the creatures since they were planted; and it will be best for those who are now making out plantings of this or other varieties, to be watchful that they are not destroyed by these depredators, whose tastes have a wide range, as we have been convinced since we were assured some years ago by Mr. Wetmore, that they had devoured a setting of tobacco plants, which he had been at much pains to put out on his grounds near Clayton.

EL DORADO.

FRUIT DRYING AND CANNING ESTABLISHMENT.—*Republican*, Mar. 4: Our people have at length waked up to the importance of having in our midst an extensive fruit drying and canning establishment. The meeting to consider the matter was largely attended, and a good deal of interest was manifested. It was proposed to organize a stock company with a capital of $250,000 in shares of $10 each, and preliminary steps taken to secure 25 per cent. of that amount in subscription immediately. A committee was appointed to solicit subscriptions to the capital stock, and take such other action as may be necessary, in view of permanent organization. C. W. Brewster, John Blair, C. H. Weatherwax, M. O'Brien, W. H. Brown, M. G. Griffith, C. D. Brook, J. M F. Pearson, J. Celio, Wm. Jones, F. A. Bishop, C. G. Carpenter, H. G. Hulburd. H. Morril, J. Price, A. Lohry, S. D. Colburn, J. M B. Weatherwax, D. Norton, Wm. Hendrix, B. S. Crocker, G. B. Raffata, Ben Parlow, I. P. Jackson, J. M. Day, J. W. Summerfield, Robert Norris, Walter Miles, Wm. Aiken. Jos. Poteet, Francis Veercamp; and upon motion the name of L. Landecker was added. On motion of C. W. Brewster, it was agreed the name and title of the company shall be the "Hulburd canning and drying company." The meeting then adjourned to meet at Placerville on Tuesday, the 14th day of March, at two o'clock P. M.

KERN.

GRAIN.—*Californian*, Mar. 4: The fields of grain are looking exceptionally well. The rain of last week came in the nick of time, after 10 days of dry, warm weather. Farmers are still plowing and planting, and will continue to do so for three months yet to come. The certainty of a large river during the summer encourages all to extend the work of planting. New ground is being prepared, and every prospect apparent of the most abundant and successful farming season ever witnessed in the valley.

A NEW INDUSTRY.—We have been kindly furnished by Mr. D. T. Hughes, of Linn's valley, with a sample of the pod and fiber of the milk weed, as it grows on the plains. Mr. Hughes bas given a good deal of attention to the subject, and is convinced that the dry plains may yet be utilized without more water than is scantily furnished by the rains of our southern winter. The fiber is equal to the ramie in strength, and would be useful doubtless in the manufacture of the same fabrics as are made from that valuable plant. It would be of special value at least in the manufacture of a species of burlaps for sacks, and for paper. The pod is full of a silky substance, very strong and fine, which, if not available for cloth, would make mattrasses, very much superior to pulu. Mr. Hughes has sown a half bushel of seed, and proposes to test the value of the product. If the views he expresses are correct, and which the material he leaves with us amply justifies, he has found a market for the lands of the dry plains, heretofore unthought of. The weed flourishes there, and is only indigenous on the dryest lands of the valley.

THE COYOTE.—This pest of the valley is giving away to the effect of the no-fence law. Three years ago hundreds of these animals could be seen in a day's ride. They took possession of every camp of the sheep herder, and followed the calves of the wild cattle into every place of shelter. Now, with the settlers scattered over the valley, the general hostility to the sneaking coward, and the need for protecting the pigs and chickens, he is hardly to be seen by day, and is seldom heard at night. Ten years ago they came to the mountains in troops from the tule swamps on the lakes, where they had divided the meals of ducks and geese with the coon through the winter, and took possession of every sheep trail on the hill sides. The herders would scatter poisoned meat along the trails, and often would find a dozen of them lying dead in the morning. Five years ago they visited every house in town; now one must travel miles away to find them, and the race seems to be rapidly passing away.

RABBITS.—Rabbits are increasing in spite of the efforts at their destruction. So many have been killed in our vicinity and sent to San Francisco, that the abundance on the market there has reduced the price to 75 cents per dozen. Mr. Rowe, a hunter stopping at the French hotel, makes a business of bagging game. With a cart, he goes about five miles from town, where he finds great numbers of quail and rabbits in the thickets. He considers it a moderate day's work to bag 100 rabbits. He returned with 45 rabbits and 25 quail a day or two since.

LOS ANGELES.

GUM TREE FOREST. — *Outlook*, March 2: There is a thrify forest of eucalpytus trees on the line of the railroad between Los Angeles and Anaheim. It is owned by a company of which Judge Widney is President. The following is his latest report on the affairs of the company. It is an encouraging exhibit. The company own 200 acres of fine land, on which are houses and other improvements. About 140 acres have been set out in eucalyptus, containing about 80,000 trees. Of these some 30,000 are from eight to 15 feet high. The total cost up to January 1st, including purchase of land, houses, teams, etc., is $12,523. The estimated expenses for the first year, prior to incorporating the company, was $12,750, the actual expense being less than the estimated expense. Disinterested persons estimate the present value of the property at from $40,000 to $60,000, and this at a total cost of $12,523. The remaining 60 acres will be set out by the 5th of May, after which time the expenses will be but little. When the enterprise was started Widney estimated the total cost for four years at $18,000 to $20,000, or 20 per cent. of the capital stock. He now estimates that the total cost will not exceed $16,000 to $18,000, or 16 to 18 per cent. on the capital stock. At the end of four years the property cannot be worth less than $100,000. Only 10 shares of stock have changed hands during the year, and that at an advance of three per cent. The entire stock is owned by 17 persons. Such enterprises are better than banking.

MENDOCINO.

ITEMS.—Cor. Sonoma *Democrat*, Feb. 25: The weather is cold, with snow and ice continuously since January 1st. Very little grain has been sown in Little Lake valley this season; wheat is selling at $1.25 per hundred; money scarce; salmon plenty. Sheep are dying fast. Wm. Hopper raised over 500 lambs last season, and I think he will fall short of that number some 250 this year; he has lost a great many old sheep also. I think this winter has been the roughest I ever saw in the State.

BOONEVILLE.—Cor. Petaluma *Argus:* The farmers, notwithstanding the great amount of rain which has fallen, have gotten their crops all in ground, and the prospects of a bountiful harvest are flattering. We have had some snow but very little frost, and stock of all kinds are doing well.

SAN BENITO.

THE RAIN.—*Advance*, March 4: The rain continues to descend copiously over the wholey valley. On Thursday night it fell heavily and continued during yesterday. Fortunately a mild temperature prevails, and no damage is anticipated to the fruit trees now sending out their blossoms. About 20 inches of rain have fallen during the season, and it has been generally distributed in equal abundance all over the territory of the county. All the farmers are now through seeding, and a much larger acreage is under cultivation than ever before. The early sown grain is a foot high in many places, and everything is green with promise. Feed is plentiful. The stock have a favorable season and bear the signs of good living. We have heard of no losses of any consequence among the stockmen during the past season.

SAN DIEGO.

BEES.—*World*, Feb. 26: Bee men seem to be on the move and we notice loads of bee supplies going out every day. They are all encouraged and in high hopes. They tell us that the little busy bee is doing very well indeed. Feed is reported as plenty, the weather favorable and water abundant. It is a fine outlook and we trust none will be disappointed.

GRAIN AND HONEY.—On the 29th of January, before the late heavy rain, we stated that the grain crop of the county was assured beyond a reasonable peradventure, and that the bee and sheep interests were also in a flourishing condition. Since that time we have had from two to five inches of rain over the county, and, as a matter of course, this coming at a favorable time for all the interests of the county, they are doubly assured. The pasturage will be as markedly improved as the yield of grain, heney and wool, or the quantity and quality of the cattle. It is said that the acreage sown will be largely in excess of last year, and we have reason to know that the bee interest is being largely increased, and instead of 500,000 pounds—the estimated yield for the past year—we look confidently for at least double that amount. There is also an increase in the sheep business.

SANTA CRUZ.

A CORD OF PEAR WOOD.—*Sentinel*, Feb. 26 One of the large pear trees in Mission orchard has been cut down and converted into fire wood. When piled up it measured fully a cord.

SAN JOAQUIN.

SUGAR MAPLE.—Stockton *Independent*, Mar. 3: All over the Northern and Eastern States the maple is known as a beautiful shade tree. It is the cleanest of all the varieties; the trunk grows strong and the foliage dense. Mr. Anderson Read has just imported a lot of young shoots from the Upper Sandusky, in Wyandotte county, Ohio. Some of the same kind, brought here three years ago, are now growing finely on the ranch of Mrs. Miles Williams, on the Woodbridge road, about seven miles from Stockton. This tree, like all Eastern trees that flourish here at all, grows fully twice as fast as in its native places, on account of climate advantages. It is the proper time to plant now and any one having a place to put them should be considered fortunate in finding an opportunity to purchase sugar maples. The lot mentioned above are for sale at William Browning's, on the levee, and attract considerable attention.

THE CROP PROSPECT.—The farmers throughout San Joaquin valley are jubilant over the crop prospect. On some of the black land in San Joaquin county the yield of grain will be limited, as the almost continuous rains prevented the necessary tillage, but over the vast area of sandy land the promise is quite as encouraging as ever before had at this season of the year. On some lands the growth of the young wheat is so rank and thrifty that the use of the mower is cousidered necessary at the present time. A farmer told us several days ago that he believed his wheat crop would be benefited by cutting the young growth now, as that process would force the young plants to stool out, and thereby the roots would be strengthened and the stalks multiplied. The latest rains, we are told, have served a good purpose in softening the surface of the ground, which in many places had become hard and crusty, and in adding vigor to the strong and healthy growth of young grain. Should the present promise be fulfilled the grain yield of San Joaquin valley this year will be enormous. A considerable area of ground has but recently been sown, but as the soil has been well watered by the winter rains and is in the best possible condition, a fair yield may with some degree of certainty be counted upon if the weather proves favorable.

SOLANO.

THE MOON AND THE RAINS.—*Chronicle*, Mar. 4: We have heard many sage predictions from experienced moon-weather prophets of late to the effect that when the first rains of the season come on the full of the moon all the storms of the season will come likewise, and vice versa. The first rains of the present winter came on the old of the moon, the last rains on or about the full moon, and the present rain is on the new of the moon. There is, however, one difficulty about this moon business. Back in the States there have been floods of rain in the Western States at a time of great drouth in the Middle and Eastern States. This fact appears to involve the question as to whether all the States have the same moon. Be this as it may grain crops in this vicinity look remarkably fine. There is some apprehension in regard to the heavy growths of grain on summer fallowed lands, for in some fields considerable portions have fallen down. This fact may work a partial failure in its ultimate development.

PROSPERITY AT MONTEZUMA HILLS.—EDITORS PRESS:—When we are prospering it is natural that we would have it known. The possession

(Continued on Page 172.)

The Closing Scene.

The following is pronounced by the *Westminster Review* to be unquestionably the finest American poem ever written:

Within the sober realm of leafless trees,
The russet year inhaled the dreamy air:
Like some tanned reaper, in his hour of ease,
When all the fields are looking brown and bare.

The gray barns looking from their hazy hills,
O'er the dun waters widening into vales,
Sent down the air a greeting to the mills,
On the dull thunder of alternate flails.

All sights were mellowed and all sounds subdued,
The hills seemed farther and the streams sang low,
As in a dream the distant woodman hewed
His winter log with many a muffled blow.

The embattled forests, erewhile armed with gold,
The banner bright with every martial hue,
Now stood like some sad beaten host of old,
Withdrawn afar in time's remotest blue.

On somber wings the vulture tried his flight,
The dove scarce heard his sighing mate's complaint;
And like a star, slow droning in the light,
The village church vane seemed to pale and faint.

The sentinel cock up on the hillside crew—
Crew thrice—and all was stiller than before;
Silent, till some replying warden blew
His alien horn, and then was heard no more.

Where erst the jay, within the elm's tall crest,
Made garrulous trouble with her untledged young;
And where the oriole swung her swaying nest,
By every light wind like a censor swung.

Where sang the noisy martins in the eaves,
The busy swallows circling ever near—
Foreboding, as the rustic mind believes,
An early harvest and a plenteous year.

Where every bird that waked the vernal feast,
Shook the sweet slumber from its wings at morn,
To warn the reaper of the rosy east—
And now was sunless, empty, and forlorn.

Alone, from out the stubble, piped the quail,
And croaked the crow through all the dreary gloom.
Alone the pheasant, drumming in the vale,
Made echo in the distance to the cottage loom.

There was no cud, no bloom upon the bowers,
The spiders moved their thin shrouds night by night,
The thistle down, the only ghost of flowers,
Sailed slowly by—passed unseless out of sight.

Amid all this, in this most dreary air,
And where the woodbine sheds upon the porch
Its crimson leaves, as if the year stood there,
Firing the floor with its inverted torch;

Amid all this, the centre of the scene,
The white-haired matron, with monotonous tread,
Plied the swift wheel, and with her joyous mien,
Sat like fate and watched the flying thread.

She had known sorrow. He had walked with her,
Oft supped and broke with her the ashen crust,
And in the dead leaves she still heard the stir
Of his thick mantle trailing in the dust.

While yet her cheek was bright with summer bloom,
Her country summoned and she gave her all;
And twice war bowed to her his sable plume—
Regave the sword to hang upon the wall.

Regave the sword, but not the hand that drew
And struck for liberty the dying blow;
Nor him, who to his sire and country true,
Fell 'mid the ranks of the invading foe.

Long, but not loud, the droning wheel went on,
Like that low murmur of a hive at noon;
Long but not loud, the memory of the gone
Breathed through her lips a sad and tremulous tone.

At last the thread was snapped, her head was bowed,
Life dropped the distaff through her hands serene;
And loving neighbors smoothed her careful shroud,
While death and winter closed the autumn scene.

—*Thomas Buchanan Read.*

The Language of Animals.

The acuteness of the sheep's ear, it is said, surpasses all things in nature that I know of. A ewe will distinguish her own lamb's bleat among a thousand, all bleating at the same time, and making a noise a thousand times louder than the singing of psalms at a Cameronian sacrament in the fields, where thousands are congregated—and that is no joke either. Besides, the distinguishment of voice is perfectly reciprocal between the ewe and lamb, who, amid the deafening sound, run to meet one another. There are few things which have ever amused me more than a sheep shearing and then the sport continues the whole day. We put the flock into the fold, set out all the lambs to the hill, and then send the ewe to them as they are shorn. The moment that a lamb hears its dam's voice, it rushes from the crowd to meet her, but instead of finding the rough, well clad, comfortable mamma which it left an hour or few hours ago, it meets a poor, naked, shrivelling—a most deplorable looking creature. It wheels about, and uttering a loud, tremulous bleat of perfect despair, flies from the frightful vision. The mother's voice arrests his flight—it returns—flies, and returns again generally for ten or a dozen times, before the reconciliation is made up.—*James Hogg.*

An awkward man, attempting to carve a goose, dropped it on the floor. "There, now!" exclaimed his wife, "we've lost our dinner." "Oh, no, my dear," answered he, "it's safe, *I have got my foot on it!*"

Farm House Chat.

[Written for the Press by Mary Mountain.]

Perhaps no speaker or writer, truly anxious to give a word of cheer and sympathy to others, is free from misgivings at times, and the fear that harm may be done along with the good, and that instead of helping they may even be so unlucky as to hurt those whom they wish to comfort.

Thinking much of this has often made me afraid of my tongue and my pen; has almost made me wish that nature had classed me with those smooth, close-shut people whose hearts and thoughts seldom get in a tangle with other people's interests. Yet as the daily fight goes on, good deeds are needed, and strong words that ring with sympathy, caution and courage. We often say, "O, words amount to nothing; they are idle and worthless as the breath they float upon." But that is false. We must all judge for ourselves in the matter, but I can testify that printed words and pleasant, friendly spoken words have immense power over me, and if they are good and earnest and intended to help me, they really do help me, even though I flout them at first, and say, "Yes, it is very easy to talk." Or, perhaps, like others who feel insulted by advice that is too close-fitting, I have said, "Yes, yes, it is easy enough for people to sit in a cozy room, with no hard work to do, and simply amuse themselves by planning other people's duties, and writing out smoothly what we had better do and just how we had better do it."

Not even Mrs. Tuttle, who speaks up so bravely for "farmers' wives," can get up a finer frenzy of indignation than I have felt toward writers whose easy going lives were so different from ours as to give them no warrant to criticise the hard, unyielding conditions that surround us, and that we must feel and bear, and do the best we can with day by day and year by year.

Why, I have felt fairly savage toward such authors; have said, "Let them come down, with all their æsthetic daintiness, right here amongst the work. Let them feel the burden and heat of the day. Let them share it all with a conscience that will not excuse shirking—a conscience that will not excuse any neglect of others whose welfare, nay whose whole lives (as in the case of little children) are in our keeping. Then, when they feel the urgency and pressure of homely toil, they may still love harmony and beauty and personal daintiness the same as ever, but will often have to worship it afar off and toil hopefully on toward it just as we do."

And not alone against authors was the flame of my wrath kindled. Until personal acquaintance taught me the secret of the wearing toil and anxiety of editorial lives, I was inclined to question in the severe style of the old hymn—

"Shall they on downy pillows lie,
And flowery beds of ease?
While I must fight to win,' 'etc., etc.

Yes, I used to resent the long columns of wholesome advice to "us farmers" and comfort myself with many a private growl, and fancy a picture of the Ed., the D. D., the M. D., the Hon., the whole "city full," sitting softly on the front seats of life and looking complacently around at the farmer toiling in the background, to whom they sing out: "That's right, my good fellow, stick to the shovel and the hoe. Hurra for the dear old plow and all the rest of it! Plenty of sunshine, pure air, and good, wholesome dirt you have out there; and all night to sleep in, free from the glitter of temptations that lure us city chaps into the gall of bitterness and the bonds of iniquity. So don't fret over loneliness or hard work. Stick to the farm, for we need you there. City can't live without the country; and we naturally enjoy city life, and lending you money on good security, and will even tell you how to manage your business if you'll pay well for it," etc., etc.

Well, I am older and wiser now and don't often growl at city folks. In fact, if I were a truly independent farmer—no mortgage or slowly cankering thing of that sort—I would not "swap lots" with any city chap, even for a *corner* lot; and I should loftily condescend to take the best agricultural papers and pay for them, even though the editors, poor fellows, must live in the city and work hard so that king farmer may take his ease and enjoy their wide-awake columns in the sweet quiet of evening hours.

But this is not at all what I started to say. Mrs. Tuttle, in behalf of "farmers' wives," has given a certain amount of justification for the habit or necessity of personal untidiness and neglect. When neglect of self means noble devotion to others, it seems wrong to cast the shadow of blame upon the self-sacrificing victim. Yet she might give her life to others just as surely and far more wisely if she would all the way along take good care of herself. One of Saxe's little poems has this excellent refrain—

"Be good to yourself, my girl."

We may all imagine that 'my girl" has become the hard working wife of a farmer, with babies to dress, chickens to feed, breakfast to get, and let us hope there is not also milking for her to do in the morning; but if there is we will still hope she will be so good to herself as to let the cows wait until she has had her breakfast.

First of all, she may be good to herself by dressing for her work as wisely as the mason or printer dresses for his; and yet she need not neglect the plain neatness that marks and helps to make the truly helpful, capable woman.

"The Dainty Frill"

can wait the proper occasion and time to arrange it; but for the hasty morning toilet it surely takes no more time to put on a decent dress than to huddle into a dirty, ragged one, and as for the plain collar at the neck, it may be already fastened in place, or pinned on in half a minute, and the average woman looks fully 30 seconds better for that little finish around the neck. And do we not easily "behave ourselves better" when decently clad? We have more self respect, and, I think, more patience; certainly a sweeter influence on those around us.

One chief reason why the hard working woman should dress with—*not elaborate*, but decent—tidiness in the morning is that quite often she finds no time for second dressing and—like a busy man—wears the same garments from morn till bedtime. We may say we do not care when strangers or friends "catch us in our rags;" but the flushed cheek, the troubled eye, the manner ill at ease, betray the truth and show that the womanly wish to look well and appear well is still strong and lively. In these days of sewing machines and cheap dry goods, all ought to have plenty of plain, decent garments, both for work and for play, and if any woman must be stinted, it certainly should not be the hard working wife of the farmer. Some women prefer to have plenty of fine clothes, and as they become draggled, take the fine gowns to work in. If they will be so good to themselves as to cut off the trails, that may do very well. Few women are strong enough to sustain, cheerfully, the burden of daily labor and of dragging clothes.

Bobbin's Death Scene.

The following pathetic sketch of a dying scene is from "Zachariat, the Congressman," a novel recently published in the Chicago *Inter-Ocean*. It is almost worthy the pen of Dickens:

It was an hour after when suddenly he awoke—awoke as if a new life had come upon him. His wife came to him, his children came to him. All surrounded his bedside.

"It's coming," he said.

"What is coming?" said Peggy, softly.

"The light," he answered, "coming so swiftly."

Away off—it seemed so far away, yet so near, it was so plain—a great light was shining upon him. The road was dark on either side, but there was the light, and its rays fell upon his face and lighted it up like a temple. And it came on, on, so steadily, so silently, so swiftly! Each moment its rays grew stronger. He turned to those about him; he heard words of tremulous grief; and then he looked again and the light was nearer. He felt his thin hand pressed, and was recalled once more to earth; it was only for a moment, but when he looked again the light was almost there. Then the objects about him lost their form, the features at his bedside faded into indistinctness, and the great beacon was shining full across his radiant face. His eyes were opened, but they saw no sight save that. His ears were unclogged, but they caught no sound save the rushing of that awful messenger. And then it was THERE, enveloping him like a mighty cloud. The unearthly radiance dimmed his eyes, and as it came and passed, poor little Bobbin emptied the sunshine of his humble life into the great blaze of eternity, and passed on with it.

O, beautiful Life! O, still more beautiful Death, when the golden sun of Immortality sheds its beams like this—a benediction on the dying.

Respect Due to Wives.—Do not jest with your wife upon a subject in which there is danger of wounding her feelings. Remember that she treasures every word you utter. Do not speak of great virtues in another man's wife to remind your own of a fault. Do not reproach your wife with personal defects, for if she has sensibility you inflict a wound difficult to heal. Do not treat your wife with inattention in company; it touches her pride and she will not respect you more or love you better for it. Do not upbraid your wife in the presence of a third party; the sense of your disregard for her feelings will prevent her acknowledging her fault. Do not entertain your wife by praising the beauty and accomplishments of other women. If you would have a pleasant home and a cheerful wife, pass your evenings under your own roof. Do not be stern and silent in your own house, and remarkable for sociability elsewhere.

Hard, horny hands, embrowned by the sun and roughened by labor, are more honorable than white ones that never reached out to help a fellow creature or added a dollar to the world's wealth.

Mr. Hunt, in his lecture on common law, remarked, "that a lady when she married lost her personal identity—her distinctive character; and was like a dew-drop swallowed by a sun-beam."

An Iowa man rushed excitedly into a lawyer's office and said: "A man has tied a hoop to my horse's tail; can I do anything about it?" "Yes, go and untie it—fee, five dollars."

The Average Parlor.

There are parlors belonging to rich men who are the sons of rich men, who have been educated carefully and who have traveled and seen all there is to be seen of splendid and beautiful, and yet, though their rooms are full of external evidences of wealth and travel, the things seem unhappy, the colors all "swear at one another," as the French artistic slang has it; the chairs and tables, like people too early at a country party, are waiting for an introduction, and the taste, if taste it may be called, in the pictures and bric-a-brac is so discordant that if the owner really likes one-half of them we cannot understand how he should be able to tolerate the other. Of course it is not always fair to judge the owner of one of these multifarious drawing rooms by what he puts forward as his own taste. In nine cases out of ten it is not his taste at all, but the taste of the town, and he has meekly put himself into the hands of the fashionable furnisher. We might as well lay the charge of the theatrical, vulgar paraphernalia of a modern first-class funeral at the door of the dead man upon whose unresisting body all these hideous "floral emblems" are piled. The fashionable undertaker sits on him when dead, as the fashionable furnisher sat on him when alive. We cannot judge of his taste until he shows it; until he takes his house into his own hands and makes it to his mind. It is to persuade people to do this that these papers are written, but the writer is not very hopeful of persuading any but young people and those who have a natural independence. Rich people are, for the most part, so thrilled by their money they don't dare do what they would like. And people who are well on in life do not, as a rule, take enough interest in the subject. They find the old shoes easier to the feet. —*Scribner.*

A Good Home.

Talmage says: A good home is deathless in its influences. Parents may be gone. The old homestead may be sold and have passed out of the possession of the family. The house itself may be torn down. The meadow brook that ran in front of the house may have changed its course or have dried up. The long line of old-fashioned sunflowers and the hedges of wild rose may have been graded, and in place thereof are now the beauties of modern gardening. The old poplar tree may have cast down its crown of verdure and may have fallen. You say you would like to go back a little while and see that home, and you go, and O, how changed it is! Yet that place will never lose its charm over your soul. That first earthly home will thrill through your everlasting career. The dew-drops that you dashed from the chickweed as you drove the cows afield 30 years ago; the fire-flies that flashed in your father's home on summer nights when the evenings were too short for a candle; the tinged pebbles that you gathered in your apron on the margin of the brook; the berries that you strung into a necklace, and the daisies that you plucked for your hair—all have gone into your sentiments and tastes, and you will never get over them. The trundle bed where you slept; the chair where you sat; the blue edged dish out of which you ate; your sister's jumping-rope; your brother's ball; your kite; your father's frown—they are all part of the fiber of your immortal nature.

Wouldn't Pass.—Conductor Barnes, of the Atlantic and Great Western road, in taking up tickets the other day, was somewhat surprised when a lady handed him a paper on which his eye distinguished the words: "Take one cup of sugar, three eggs, and two pounds of flour; stir up well, add a little salaratus, bake for twenty minutes in a hot oven." "Do you expect to pass on this?" asked the puzzled conductor. "Certainly, sir," said the lady in a surprised manner. But when she glanced her eye on the paper she smiled and explained, while the conductor took up her regular ticket and willingly handed back her recipe for making "Boston cookies."

Comfort that is Real.—That farmer who keeps everything about the premises tidy, all the animals in a comfortable condition, who has plenty for his family's support, is out of debt, (or whose affairs are in a prosperous condition,) is at peace with his neighbors, takes the papers, and buys good books, is truly nature's nobleman, and can truthfully say: "I am monarch of all I survey; my rights none dare dispute." Such a one the king on his throne may well envy, and the merchant, or professional man, is naught when compared with this. —*Ex.*

The Hartford little girl who gave utterance to the following idea was puzzling her mind with a problem that has bothered the world for ages. She was reproved for some childish act, and seeing herself on the floor at her mother's feet, reflected for a long time, and then looking up, said: "Ma! Why is it that naughty things are so nice?"

Candle Light.—Candle light is generally considered to enhance the beauty of one's face and complexion, and we are told that it will be the fashion this winter to use wax candles at parties instead of gas. Young ladies who have more freckles than they know what to do with will read this with gratification.

If you drink a spider without knowing it, he may not hurt you. There is probably less poison in him than in the knowledge that you have swallowed him.

How to Secure a Good Complexion.

There is nothing so annoying to a young girl as an imperfect skin. If we address any one we imagine that person's attention to be immediately drawn to our own source of discomfort, a broken-out face; if they speak to us we are positively diffident on account of our misfortnne.

Dear girls, the writer has had experience in this, and can sympathize with you. For three years my face would keep breaking out in a sort of rash, not large, unsightly blotches, for such I never had, but I feel sure that if what I did use helped me it would benefit those who are worse than I was.

I tried everything of which I had ever heard, but without avail. I became disgusted with everybody and especially myself. Every day I met girls coarse and illiterate, who knew and cared nothing about education and refinement, whose faces were smooth and rosy, while I was destined to wear an irritable and pimply skin, and I became morose and low spirited.

But one day while reading a magazine the word "oatmeal" caught my attention. I determined to try it. I bought four pounds and have used it six months. I have used it twice a day all the time.

I take the meal, a little on a preserve plate, pour on just enough cold water to make it thin, strain through a small sieve, and dipping a cloth into the water wash over my face once or twice and let it dry. This does not require more than five minutes, and the result is, what? All my friends exclaim about my beautiful complexion.

Please follow my example and you will not regret it when you see the result.—*Exchange.*

Influence of the Bible.

It was a noble and beautiful answer, that of Queen Victoria, the monarch of a free people, reigning more by love than law, that she gave to the African prince who sent an embassage with costly presents, and asked her in return to tell him the secret of England's glory. The beloved queen sent him, not the number of her fleet, not the number of her armies, not the account of her boundless merchandise, not the details of her inexhaustible wealth. She did not, like Hezekiah, in an evil hour, show the ambassador her diamonds, her jewels and her ornaments, but handing him a beautifully bound copy of the Bible, she said: "Tell the prince that this is the secret of England's greatness."

In our own beloved land, the secret of our national greatness may be traced back to the influence of this blessed, this God-given book. It is said that the first liberty pole ever erected in America was erected by the people of Massachusetts, and that they surrounded it with an immense pile of Bibles. No wonder that the people of that grand old State have always been the champions of liberty.

The act of Congress in 1777, providing for the importation of Bibles, evidently has had much to do with our national greatness. The influence of the Bible on men's hearts and lives more fully displays the power of the Bible. The seeds of truth may spring up long after being sown.—*Christian Record.*

Don't Quarrel.

Peoplo talk of lovers' quarrels as rather pleasant episodes—probably because they are not quarrels at all. It is half play, and they know it. Matrimonial quarrels are another thing. We doubt seriously if married people ever truly forgive each other after the first falling out. They gloss it over, they kiss and make it up; the wound apparently heals, but only, as those horrible wounds given in battle do—to break out again at some unexpected moment. The man who has sneered and said cruel things to a sensible woman never has her whole heart again. The woman who has uttered reproaches to a man can never be taken to his bosom with the same tenderness as before those words were spoken. The two people who must never quarrel are husband and wife. One may fall out with kinsmen, and make up, and be friends again. The tie of blood is a strong one, and affection may return after it has flown away; but love, once banished, is a dead and buried thing. The heart may ache, but it is with hopelessness! It may be impossible to love any one else, but it is more impossible to restore the old idol to its empty niche. For a word or two, for a sharpening of wits, for moment's self-assertion, two people have often been made miserable for life. For whatever there may be before, there are no lovers' quarrels after marriage.—*Ex.*

You Will be Wanted.—Take courage, my lad. What if you are an humble, obscure apprentice—a poor, neglected orphan—a scoff and by-word for the thoughtless and gay, who despise virtue in rags on account of its tatters? Have you an intelligent mind, untutored though it may be? Have you a virtuous aim, a pure desire, an honest heart? Depend upon it, some of these days you will be wanted. The time may be long deferred—you may be grown to manhood, and you may reach your prime ere the call is made; but virtuous aims, pure desires and honest hearts are too few not to be appreciated—not to be wanted. Your virtue shall not always hide you as in a mantle—obscurity shall not always veil you from the multitude. Be chivalric in your combat with circumstances. Be active, however small your sphere of action. It surely will enlarge with every moment, and you will have continued increment.

Young Folks' Column.

What I Saw in the Garden.

A Child's Experience Told by Nell Van.

I was sitting in the summer house eating a piece of cake which mamma had given to comfort me because I was to be left at home alone, when a little black ant ran off with a crumb in its mouth. The ant was very black and the crumb of cake was very white, and it looked so funny that I watched to see where it would go. If I had been the ant I thonght I would have stopped and eaten it instead of carrying it off.

Then another ant came along, and seemed to smell the cake, and followed the back track till it found a crumb as big as itself, nearly, which it tugged off with. Then there were dozens of ants, all with crumbs in their mouths, and running about every which way. I could not begin to count them there were so many. I never knew where they all went to, for just then a bee came buzzing about my ears. He lit upon a bnsh, and thrust his long tongue into every flower, licking up the honey. His legs were dusty with yellow pollen, and he hummed merrily as he flew out of sight.

I almost stepped upon a bug, and stooped to poke it with a bit of stick, when he rolled himself up into a tiny ball the size of a pea, and away he went off in a corner nnder a gooseberry bush, which grew in the shade.

Something like diamonds was glieteniug in the bnsh, and going up closer I peeped in upon some dew drops which had not dried off from Mr. Spider's pretty web. He was there at work, walking back and forth spinning and building—euch shining silken ladders which he fastened among the twigs. "Oh how pretty," said I aloud.

Down hopped a little bird from the tree top and seemed to twitter, "Yes, how pretty." Then he pounced upon a bit of cake I had let fall, and away he flew up to his nest with it, and I heard the voices of the young birds being fed.

"Every creature finds something to do but poor me," sighed I. "They all learn to look out for themeelves before they get as big as I am. I don't want to be a lazy child any longer," so running into the honse I was met at the door by mamma, who had just returned from her walk. I hegged her to give me eomething to do, for the ants, the bees, the spiders and birds were all busy, and I wanted to learn to take care of myself too, since I was bigger than they.

She smiled, but wbat do you think she gave me to do? Why she brought out that detestable ruffle which I have been trying to hem this six weeks, saying, "Here, child, is your work."

I just thought she might have let me cook the dinner instead, or make nice pies and cake, or weave a fancy net for my hair, like the spider was building out in the hush. "Oh dear," cried I with vexation, "I'd rather be anything than just a little girl."

Letter from Indiana.

The following letter, which comes to us all the way from Green Center, Noble Co., Indiana, is evidently from one of the young readers of tbe Press. We are glad to see tho "young folks" of the Atlantic and Pacific thus fraternizing. Our correspondent will perceive that we have taken a slight liberty with his manuscript:

Editors Press:—Although so far off, your valuable paper finds its way to this place regularly. A newspaper is the medium by which we see every variety of things, different manners and customs, and climate. You also have a columu for the young folks, so with your permission I will contribute my mite.

An Exercise.

A sea captain on a voyage with 30 passengers, being overtaken by a violent tempest, found it necessary to throw half of them over in order to lighten the vessel. Fifteen of the passengers were Christians, and the others were unbelievers; but in this exigency they unanimously agreed with the captain's opinion, that he should place the whole 30 in a circle, aud throw every ninth man overboard till only 15 were left. Now the captain was anxious to save all the Christians and sacrifice the unbelievers. Could he place them iu a circle so that by throwing overboard every ninth man he would accomplish his desire, and if so how should they have boen placed? Will some of my young friends answer? Yours respectfully,

T. Southworth.

A Model Boy.—Lady Baker, in a recent work, gives her ideal of a model boy as follows: If I could make a model boy, I'll tell you what he should be like. He should love cold water, and hate a lie. He should be frank and unsuspicious, as becomes a noble, trusting nature, and yet he should be neither silly nor soft. He should have plenty of manias. He should have an appetite like a wolf, for I should wish him to be tall and strong; but he must not bo a bit greedy. He should not be ashamed of loving and reverencing all that is good, and holy and pure, but with nothing of mollycoddle about him. He should have a fine, sweet temper, yet he should be as the Yankee song says, "An okered man in a row," and he should know how to take care of himself with his fists.

Good Health.

Rheumatic Recipes.

The *Journal of Health* has patiently collected and published 100 recipes for the cure of rheumatism, and spreads them before its readers in the following manner:

Rochelle salts. Guaiacum. Rub with chloroform liniment. Sleep with your head toward the north. Nux vomica. Wear a chest protector. Nitrate of potash. Nitrate of sodium. Fowler's solution of arsenic. Sleep with a big dog and give it to him. Kill a big dog and, after taking out his intestines, put your feet where they came from. Magnetism. Galvanism. Bromide of ammonium. Iodide of ammonium. Mustard plasters. Spanish fly plasters. Bromide of potassium. Iodide of potaesium. Lemon juice. Sage tea. Wear sulphur in your shoes. Hard rubbing. Oleate of mercury. Common soda. Capsicum. "Radway's Ready Relief." Wear silk. Wear flannel. Wear huckekin. Gin and hemlock. Reynolds' specific. Make a necklace of the knots produced by the sting of an insect on "Golden Rod," and wear it next the skin. Citrate of lithia. Exercise and keep it off. Keep as quiet as possible. Colchicum. Morphine. Water cure. Angel's rheumatic gum. Pray fervently. Soft soap, bandaged with flannel. Do not eat meat. Do not eat eggs or potatoes. Eat anything you please. Opium. Do not smoke at all. Smoke all you like. Take camphor. Drink nothing but beer. Do not drink anything but whisky. Do not drink anything at all. Do not leave the honse. Take a ride out whenever you can. Carry a piece of alum in your pocket. Take Turkish baths. The Turkish bath is one of the woret things for rheumatism. De Soto spring water. Acetate of potaeh. Burdock seed. Bathe in hot water with pearlash in it. Bathe in cold water frequently. Do not bathe at all until you are nearly well. Catnip tea. Wrap fresh lamb's entrails around your neck. Drink brandy. Brandy is very bad for rheumatism. Sleep next to flannel. Go to Arkansas hot springe. Go to Doolittle springs—to Saratoga, to Florida, to Bermuda, to the Sandwich islands, to California, to the south of France, to Mexico, to the Azores, to South America. Wear a horee chestnut in your left hand breeches pocket. Wear a potato in tbe other. Take "Constitution water." Take carbolic acid. Wrap joints with cotton, and cover with oiled silk. Glen Flora water. Get out on the prairies. High land is best for rheumatism. Balm of life. Magnetic salve. Rub with kerosene. Mustang liniment. Read Job. Put on hot poultices. Apply hop mashes. Do not swear. Put mustard plasters over the heart. Drink Friedrichshall hitter water. Seidlitz powders. Take a quart of alcohol with a dozen lemons in it. Take spirits of turpentine. Rub with spirits of turpentine. Slippery elm poultice. Electric oil.

Any disease that won't succumb to one or all of the above remedies must be hard to cure.

Disease and its Cause.—On inquiring recently about the health of a lady to whom I had just been introduced, she said her health was not good; that she was subject to frequent attacks of chills and fever. I asked her if she lived near a swamp or a stream of water. "Why, I live," said she, "on the bank of a large millpond that is covered with green slime!" No. 2. A man and his wife were both taken sick the same night, the one of spinal meningitis and the other of diphtheria. Having occaeion to enter the house a few days later, I was almost knocked dowu by a stench which I had never before encountered. It was fairly penetrating, like the ammonia tbat rises from fermenting stable manure. Strange to say, both of these pereons have recovered. No. 3. In the same village is a slaughter house, to the rear of which is a pen containing some half a dozen filthy-looking hogs wallowing in filth three or four feet in depth, consisting of beef skulls, bones, entrails, blood and manure, and all thie in less than two rods from the residence of the owuer, whose wife and only daughter now lie sick of typhoid fever. Regardiug the cause of these sicknesses, I do not think there should be much douht, or that the sick persons deserve some punishment for their disregard of the laws of health.—*N. Y. Tribune.*

Dry Earth treatment for ulcers has been fouud very successful. Large, sloughy ulcers, after being waehed, wore covered with a thick layer of earth, over which wet paper was placed as a support, the whole being neatly bandaged. In a few days the ulcere began to clear, and when the surfaces looked healthy and granulating, a dressing made as follows was used: A piece of muslin the size of the ulcer was immersed in carbolic oil (in the proportion of one part acid to ten parts cocoanut oil); with this the sore was covered, and over that dry earth was placed, and theu moistened earth and a baudage. In a short time the healing process manifested itself satisfactorily, while all odor was entirely removed.

Choked by a Towel.—A very singular accident happened to a boy in Fulton county, Ill., a few days ago. While wiping himself with a ragged towel he inserted his head through a hole in the cloth, and while in this situation he was suddenly taken with a fit and fell, and the towel closing around his throat, he was strangled to death before he was discovered.

Domestic Economy.

House Mats.

Editors Press:—My "better half" has just notified me that I must inform the Press readers and "Sister Grangers," how to utilize old hay ropes by making them up into door mats, buggy mats, etc. Take a coarse potato sack, etretch it upon a frame a size larger than the sack; then take a coarse needle and twine, sewing the eack to the frame by a stitch which tailors would call "over and over." Prepare a needle for working in the rope from an old table fork, filing it into shape like a crochet needle, only stout enough in the cavity, or hook, to hold the rope, thus:

The work is performed the same as in making a rag mat. The rope is some half inch free on top, and cut with sharp scissors after being hooked in. This mat is not a fancy piece of work, but will be found serviceable and durable, costing nothing but labor, which becomes almost a recreation.

There are generally waste ropes in abundance around rural homesteads, which are considered useless except to tie up old harness and halter ropes, which would place a useful mat at every door of the house, and supply the buggy besides. This work may be performed on rainy days, or during long winter evenings, by old or young, man or maiden.

The plethoric wealthy need not look up for old broken tined forks, or waste hay ropes. 'Tis only for the industrious poor, securing a necessary comfort for a clean house at small expense. How many days are spent in fine fancy work by dainty fingers, while muddy boots are making muddy floors, all of which might be avoided by a potato sack hay rope mat.

John Taylor.

Chinese Camp, Feb. 11th, 1876.

Nutritive Food.

In 1868 Liebig invented a new soup for children, now universally known as "Liebig's food for infants." Wheat flour or powdered malt is transformed into dextrine or diastase, at the proper temperature, while milk and some potash carbonate are added. The principle is to produce a food as much as possible similar in composition and action to woman's milk. This exquisite mode of preparing food for infants (which I have employed for years with the most perfect success) would be a much more suitable lesson for schools of cookery than the preparation of offal into the semblance of savor. The problem of feeding the young and the poor physiologically is not easy, but it is simple if considered from the scientific point of view. The bulk of the food of the lower classes must always be bread; it is perfectly idle to believe that this can be altered. Peas, beans, and other like leguminous plants, however rich in albumen, can never compete with bread; first, because they require steeping in water and boiling for hours; next, they become hard so easily, and then are indigestible, while at all times they are not so easy to be digested as bread. But bread is not so good a food as meat; here chemistry comes in, and, as Liebig says, shows that bread soaked in broth made from extract of meat is as good food as the best meat diet. In this, as a practical proposition, I fully agree.

A man who is physiologically fed, though without regard to much taste in the food, may be in the best possible physical condition and vigorous. He has tbe privilege of the animal, which is contented with and thrives upon things which have no prominent taste and require no spice. The fowl can taste nothing of the whole corn which it eats, yet how eagerly does it eat of it! It knows its nutritive value as a matter of inner consciousness. Thus, when our population will use more meat extract, and perhaps a little loss tea and more of Liebig's food for their strength, health and vitality, and will find for themselvs that the greatest good of life is health, and that no artifices of small cookery will be worth having, which are, as they must be, unable to maintain tho body in vigor.—*Cantor Lecture.*

Mincemeat Fritters.—With half a pound miucemeat mix two ounces fine bread crumbs, or a tablespoonful flour, two oggs woll beaten and the strained juico of half a small lemon. Mix those well and drop the fritters with a dessert spoon into plenty of puro lard; fry from seven to eight minutes, drain them in a napkin and send thom very hot to tho table. Thoy should bo quite small.

Pulled Bread.—Pull the soft portion of a now loaf into pieces; let them be of equal size, say about two or three inchos each way. Dry the pieces in a slow oven or before the fire till they become a nice light brown color, and when they are quite crisp they will be ready for use. Thoy are very nice with coffee.

How to Make the Tea Go Further.—A method has been discovered for making more than the usual quantity of tea from any given quantity of tho leaf. The whole secret consists in steaming the leaf before steeping. By this process, it is said, 14 pints of good quality may bo brewod from one ounce of toa.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Prompt Subscriptions.

We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO

Saturday, March 11, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Wide Tired Wagons; Cattle Sale; American Forestry; Seeder and Cultivator, 161. The Week; Worse and Worse; The Preservation of Levees; The Fare and Freight Bill; The Dairy Advance, 168. Culture and Propagation of the Pine-Apple [Bromelia Ananas]; The 'Frisco Rein Holder; A Word to Grain Growers; Our Reporter Abroad, 169. New Books; Patents and Inventions, 172.

ILLUSTRATIONS.—The Gorham Broadcast Seeder and Cultivator Combined, 161. A New Rein Holder, 169.

CORRESPONDENCE.—Early Plowing and Late Sowing; Straw Burning Engines Again; Ventura Facts and Prospects; Tile Drainage, 162.

HORTICULTURE.—Cherry Culture—No. 5; How to Make a Fruit Ladder; Oil of Roses, 162-3.

THE DAIRY.—Point Reyes Practices; To Cure a Self-Sucker, 163.

POULTRY YARD.—Feed for Grown Fowls; Raising Ducks; Mortality and Remedies, 163.

PATRONS OF HUSBANDRY.—Grange Directory; Letters from Worthy Master Webster; From Worthy Secretary Adams; Pomona Granges; From the Granges; In Memoriam, 164-5.

AGRICULTURAL NOTES from various counties in California and Oregon, 165-172.

HOME CIRCLE.—The Closing Scene (Poetry); The Language of Animals; Farm House Chat; Bobbin's Death Scene; Respect Due to Wives; The Average Parlor; A Good Home; Wontdn't Pass; Comfort that is Real; Candle Light, 166. How to Secure a Good Complexion; Influence of the Bible; Don't Quarrel; You Will be Wanted, 167.

YOUNG FOLKS' COLUMN.—What I Saw in the Garden; Letter from Indiana; A Model Boy, 167.

GOOD HEALTH.—Rheumatic Recipes; Disease and its Cause; Choked by a Towel, 167.

DOMESTIC ECONOMY.—House Mats; Nutritive Food; Mincemeat Fritters; Pulled Bread; How to Make the Tea go Further, 167.

QUERIES AND REPLIES.—To Preserve Butter; Underground Irrigation; Hogs; Chufa Seed, 168.

THE HORSE.—No Horses; The Effect of the Whip; Care of Horses, 170.

USEFUL INFORMATION.—Chewing Gum; Decomposition—Guard Against its Effects; To Drill into Hard Steel; To Clean Looking-Glasses; Loose Screws, 170.

GENERAL NEWS.—General News Items and Miscellaneous Paragraphs, on 172 and other pages.

MISCELLANEOUS ARTICLES.—Cement for Marble and Alabaster, 163. Shower Irrigation for Gardens, 170. Sales of Farming Lands, 172.

NEW ADVERTISEMENTS.

Agricultural Implements, Treadwell & Co., S. F.; Union Box Factory, Geo. W. Swan & Co., S, F.; To Vine and Fruit Growers, Laufkotter Bros., Sacramento; Etna Mowers and Reapers, Treadwell & Co., S. F.; Stoves, Metals, etc., E. B. Mott, Sacramento; Charcoal Soap, J. W. Angell, S. F.; Studebaker Wagons, E. E. Ames, Sacramento.

The Week.

The present is like the past, but more abundant. The rain has filled every one's month and shoes, and shed its sweet influence everywhere. The city has been moving under an umbrella. The country has hardly been able to move at all. All out-door work is at a standstill—except where it has floated away on the new born streams which have ariaen under every man's wood pile. Day after day the State has been treated to a continuous drenching. Crops are assured—some of them have needed marine insurance.

The rain has been most general. Wednesday's dispatches brought tidings of downpours from Ukiah to Caliente, and from the bay to the mountains. They were one long recital of dropsical rain gauges and flooded lowlands. All previous figures of rainfalls must be increased by whole inches instead of fractions. There are reports of excessive water, and lands too wet for this season's cropping. Doubtless there will be hardships to some farms, but we trust that future facts may improve upon present estimates. This is generally the case. In a general way this latest visitation may be regarded as a surety of abundant crops and general plenty and prosperity. With such a prospect one can afford to scrape the mud from his elbows and bless the storm.

Worse and Worse.

We have not a pleasant topic to present. The dispatches from Washington on Tuesday morning contained these words: "Belknap is under the surveillance of the police." What a picture the words spread before the world's gaze: Belknap, the Secretary of War, the constitutional adviser of the President, watched by the police. This man, holding a place before the people which is regarded as especially the position of honor, of nobility, of character, with a policeman at his front door and at the area gate. This is the picture which the reader has to contemplate.

Of all the evils which recent years have brought to light there has appeared no more bold, no more shameless, no more unmitigated rascality than has been perpetrated by this man Belknap. He was the Secretary of War, as the reader knows. He held a position designed by the constitution to aid the executive in determining the best good of the people. This is the way he discharged the trust: In consideration of an amount of several thousand dollars he appointed a man to a post-tradership on the frontier. In consideration of an amount of several thousand dollars each year he kept him in the position. He made a barter of his appointing power. Instead of truly serving the people by appointing a man who would fill the post to the best interest of the people, he sold his honor, betrayed the people and stained the American name before the world by selling outright the peoples' will and pocketing the gain.

This is the latest of the forms which corruption in high places has assumed. Can it be worse? Can the service of the nation by any means whatever fall into baser hands than these itching palms of Belknap? There have been wrongs committed under the shallow claims of party advancement. All parties have more or less of this sin to answer for. There have been acts by which men in office have been indirectly gainers by official acts, but for a man in such a place to so sell his own and the nation's honor as a man would sell a dog—this is new; it is worse than what has gone before; it is worse and worse.

This is a new gem which we have had cut for the Centennial. It will be a bright phase of American development for the world to study. Of what avail our agricultural and industrial triumphs, of what moment our national progress if at the heart of the nation such blackness exists? This must not longer be. The people and the right must assert themselves. It is time that the voice of the earnest, honest and industrious classes was heard more directly in the government of the land.

We trust that the law may be found effective to inflict a punishment upon this latest, greatest rascal which shall be exemplary for all time. It is time that something was done to stem the tide of baseness which threatens every branch of American life. Let there be plainly written a warning which none can fail to heed.

We began these comments with words which suggested a picture. There is another picture in this rogues' gallery. It is in these words: At the time of presenting his resignation to the President, Belknap, overcome with shame, exclaimed: "I wish I had killed myself before this was done." President Grant replied: "I wish you had." What could be more expressive of the evil of the day?

The Preservation of Levees.

The preservation of levees is a very important matter to many of our farmers. Recently the levee commissioners of Sacramento issued an order, prohibiting riding or driving on the levees or permitting cattle to graze upon them. There would seem to be reason in this order. The treading down of the sides by cattle mounting the banks would seem injurious, and one would think that a rank growth of vegetation upon the levee would knit the soil together by a net-work of roots, and strengthen it by so doing. But by a writer in the Sutter *Banner* it appears that the Sacramento order is wholly at variance with the beliefs and practice in Sutter county. He claims that to encourage growth of vegetation on the levee only encourages the burrowing of gophers. These pests take to the levee naturally when the land is wet, and to fill the levee soil with plant roots only furnishes an additional inducement for the gophers to take to it. He maintains that the only way to preserve a levee is to keep it clean of weeds, and the best way to do this is to pasture it, letting the cattle on while the plant growth is tender and inviting. The effect of cattle tramping is claimed to be toward strengthening the levee, giving it a hard, firm surface, the better to resist the action of water, even if it should be overflowed. When a bank is made of large clods the rain moistens the earth and it packs more closely together, leaving, perhaps, a crust on top which the cattle break through when going over it. This is claimed to be more a benefit than an injury.

Here we have two methods of levee preservation, directly opposed to each other. The subject is of importance. What is the truth, as shown by the experience of readers of the RURAL PRESS?

The Fare and Freight Bill.

The Legislature is now engaged from day to day in the consideration of what is known as the Archer fare and freight bill. The bill is a detailed document prescribing particular rates for the carrying of freight and passengers from point to point. So far as the measure has for its fundamental idea the reduction of railway charges to a fair basis and commensurate with the amount of labor performed, the bill has our hearty approval. We believe and maintain that the railway is the servant of the people. The idea that a public enterprise, bnilded with the public money, is a privileged creation and above the reach of just laws and legislative enactment, gains no sympathy from us. We do not either take much stock in the claim that to restrict the charges of the Central Pacific to a fair compensation for the labor performed would stop its trains and injure the people who depend upon it for transportation. The claim that the road is a pauper, and not over profitable, does not come with good grace from those whom it has graced with millions. So far then, we say, as the bill before the Legislature has its fundamental idea to make the people rulers of an enterprise which was carried to power and success with the public money, we have a hearty approval for it.

But there have arisen grave doubts as to the wisdom of the Archer bill in some of its details. It was doubtless defective. Already important amendments have been accepted by the promoters of the bill and there should be no hasty approval of a measure which may work hardship and wrong. The right is strong and nothing else should be permitted to prevail. The Archer bill passed the Assembly by a vote in the proportion of eight to one. The Senate Committee has it still under consideration. Testimony has been taken from the magnates of the Central Pacific and from those who advocate the measure to regulate its charges. Time has been granted the Senate Committee until Saturday to report their recommendation. At this writing it is impossible to see the end. It is safe to say, however, that if this bill fail, it will not be owing to any weakness of the people in maintenance of their rights, but because the instrument which was advocated to secure them was not wisely drawn and advocated. The strength of the people on the general question of right and railroads was plainly seen in the Assembly vote of 68 to 8 in favor of the bill; because in the Assembly the vote was rather carried on the main question involved than on the minor parts, which investigation has shown to be defective.

The Dairy Advance.

In answer to our proposition for an association of California dairymen, we have already several earnest and enthusiastic letters from practical dairymen, hailing the measure as one of general importance and advantage. These letters have the ring of the true spirit of progress. They mention the points of improvement in dairy stock, manufacture and marketing which it is possible for the dairymen to attain by united action and united wisdom and experience. We are pleased to note this spirit. It has accomplished such great things in advancing the dairy at the East from one of the least to one of the greatest of the agricultural industries, both in extent and profit to those engaged in it, that we cannot doubt the wisdom of invoking the same agency to develop the dairy in this land, which is so admirably adapted to its success.

We expect soon to print some of the dairy letters which we have lately received. They are valuable first as showing the condition of the industry in the different parts of the State, and the directions in which improvement is needed. We shall be pleased to have our dairy readers everywhere favor us with the accounts of their methods and experiences and their opinions of the association which we recommend them to establish for their mutual and general advantage.

PERSONAL.—We were favored on Tuesday with calls from Mr. John Ellis, horticulturist at the University, to whom our readers are indebted for many favors, and William Webster, the landscape gardener, who came lately from the East. Mr. Webster is now engaged in laying out large grounds at San Rafael.

J. G. Lemmon, the genial botanist and contributor to the RURAL PRESS, writes us that he is "having a grand exploration of the country around Santa Barbara, and getting acquainted with its incomparable and most hospitable people." On the evening of March 2d Mr. Lemmon lectured at Santa Barbara college on "Garniture of Prince Sierra." He is now in Los Angeles county.

ON FILE.—"Botanical Excursions," J. G. L.; "Dairy Association," E. A. D.; "Dairy Society," A. W.; "Dry Sowing," E. W. H.; "Practical Questions," J. S.; "Growing Onions," R. W. W.; "Black Spanish, etc.;" "Raising Turkeys," M. E. Jr.; "Notes from Valley, San Diego," N. H. H. D.; "Stable Manures," R. A.; "Testing the Eucalyptus," W. A. T. S.; "Fruit Tree Pruning," F. G.; "Various Matters," G. R.; "Leghorns as Layers," G. W. T. G.

QUERIES AND REPLIES.

To Preserve Butter.

EDITORS PRESS:—Please inform me through the PRESS, (1) the best way to preserve butter through the warm season, from May until September; and (2) inform me how I may get the seed of the chufa, which you mention in the PRESS of the 26th. H. D. YOUNG.

San Bernardino, March 7th, 1876.

(1). To fully define "the best way to preserve butter through the warm season" involves the whole question of manufacture; for butter will not keep at any temperature which the farmer can secure, unless it is well made. We cannot in this place review all the essential points of handling butter to ensure existence and preservation of good quality, but we promise an article on these points in our Dairy department very soon. We will suppose, however, that the butter is perfectly made. To preserve its quality the secret is to keep it beyond the reach of contaminating influences. Pure butter is itself enduring. It the elements inviting decay (which are the nitrogenous matters in the buttermilk) are wholly removed and no avenue be left open for the introduction of putrefactive germs, the butter will hold its quality for a long time. We note a few of the influences destructive to flavor, which must be guarded against:

The flavor of butter is destroyed by impurities in the salt. Almost all commercial salts contain a percentage of the chloride of lime, and this substance is ruinous to butter. In cheap salt it is present in quantities which will destroy the butter in spite of the best care. Use nothing but the best and purest salt.

The flavor of the butter is overcome by the absorption of flavoring from the package if it remains long in it. No wooden package, should be used without first soaking it thoroughly in brine made with pure salt. A good way is to fill the package with strong brine, scalding hot, and let it stand till cool.

Germs of putrefaction gain access to the butter from the air. Hence the butter should be kept wholly from contact with the air. In fact, that form of packing which comes nearest to hermetical sealing will be found best, if butter is to be kept for a long time. Thus in early days butter was packed in casks in New York, the casks filled with pure strong brine, headed up and sent to California around the Horn, and it arrived here in good condition.

For packing to keep a few months, perhaps no better way can be found than to use brine-soaked tubs. Prepare your tub carefully. Put a *thin* layer of salt in the bottom. Then pack in tightly a layer of butter three inches thick. Proceed with a thin layer of salt and a layer of butter until within an inch of the top. Put over the top of the butter a piece of muslin cloth. Sprinkle on the cloth a teaspoonful of powdered saltpeter and a handful of white sugar. Over this put a layer of salt half an inch thick. Now make a strong brine, add to it a teaspoonful of saltpeter, and pour the brine over the top of the salt. This will cause the salt to solve closely together and form a covering which will shut out air as perfectly as possible. Cover the package carefully with a tight lid. If this package be put in a cool place, where there is pure air, free from all odors, like those from decaying vegetables, etc., it may be trusted to keep the butter, if the butter has the advantage at the outset of being perfectly made.

(2). We answer the query in another place.

Underground Irrigation.

EDITORS PRESS:—A querist asks in last week's RURAL for information upon the subject of underground irrigation. I have practiced it on a small scale for several years. I lay down two inch tile ten feet apart, so the top of the tile is just below the plowshare. I give them just fall enough to run the water along, and fasten up the lower end. I make the entrance large enough to have plenty of head, then turn in a good stream of water that will force its way through. By this process the land never bakes, but keeps moist and loose. I believe one-fourth the water used under the ground is better than the whole on the surface.

Santa Rosa, Cal., March 1st. T. S.

Hogs.

EDITORS PRESS:—Will you inform me where I can get five Poland China hogs, pure blood, and the same of Berkshires? SUBSCRIBER.

Santa Barbara, Feb. 28th.

We have printed several inquiries for Poland China hogs, and the only reply we have received gave a name of an Eastern breeder, which we printed in the PRESS of Feb. 26th. We are not aware of any pure blood Poland Chinas for sale in this State. In Berkshires, our queriat will find the advertisement of R. S. Thompson in our columns. We believe Mr. Thompson to be a gentleman who gives general satisfaction to his customers.

Chufa Seed.

EDITORS PRESS:—I take your truly valuable paper, and in issue of February 26th saw an article on chufa. I want some of the seed, as I am well interested in raising hogs and would like to try it by all means.

Petaluma, Cal., March 3d. J. C. FIELD.

The chufa seed has been ordered from France by the Department of Agriculture for general distribution. If our querist will write to Hon. Frederick Watts, Commissioner of Agriculture, Washington, D. C., asking for the seed, we doubt not he will receive a sample as soon as the importation is made.

Culture and Propagation of the Pine-Apple [Bromelia Ananas].

EDITORS PRESS:—The inquiries made by your correspondents in relation to "cuttings" and "slips" of the pine apple, where they can be bought by the "hundred or thousand," implies rather a random desire for wholesale culture without necessary prerequisite knowledge of what the plant is, or what is required for its general conditions for cultivation. In the first place, we will call things by their proper names, and then probably some of your readers may understand what we are talking about. The pine is propagated by its

Crowns and Suckers.

The former is that which grows immediately on the top of the fruit, and hence its name of "crown." This crown should never be cut from the fruit, but screwed out by hand, and for this reason, that, if required for propagation the fibrous part leading to, and supporting the crown in its development on the fruit, are required for the emission of roots in its propagation, a stringy substance not required in the fruit when used for dessert. Hence the reason why the crown should be screwed out and not cut off with a knife. At the base of the fruit in some varieties (such as *globes*) will be found a number of small pine plants; these are termed "gills," seldom ever used in propagation, for the reason of their smallness and the length of time taken in their development. We now come to the principal mode of propagation, namely the

Sucker.

Suckers are produced from the stem of the plant, having their origin in buds thickly set in some species and very sparingly in others. These suckers are generally allowed to grow to various sizes, some 12 and others 18 inches in hight, before their removal from the parent plant, but as a rule, the more suckers the plant sustains whilst developing its fruit, the smaller will the latter be when ripened.

The pine multiplies itself from its crown to its roots, and so we have "root suckers." These latter are seldom resorted to as a means of propagation, for on their appearance they are generally destroyed, because of their influence in the absorption of fluids necessary to the proper development of the plants; and again, when cultivated, they grow unsightly, their leaves growing generally to one side, and when left to fruit the fruit is so puny that it "don't pay."

Seed.

The pine-apple will also seed, but not in such great number as the pine belonging to the natural order of *conifera*. Sometimes a seed or two may be found in a fruit, and from these have originated the different varieties now in cultivation, especially in Europe.

The Best Pine-Apples and How to Get Them.

Perhaps the best flavored pine-apples ever eaten are in Europe, also some of the heaviest in weight. The city of New York is supplied with very splendid fruit and San Francisco with miserable trash. Hence, if we could produce this fruit somewhere in this State, we should not require, or rather buy, that which cannot be sold in the Eastern or European markets. The varieties best adapted for open field cultivation in California are those that are the hardiest, and these happen to be the best flavored; namely, the common Queen and New Providence. To obtain these true to name, they should be obtained from England. Sending an order to any of the West India islands for named varieties would not be understood, although some of the best sorts they have there may be so obtained. In England, at the present, some 30 varieties of pines are grown, and fully described by the London horticultural society. Some of the varieties will endure and also require more water than others, and for this reason, in trying the experiment of pine growing in California, we recommend the Queen, New Providence and Enville.

Essentials of Growth.

The pine is a native of tropical America, and although found in Africa and many other parts where the summer temperatures are very hot, still we know it will thrive in much lower temperatnres if the thermometer does not sink but little below the freezing point. *Evenness* of temperature, though of a much lower degree than is found in many parts where the pine-apple is grown, seems more of necessity than high temperatures subject to opposing variations. Persons who are better acquainted with the geography of California than we are, could probably select such locations for this purpose, but whatever be done should be done on a small scale, for, whether proving a success or failure, one thing is sure; that is, the experimenter will pay for his experience.

Perhaps the greatest difficulty in the cultivation of this fruit here would be the heavy rains of winter. The leaves, so formed with upright curvatures, would naturally retain the water in the hearts of the plants. This would remain, perhaps, for a period of four months before natural evaporation could be effected. Whether the plant would live through and resist this, nothing but a practical test could decide. In planting out, we should start with the experiment in the spring, after the rains were over and when the soil becomes warmed. Exposures to heavy winds should be avoided, and plant on land naturally well drained. The quality of soil seems not so much of importance as evenness of temperature, for we have seen splendid fruit produced from soils varying from almost a sand to a heavy, stiff loam. We have hinted at the probable contingencies that would have to be encountered in the cultivation of the pine-apple, and this may be of more service to those contemplating a trial than to be led blindfold into the supposition that, because California is semi-tropical, it will grow all the known tropical fruits of the world. The intelligent horticulturist, when understanding the required conditions for cultivation, then uses his reasoning powers to achieve that which he desires, and credit should be given him, for he seldom ever fails.

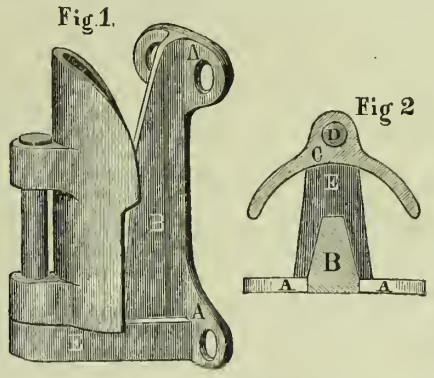
Crowns taken from the fruit require drying at the base before being put into soil, or they will rot. Suckers taken off can be planted as soon as convenient, but the soil should not be wet or they will rot.

Now, who will be the first man that will show us a lot of pine-apples growing in the open air of California? I don't think that there are any "I cant's" in California.

JOHN ELLIS, Horticulturist.
University of California.

The 'Frisco Rein Holder.

When a teamster wants to stop he pulls the reins and his horses are drawn back so that they cannot stretch the traces. Some exceptional horses can draw a light wagon by the bit, but the strain is so great that they will not go either fast or far, and ordinarily will stop so



A NEW REIN HOLDER.

soon as they find that the draft is thrown on the mouth, and not on the shoulders, where it should be. These facts are the basis of the rein holder, a device to keep the reins in the position in which the driver places them when he stops. Having thus fastened the reins, he can with safety leave his team anywhere far from a hitching post.

Several kinds of rein holders have been made, but that called the "'Frisco rein holder," invented by Jefferson Kindleberger and patented March 10th, 1874, is the smallest, lightest, simplest in construction, the most convenient for use and for fastening to different vehicles, and the cheapest. It is made of malleable iron or brass, weighs from two to four ounces and costs from 50 cents to $5—the last the price for plated work. There are different patterns, suited to various vehicles and positions, not for catching leather straps only, but also clothes lines, ropes, cables, shoe strings, etc.

The illustration by our engraver shows the rein holder in three positions. Fig. 1 represents it in perspective, as it may be fastened by screws to the front of a wagon bed, or with the help of clamps on the front of the iron frame of a buggy dash-board. Fig. 2 represents a cross section of the same rein holder empty. Fig. 3 represents the same gripping the reins. *A* the back, *B* the tongue, and *E* the base, are cast in one piece. *C* the crescent—the convex side of which is turned towards the horses—swings on the pintle *D*, and whenever the reins are pulled, presses them against the tongue *B* and holds them fast; the harder the pull, the tighter the grip. Every vehicle, header, harrow, plow, cultivator, and other article drawn by horses should have a rein holder, even if only to keep the lines out of the dirt. The driver can slip the lines in or out without effort. The patent, obtained by Dewoy & Co., patent agents, is the property of J. S. Hittoll, 529 California street, S. F.

THE San Francisco Board of Education have passed a resolution to close the public schools of this city on the 30th day of April next. Cause, lack of funds, $130,000 being needed to continue the schools for the year.

A Word to Grain Growers.

If we are not mistaken, it has been during the seasons of large crops that the wheat speculators have cornered the farmers. Can and will they not do it again? What is to hinder? Wheat operators have lost heavily the past two years. Many of you have latterly received extra prices. Can you otherwise than expect speculators to recover their losses? What is the best method for you to protect yourselves against the imposition of freight rings and monopolies, is a serious question just now. Things have taken care of themselves in this line so nicely in your favor lately that we are thus led to ask if you are not likely to be caught napping with a large crop on your hands and the ships all within the circle of your old toll gatherers? We are quite certain of a large yield. An unusually large acreage has been sown. The store-houses cannot accommodate such a crop so completely as might be desirable if prices are low. Much will have to be sold off. Can you say, as with a small crop: "We hold the wheat and you can hold your ships?" As in this matter you are "all in the same boat," cannot the large producers unite with the smaller ones and charter ships at present rates of tonnage with safety, rather than take the chances of having all the charters fall into hands that may run up freights at the expense of every farmer, as has generally been the case in seasons of large crops? We advise farmers to discuss these questions seriously, quietly and neighborly, and then act on safe ground only. Can you not afford to encourage ships this way by chartering at moderate rates in advance? Our aim is to advance timely suggestions rather than advise in this important matter.

Prizes for Writers.

California has, as we have abundant reason to know, some of the ablest, best informed and most practical agricultural writers in the country. We now have information of an opportunity for them to sharpen their pens and their wits, and arrange their many experiences in a prize contest. The Massachusetts horticultural society, through its chairman of the Committee on Publication and Discussion, W. C. Strong, of Boston, offers the following prizes for agricultural essays:

For the best Essay upon the Culture and Varieties of Roses	$25 00
For the best Essay upon the Culture of Flowers and Foliage for Winter Decorations and the Market, with a list of the most desirable varieties	25 00
For the best Essay upon the Culture of the Squash and Melon, with a list of the best varieties	25 00
For the best Essay upon the Ripening and Marketing of Pears	25 00
For the best Essay upon the Improvement and Ornamentation of Suburban and Country Roads	25 00

The essays are to be sent to the Committee on Publication and Discussion, Horticultural hall, Boston, so as to be received by the first of November, in sealed envelopes, unsigned, but accompanied by the name of the writer in a separate sealed envelope. Competition is open to all.

Now it appears to us there are points on some of the above subjects which could be most successfully treated by California writers. It is true conditions are different here than at the East, but there is wide interest in California practices and successes. We can lead the world on pears and roses. We have no doubt that good fresh essays on these subjects would stand an excellent chance in the contest. At all events it will be a good opportunity to make our methods and successes known.

INSECTS IN THE SENATE.—A few weeks ago we gave notice of the introduction of a bill in the United States Senate for the protection to agriculture from injurious insects. It was referred to the Committee on Agriculture, and is reported back to the Senate in amended form providing for the appointment of one commissioner instead of three, who shall gather information relative to the Rocky mountain locust, the army worm, chinch bug, Hessian fly, potato bug, and other destructive insects, in order to devise measures for their destruction. The results are to be reported to the Commissioner of Agriculture, and sent by him to Congress. The commissioner is to be appointed by the Secretary of the Interior, the Secretary of the Smithsonian Institute and the Commissioner of Agriculture, and to serve for one year, at a compensation of $4,000 and expenses.

A PROSPEROUS VALLEY.—We are informed by Joseph Perrin, of Jonesa, Tulare county, that the farmers in the valley are advanciug rapidly toward practical and tangible prosperity. The settlement is only three years old, and the earuest farmers located there when agricultural success in the locality was only an exporiment, and a hazardous one at that. Last year they obtained water enough to dispel doubts concerning the fertility of the soil when properly irrigated. Now they have the settlers' ditch in complete running order, with water enough to supply all the stockholders. At present money is scarce, but the prospect cheers every one. The valley is fast filling up with the bone and sinew of the land, and we rejoice with the farmers in their bright out-look.

Our Reporter Abroad.

NUMBER ONE.

Sacramento Business Houses.

A walk about the "City of the Plains" soon convinces the most casual observer that there is no lack of enterprise or want of appreciation of the fact that the capital is the center of a great agricultural country. While the intelligence of the farming community demands to be supplied with everything new and useful, the enterprising dealers keep themselves prepared to supply every want. Their warehouses are filled with the most improved machinery and implements, a healthy and friendly competition urges on a lively trade, and it is pleasant to see that no firm is disposed to press the claims of its own specialty by decrying that of another. It may not be uninteresting to the thousands of your readers who look to Sacramento for their agricultural implements to note some of the houses engaged in this business. The first visit was to

Keller & Co.,

Who are young men full of zeal and energy, guided by intelligent experience. Theirs is a general business, comprising almost every tool which can be used on a farm, with some prominent special articles for which they claim superior excellence. Among these is the Excelsior mower, and Haines' improved single geared header. But they are especially proud of the success of the "Gorham broadcast seeder and cultivator combined," which they say has become very popular with some of the best and largest farmers in the State. Dr. Glenn, of Jacinto, who seeds 40,000 acres of wheat, uses 20 odd of these machines. Jno. Mitchell, of Modesto, has 16, and many other prominent farmers were named who have them in use.

Next we are at the counting room of

Marcus C. Hawley & Co.,

A well known S. F. house, whose branch establishment here is under the care of H. H. Linnell, a capable and courteous manager. Their stock shows a complete assortment of farm implements and tools, embracing agricultural and general hardware in great variety, as well as all the large improved machinery of the day. They manufacture Rice's straw burning engines, and sell Meadow King mower, Buckeye seed drill, Regulator wind mills, Deere Moline and gang plows, etc.

E. E. Ames,

The general and solo agent on the Pacific coast for the "Studebaker Bros. manufacturing company" was next visited. The title of agent is, however, far too modest in this case, for although his two floors, 40x160 feet, are compactly filled with the running gear of wagons, buggies and carriages brought from the Studebaker factory, the bodies and some other portions are made here by Mr. Ames, who can thus supply to order any sort of wagon body or buggy top that is wanted. He has adopted an ingenious and complete form for his price list, which gives the seeker after wagons—from a light trotting buggy to a six-horse wagon—all necessary information. Next we come to

The Sacramento Plow Co.'s Works,

W. B. Ready and R. C. Clark, managers. Here are made plows of many kinds, with a foundry attached producing their own castings. Their favorite plow seems to be the "Iron King gang," which, they say, sells freely wherever introduced. They are also interested in an improvement which they think is a successful combination of level-land and hill-side plow. This company is now manufacturing the fruit dryer which was patented by Goo. A Dietz, and are prepared to supply a large demand during the coming season. They exhibit beautiful and perfect samples of grapes, figs, apples, indeed almost all kinds of fruits, and some meats dried and cured by this process in an incredibly short time. They make all sizes, to hold from 10 bushels to 10 tons.

The establishment of

E. B. Mott, Jr.,

Though not an agricultural one alone, is one of great importance to the farmers and their wives, for here are found such a variety of stoves, cooking and heating, as will meet every want and please every taste. They make tinware and supply tinners' goods largely to the trade throughout Eastern and Northern California and Nevada.

It is hardly necessary to say much about the firm of Baker & Hamilton, which is the oldest agricultural house in the State, and is probably known to all your readers. But some of them may not know that their large San Francisco business is a branch of the house here, this being the oldest establishment. Their factory at San Leandro turns out plows, harrows, wagons, seed sowers, etc. They are agents in Sacramento for the Buckeye mower, and in San Francisco for the Champion; also, for the Buffalo Pitts thresher and Bain wagon.

Time presses and mention of some other enterprises in this city must be postponed until next week. J.

Sacramento, Mar. 7th, 1876.

[Our new correspondent confines his attention this week to notices of business houses. These are important, for business is the backbone of any city. Our readers may expect something more of the variety and spice of life hereafter.—EDS. PRESS.]

The Horse.

No Horses.

Editors Press:—That amusing idea of a horseless world, in last week's Rural, suggests that we have had horseless nations, if not a horseless world. In Prescott's history of the conquest of Mexico by Cortez, it is stated that the success of Cortez in his first outset, against the vast odds against him, was owing more to the few cavalry he had than to the fighting superiority of his Castilian veterans. The bravest army of modern or ancient times would not be unaffected by the consideration of what was the "better part of valor," under an unexpected furious attack by a brigade of veritable centaurs.

But the poor Mexicans, strangers to the horse, regarded the few cavalry of Cortez as something worse than fabled centaurs with but one head. Their conception of man and horse as constituting but one monster animal, induced the greatest consternation, from which they could but flee as for their lives. Yet, without horses, Mexico was teeming with a dense population.

The king of Israel was prohibited from "multiplying horses" to himself. By Job's description of the war-horse, and incidental allusions to the horses and chariots of Egypt, it seems that the horse mainly served as an indispensable complement to courtly luxury and their military munition. It was the "ox that knew his owner and the ass his master's crib," and "increase is by the strength of the ox." But now we have all become "popular sovereigns" by our "inalienable rights," or by the power and prestige of riches and the same appreciating use for the horse that Darius had at Babylon. It has been argued that the ox and ass—the ox especially—would now do plowing, hauling, etc., and be more profitable than the horse. If we could dispense with our prejudices against horse beef, he might then have the preponderance in the scale of economic balances. The vast strides of our progress—railroads, steam plows, and almost steam everything else, seems to be dispensing not only with ox power but with the "slow coach" horse himself; and I think we may confess that the horse is more a necessity to the acquisition of wealth, to its enjoyment, to the *ultima thule* of individual and national ambition, than to the real wants of man. For the gift of life was coupled with the injunction, not to do what men and nations have been doing—laboring for riches and fighting for their possession—but it was "to be fruitful and multiply and replenish the earth," fill it with people; and man was to have dominion over fish, fowl and beast, and not over one another as was and is still the case. The horse, I think, has been a necessity more to man's wilful way and its wants, than as indispensable to teeming population and the pursuits of peace. C. M.

Petaluma, Cal., Feb. 23d.

[Our correspondent takes the hard side of the question, and his position is as new as it would be difficult to maintain.—Eds. Press.]

The Effect of the Whip.

I would caution those who train or use horses upon another point, viz: that of exciting the ill-will of the animal. Many think they are doing finely, and are proud of their success in horse-training by means of severe whipping, or otherwise rousing and stimulating the passions, and then, from necessity, crushing the will, through which the resistance is prompted. No mistake can be greater than this, and there is nothing that so fully exhibits the ability, judgment and skill of the real horseman, as the care displayed in winning, instead of repelling the action of the mind, Although it may be necessary to use the whip sometimes, it should always be applied judiciously, and great care should be taken not to rouse the passions, or excite the will to obstinacy. The legitimate and proper use of the whip is calculated to operate upon the sense of fear almost entirely. The affectionate and better nature must be appealed to in training a horse, as well as in training a child. A reproof given may be intended for the good of the child, but if only the passions are excited, the effect is depraving and injurious This is a vital principle, and can be disregarded in the management of sensitive and courageous horses only at the risk of spoiling them. I have known many horses of a naturally gentle character to be spoiled by whipping once, and one horse that was made vicious by being struck with a whip once while standing in his stall.—*Prof. Wagner.*

Care of Horses.

The London Horse Book says: All horses must not be fed on the same proportion, without regard to their ages, their constitution and their work; because the impropriety of such a practice is self evident. Yet it is constantly done, and is the basis of disease of every kind.

Never use bad hay on account of cheapness, because there is no proper nourishment in it.

Damaged corn is exceedingly injurious, because it brings on inflammation of the bowels and skin disease. Chaff is better for old horses than hay, because they can chew and digest it better.

When a horse is worked hard its food should be chiefly oats; if not worked hard its food should be chiefly hay, because oats supply more nourishment and flesh-making material than any other kind of food; hay not so much.

Rack feeding is wasteful. The better plan is to feed with chopped hay, from a manger, because the food is not then thrown out, and is more easily chewed and digested.

Sprinkle the hay with water that has salt dissolved in it, because it is pleasing to the animal's taste and the hay is more easily digested. A teaspoonful of salt in a bucket of water is sufficient.

Useful Information.

Chewing Gum.

Under the incorrect name of hemlock or spruce gum, considerable quantities of an exudation from the hemlock or hemlock spruce are annually sold. We say incorrect name, as the article is in no sense a gum, but is properly a turpentine, consisting of a resin and a small proportion of volatile oil. It is similar in its nature to the white turpentine which exudes from the Southern pine, but having less oil, is much harder. It is also called Canada pitch. The hemlock while growing contains very little resinous juice, and the lumber is very free from it, but when the tree from any cause begins to decay, the turpentine or "gum" appears upon the surface in nodules, some of which are the size of a walnut or smaller, while others are as large as a hen's egg. It is a very common thing among young persons who live where the hemlock abounds, to get into the habit of gum chewing; the orientals use mastic for strengthening the gums and perfuming the breath, and it is possible the use of chewing gum originated in some such notion. The chewing gum of a few years ago was this turpentine of the hemlock, or spruce gum, refined, but this has latterly been superseded by paraffine, which is a white wax-like product of petroleum or coal-oil.

The resinous product yielded by the Norway spruce in its native forests is known in this country as the Burgundy pitch, and is much used for making a stimulating plaster; the hemlock pitch is also used for the same purpose, and very closely resembles the imported article in its effects. In one way and another the article finds a sale at prices which make it worth while for those who live near hemlock forests to collect the "gum," as it is always called by the country people. Early in the fall or late in the summer, after the haying is over, some of the farmers go a "gumming," as it is styled; they go to the woods, where they erect a log shanty, and proceed to collect the gum for the market. A long pole is provided, below the tip of which is fastened a circular box or receptacle, generally the leg of a boot, kept in shape by a circular piece of wood, through which the end of the pole projects; on the end of the pole is fastened a chisel. Having a satchel slung over his shoulder, the collector proceeds in search of gum-bearing trees, and when found, uses the implement. The gum detached by the chisel falls into the box beneath, and from this it is transferred from time to time to the satchel or haversack. These receptacles are emptied into a large bag, and when this is full it is taken to the log hut. During rainy days, evenings and at odd times, the gum is freed from twigs, bits of bark and other impurities, and made ready for market. The collecting of gum is sometimes very profitable; in some cases over $2,000 have been realized by two men in a single season, but such returns are exceptional. The season lasts until the weather becomes too cold to work in, when the camp is broken up.

Decomposition—Guard Against its Effects.—Refuse and waste are the natural enemies to the health of mankind. The products of their decomposition pervade every household. Their offensive odors are charitable warnings to guard against. From the cellar, store-room, pantry, bed-room, sitting-room and parlor; from decaying vegetables, fruits, meats, soiled clothing, old garments, old furniture, refuse of kitchen, moldy walls, everywhere, a microscopic germ is propagating. It contains in itself the seeds of disease—all that is needed is the proper soil or condition of constitution adapted for its reception. Each germ may find its specific habitat, and hence develop into some specific malady. Typhoid, typhus, cerebro-spinal, relapsing or scarlet fever, measles, small-pox, roseola, cholera or some other form of disease may result. Cleanliness, pure air, sunlight and pure water are the antidotes. God indicates and provides these in abundance. He who neglects or rejects these deserves to suffer, as he surely will.

To Drill into Hard Steel.—Make your drill oval in form, instead of the usual pointed shape, and temper as hard as it will bear without breaking; then roughen the surface where you desire to drill with a little diluted muriatic acid, and, instead of oil, use turpentine or kerosene, in which a little gum camphor has been dissolved, with your drill. In operating, keep the pressure on your drill firm and steady; and if the bottom of the hole should chance to become burnished, so that the drill will not act, as sometimes happens, again roughen with diluted acid as before; then clean out the hole carefully, and proceed again.

To Clean Looking-Glasses.—Wash thoroughly a piece of soft sponge, and remove all gritty particles from it, dip it slightly into water, squeeze it out again, and then dip it in some spirits of wine; rub it over the glass, dust it with some powdered blue or whiting sifted through muslin; remove it lightly and quickly with a clean cloth, and finish with a silk handkerchief. If the glass be a large one, clean one-half at a time, otherwise the spirits of wine will dry before it can be removed. If the frames are gilt, the greatest care must be taken to prevent the spirits of wine from touching them. To clean such frames, rub them well with a little dry cotton wool; this will remove all dust and dirt without injury to the gilding. If the frames are varnished, they may be rubbed with the spirits of wine, which will take out all the spots and give the varnish a superior polish.

Loose Screws.—It is a common thing when a screw or staple becomes loose to draw it out, plug up with wood and re-insert. But screws and staples so secured soon come out again. It has been found that a much better way is to fill up the holes tightly with cork. Screws and irons so secured will remain perfectly tight as long as when put into new wood.

Shower Irrigation for Gardens.

In many parts of the State, and more particularly in Santa Clara valley, where gardening and berry raising are carried on extensively, the cultivators are obliged to stir the surface of the ground after each flooding in order to prevent "baking." Experience has proved that the adobe lands between San Jose and the bay, and also further north even until salt land is reached, are capable of producing a very abundant crop of strawberries, though they are not considered as sweet as berries raised on higher ground. Still, the berries sent to the San Francisco market from the farms along the low land near Alviso command the highest price, being large and highly colored. Artesian wells furnish water for irrigating all this section, which is universally done by flooding. The opinion has been often expressed that if some system of shower irrigation could be adopted without too much expense the same amount of water could be made to irrigate more land than by the present process of flooding, while the surface of the ground would be much less liable to bake.

English agricultural journals are at present warmly praising Sir Isaac Brown's new method of shower irrigation, which has lately been put in practice for irrigating meadows in that country. It consists of an arrangement of perforated pipes laid at regular intervals through a piece of land, from which pipes water, under hydraulic pressure, is distributed in a shower over the entire surface. An experiment recently made near Windsor, England, on a piece of meadow land which had been exhausted, gave the most satisfactory results, the pasture being sufficient for six head of cattle to the acre, besides a crop of hay taken off during the summer. The pipes were placed 50 feet apart, and the water being forced into them was distributed on either side of the pipe 25 feet. On six acres of this pasture 200 head of Leicester sheep were kept in a fat condition the year round.

The greatest item of cost in gardening and berry culture is the matter of irrigation. In some localities, especially in the rich berry district west of San Jose called the Willows, the water for irrigation has to be supplied by horse power and windmill pumps. In order to save waste by seepage, wooden troughs are laid throughout the field, which are almost as expensive as pipes. Constant watching is necessary in irrigating to guard against gopher holes, and for this one or two hands must follow each stream of water down the row, and the moment the water finds a gopher hole, the dirt must be pressed down and the waste stopped. A double pump with two horses will only furnish water enough to irrigate one row at a time, which makes it very tedious and costly work to irrigate a field of a few acres. The vines must be planted on an elevated row so that the water itself will not be allowed to touch the vines, lest the young and ripening fruit be covered with fine sand, which greatly injures the quality and sale of the fruit. By a system of pipes such as we have described, the water from the well would be conveyed through the pipes and showered down on the vines free of sand or dirt, thus washing and refreshing the leaves, and applying the moisture direct to the plant and its roots, where, by the present method, the water must reach the roots by seeping through from either side. Every gardener knows how much fresher and brighter flowers and shrubbery appear when watered from a hose or by the sprinkling pot than when flooded. The only question is as to the relative cost of constructing such works. The cost of operating them would not be so great as the present method, as no men with bare feet and hoes would be required to keep the water out of the gopher holes. There would be no loss from seepage, every drop being applied direct to the ground where it is needed. We are inclined to believe that this plan might be made of practical benefit in irrigating gardens, flower beds and berries of all kinds. At all events, it will not cost much to try the experiment in a small way. The tanks, eight or 10 feet high, will furnish pressure sufficient to drive the water, if the pipes are laid a short distance apart.—*Chronicle.*

DEWEY & CO.

American & Foreign Patent Agents.

OFFICE, 224 SANSOME STREET, S. F.

PATENTS obtained promptly; Caveats filed expeditiously; Patent reissues taken out; Assignments made and recorded in legal form; Copies of Patents and Assignments procured; Examinations of Patents made here and at Washington; Examinations made of Assignments recorded in Washington; Examinations ordered and reported by Telegraph; Rejected cases taken up and Patents obtained; Interferences Prosecuted; Opinions rendered regarding the validity of Patents and Assignments; every legitimate branch of Patent Agency Business promptly and thoroughly conducted.

Our intimate knowledge of the various inventions of this coast, and long practice in patent business, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing.

The shrewdest and most experienced Inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the columns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

Foreign Patents.

In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents, including Great Britain, France, Belgium, Prussia, Austria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Italy, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chili, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

No models are required in European countries, but the drawings and specifications should be prepared with thoroughness, by able persons who are familiar with the requirements and changes of foreign patent laws—agents who are reliable and permanently established.

Our schedule prices for obtaining foreign patents, in all cases, will always be as low, and in some instances lower, than those of any other responsible agency.

We *can and do* get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country SOONER than any other agents.

The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the and patentability of inventions discovered here than any other agents.

Situated so remote from the seat of government, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by extra time consumed in transmitting specifications from Eastern agencies back to this coast for the signature of the inventor.

Confidential.

We take great pains to preserve secrecy in all confidential matters, and applicants for patents can rest assured that their communications and business transactions will be held strictly confidential by us. Circulars free.

Home Counsel.

Our long experience in obtaining patents for Inventors on this Coast has familiarized us with the character of most of the inventions already patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicants of any knowledge we have of previous applicants which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advise of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency

Engravings.

We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

DEWEY & CO.,

United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.– Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for salo at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and tbeir Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Bucks and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Counoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,
San Francisco.

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may he paid in the products of the Alden factories. We guarantee against infringements. Tho Alden is the oldest, the best and the cheapest procoss known for preserving fruits, vegctables, meats, etc.

It would be unwiso to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, $4 a year.

DEWEY & CO., Publishers,
No. 224 Sansome street, SAN FRANCISCO.

SUTTER CREEK, February 26th, 1875.

MESSRS. DEWEY & CO.—I have received my Letters Patent through your Aagency. nd, for your promptness, accept my thanks. Yours, S. N. KNIGHT.

DURYEA'S SATIN GLOSS STARCH

AND

DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast,
San Francisco, California.

CANDLES.

MITCHELL'S

New York Candles

Full Weight and 14 ounce.

Will be found on comparison to be

Unequalled in Quality.

14 GMG OZ.

STEARIC ACID CANDLES

GEO. M. GRANT & CO.
PHILADELPHIA.

FOR SALE BY ALL THE LEADING JOBBERS.

Geo. M. Grant & Co., Agents. San Francisco.

Scientific Press **ENGRAVING** COMPANY,

OFFICE OF THE Mining and Scientific Press, **224 Sansome St.,** San Francisco, CAL.

MACHINERY, BUILDINGS, PORTRAITS, LANDSCAPES, TRADE-MARKS, LABELS, SEALS, MONOGRAMS, etc.

DESIGNED AND ENGRAVED

IN THE HIGHEST STYLE OF THE ART.

E. SCHULTZE, *MANAGER.*

DEWEY & CO., *Publishers and Patent Agents.*

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
El Dorado, El Dorado Co., Ca

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't — I. G. GARDNER...V. Pres't
G. P. KELLOGG, Treasurer — A. W. THOMPSON....Att'y
I. C. STEELE.....San Mateo — CHAS. LAIRD.....Salinas
A. WOLF.....Stockton — A. D. LOGAN.....Colusa
W. H. BAXTER.....S. F — G. W. COLBY.....Butte Co
J. C. MERRYFIELD, Dixon — C. J. CRESSEY....Oakland
A. B. NALLY....Santa Rosa — E. W. STEELE, S. L. Obispo
FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....	$3,026,378.00
TOTAL PREMIUMS.....	63,306 49
LOSSES PAID.....	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,
Cor. Second and Santa Clara Sts., San Jose.
CAPITAL, - - - - - - - - - - $100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER
Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.
Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

Napa Valley, near Napa City,

240 Acres of Land For Sale.

The whole or one undivided half interest, at thirty-two dollars per acre. Fenced in five fields. Living water in every field. Orchard and Vineyard in bearing of choice varieties. Buildings good. Terms easy. A great bargain.

STERLING & THOMPSON,
Napa City, Cal.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated. bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—post nearly $245,000. Will be kept First-class, at $2.00 cer day, and less by the week or month.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier. Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill

(Continued from Page 165.)

of extensive hay and grain fields in the finest growing condition and plenty of rain at the opening of spring has convinced the farmers of Montezuma hills that they are on the road to prosperity, and may congratulate each other, exchanging feelings of good will that will not die out when successful farming is less common to them all than it is now. Light rains and warm weather have so far taken the place of the very injurious frosts that fell about this time last year. We have had occasional frosts, but they were so light that a late riser would observe that there was dew upon the grass. The west winds so common with us, which are so healthful but seldom accompanied by rain, have been few. The parching south winds have been fewer than ever before. The consequence is, that as we are in a windy country we have very frequent southeast winds and they are sure to bring a welcome rain—at least more welcome than the drouth that is the event of its absence. AMPHION.

Rio Vista, Solano Co., March 3d, 1876.

SONOMA.

FARMING NOTES.—*Democrat*, Mar. 4: Supervisor Weatherington has put in 200 acres of wheat on that portion of the Austin tract south of the Sonoma road. It is rolling land and a virgin soil. The season is propitious and it is not unlikely that Mr. Weatherington will reap a rich harvest. D. A. Hudson has in 200 acres of barley on the Hudson tract, anjoining the Austin farm. It is likely that Dave will reap coin from this, which is the largest field of barley we know of in the county.

THE NEXT FAIR.—*Argus*, Mar. 3: At a meeting of the Board of Directors of the Sonoma and Marin District agricultural society, held at the office of the Secretary, the following business was transacted: The resignation of L. Ellsworth as President was received and accepted, and H. Meacham, a member of the Board, was elected to fill the vacancy. George D. Green was then elected to fill the place of Mr. Meacham as a member of the Board. Monday, October 9 h, was fixed upon as the time for the opening of the next fair.

SUTTER.

FUMIGATING GOPHERS.—David Crammer has devised a way for destroying gophers and ground squirrels which is certainly cheap and, as he claims, effective. He wraps a lot of sulphur in a piece of paper, thoroughly saturates the whole with coal oil, drops it down the rodent's burrow and closes up the aperture, the result being that the fumes of the sulphur permeate all parts of the hole and kill the inmates.

TULARE.

THE OUTLOOK.—*Delta*, Mar. 2: The promise was never more favorable for this valley than at the present time. From the first of November until now the weather has been as seasonable as could be wished. Much grain has been dry sown and is now in the boot. The acreage is nearly double the greatest amount ever cultivated before, and the crop is now, as it were, nearly out of danger. We have but little data upon which to base an estimate, but we feel justified in believing that nothing short of an extraordinary contingency will prevent us from approximating 3 000,000 bushels of wheat for shipment from Tulare county. The wool clip will be the best ever sent forward, and will doubtless be sold upon a rising market. Generally the sheep of California become impoverished in December, so far as to produce a rotten place in the middle of the fiber. This year the fall was so favorable as to enable the flocks to maintain a continuous healthy condition. The absence of dust and the numerous warm rains have been favorable to the production of clean wool; and it is fair to believe that instead of 30 pounds of washed wool from 100 pounds of average clip, we shall, this spring, get 65 pounds. The wool and mutton to be exported from this county this year will not net less than $1,000,000.

YOLO.

RAISIN CULTURE.—*Mail*, March 2: R. B. Blowers furnishes us with the following, which gives some idea of the interest which is being taken in the culture of the raisin grape in California, and in other parts of the United States. He has made, during the season of 1875, and shipped to market, 1,500 boxes of 20 pounds each, or 30,000 pounds. These raisins were made from the Muscatel grape, which he cultivates to a standard of perfection which could not easily be excelled.

GRAIN.—*Democrat*, March 2: In all the principal wheat regions of this great valley the universal testimony is that wheat never looked better at this season of the year, if it ever did as well. It would seem now as though nothing but the most disastrous north winds could prevent good crops being harvested this season.

Oregon.

CATTLE.—*Oregonian*, March 1: The demand for cattle is already being felt at Walla Walla, and those having them to sell are feeling better over the prospect of making sales. There are already buyers in the field, and one party expects to gather up in the neighborhood of three thousand head. This band is intended to be driven out to the neighborhood of Laramie, and there wintered, and in another year sent forward by rail to Eastern markets.

FRUIT.—During the past season the fruit drying company at Oregon City worked up 775 bushels of plums, 3,365 bushels of pears, and 16,000 bushels of apples, making a total of 20,140 bushels of fruit. The number of working days was 108, of an average of 17¾ hours per day, with 83⅓ per cent. capacity. When under full capacity and full time, the company can work up 360 bushels of fruit per day. The number of hands employed was seventy, of whom sixty were girls and women.

WALLA WALLA PRODUCE.—*Union:* Notwithstanding the great amount of produce that was shipped out of the Walla Walla country last summer and fall, and notwithstanding the fact that the boats kept running six weeks later in the season, constantly carrying out produce, there is still a large amount on hand. It is estimated that there is now from 100,000 to 150,000 bushels of wheat on hand, to be sent out this spring, besides a large amount of flour. Our valley, it will be seen, is not quite drained yet, and what is on hand will keep a pretty good stream of produce pouring out of the country, until our next harvest is ready for shipment.

A WILLAMETTE FARM.—*Farmer*, Feb. 26: While we have many farms here, in Yamhill county, of which we are proud, the "Glenbrook farm," owned by R. R. Thompson, Esq., of Portland, is perhaps the best improved. A few years ago this farm was considered very little better than the other hills in the vicinity which are growing up in oak grubs and fern. Now it is a beautiful rolling farm in a high state of cultivation, and possesses many advantages not found in the large valleys. Water is brought from the mountain side in a large pipe, and distributed over the farm for various purposes. The buildings, though plain, are ample, and the situation most beautiful. Wheat is raised almost exclusively. With the exception of a few fine cattle, the stock is common. A steam plow does most of the plowing on this farm. It is in operation whenever the land is not too wet—never stops for dry weather. There are five plows in a gang (when the ground is hard and tough they sometimes use but one), drawn by two engines—one at each end of the land that is being plowed—forty rods apart, or less. These engines move themselves like a locomotive. They are very heavy, and when the ground is soft, they sink so deep as to cause trouble. It is sometimes necessary to lay a track for them. As a plow, it is a success, but as an investment it is perhaps not profitable. To place it on this farm cost $16,000. They sometimes plow ten acres in one day, but the average comes far short of that. It takes three men to attend the engines and plows, and one man with a team to haul wood and water. The interest on the cost added to the expenses, would hire as much done in the common way.

New Books.

THE LANGUAGE OF FLOWERS.—This little book, during the past year, has found many admirers, and is now sent out in its second edition, enlarged and improved. The poetical selections are from the best authors. The section devoted to "Floral Conversation," among other good things contains a most fascinating story. There is also a section devoted to sentiments of flowers, and another to floral decorations, in which the subject is treated in reference to special occasions, such as Thanksgiving day, Christmas, Easter, Decoration day, birthday celebrations, weddings, funeral ceremonies, the church, etc.; there is also a chapter on cemetery decorations, and others on preparing skeleton leaves, drying flowers with their natural colors, autumn leaves, sea mosses, etc. It is issued in two different styles to suit purchasers—in neat enameled paper, at 25 cents per copy; and for those wishing a handsome, little gift book or table ornament, it is beautifully bound in fancy cloth, and sold at 50 cents. Copies can be had of booksellers and news dealers, or by sending to Jas. Vick, seedsman, Rochester, N. Y.

SEEDS.—During the last week our table has been fairly showered with those messengers of value and beauty, the illustrated catalogues of the seedsmen and florists. A bundle of these carefully prepared pamphlets comprises really a good foundation for a library for the amateur gardener or florist. The publisher reaps his rewards in the orders for seeds which his catalogue induces, but at the same time he does a great good and answers many a rural need, and deserves praise for his enterprise. We propose to mention briefly the different publications, giving the address of the publisher, so that our readers can send for the pamphlets if they desire.

NO SEEDSMAN has a better name than James J. H. Gregory, of Marblehead, Mass. His annual for 1876 is a large 52-page pamphlet, containing full descriptions and illustrations of the vegetables for which Gregory has gained his wide reputation.

THE Detroit seed company, Detroit, Mich., issues a very handsome catalogue, embellished with colored pictures of flowers and vegetables. They advance several new varieties which are worth attention.

CROSSMAN & BROTHERS, Rochester, N. Y., veterans in the seed business, have made their "GUIDE TO THE FLOWER AND VEGETABLE GARDEN" more useful than ever by incorporating much new descriptive matter. Their "Guide" is very handsomely printed and has new colored plates.

THE "PHŒNIX PLANT CATALOGUE," F. K. Phœnix, Bloomington, Illinois, is particularly prepared for the florist and for green-house reference. There is much attention paid to plant novelties.

LONG BROTHERS, Buffalo, N. Y., are also especially devoted to floriculture. They are the publishers of the "HOME FLORIST," which is one of the most satisfactory manuals printed. Their catalogue is praiseworthy.

VANDERBILT BROTHERS, 23 Fulton street, New York, send us their catalogue of seeds and implements. Almost everything needed in garden work is shown.

A. H. HEWS & Co., North Cambridge, Mass., issue a wholesale price list of earthenware, comprising flower pots, ferneries, vases and everything of that class.

Sales of Farming Lands.

Experience in Sonoma.

Joseph Gibbs came to Petaluma with his family three and a half years ago from Jefferson county, New York. He lived in this city a few months, when he purchased a farm of 140 acres three miles west of town for $35 per acre, which was then considered a large price, the amount of the purchase being $4,900. Within 18 months from the time of buying, he sold 30 acres at $75, amounting to $2,250, and last month he sold the remaining 110 acres at $100, amounting to $11,000, making a total of $13,250 for the property, which in 1873 cost $4,900. The profits from cultivating and renting the place, clear of interest on the capital invested, were nearly $2,000, making a net profit of over $10,000 in three years, on an original investment of less than $5,000.—*Argus.*

Los Angeles Sales.

During the week from February 24th to March 1st the record of transactions in real estate shows a considerable increase in business over the preceding week, of which the total was but $31,841, while the present record amounts to $47,995. Among the most important sales we find one of 440 acres in the Santa Ana rauch for $3,500; three in the Los Coyotes rauch, for $3,220; one in the Desnoyer tract, $600; one in the Pryor tract, $1,000; one in the Mott tract, $1.500; four in Santa Monica, $1,640; one in West Los Angeles, $200; two in East Los Angeles, $350; and one block in Pomona, $2,154. The prices are fully up to the average of preceding weeks, and, though the terms are mostly in cash, in some instances, however, of large sales especially, time has been granted for a considerable portion of the payment.—*Commercial Reporter.*

General News Items.

THE heavy rains extended all over the State.

THE severe floods in Prussia continne, causing great damage.

RICHARD H. DANA, JR., has been nominated Minister to England.

THE President has nominated Judge Taft to be Secretary of War, and he has accepted.

MINISTER SCHENCK of Emma mine notoriety is on his way from London to New York.

THE total amount in the Treasury of the United States was, on the 24th inst., $91,987,028.17.

THE "Home for Aged People," in Brooklyn, was destroyed by fire on Tuesday night, and seventeen of the inmates burned to death.

THE London *Times* says the revelations of political corruption in America are producing distrust in London.

MORE frauds have been discovered in the War Department, showing that the Belknap disgrace did not come any too soon.

IT will take five cars to transport the Cenfral Pacific railroad company's collection for the Centennial exhibition to Philadelphia.

A DISPATCH from Adelaido announces the death of Sir Richard Davies Hanson, chief justice of Sonth Australia.

NOTWITHSTANNING reports to the contrary, General Babcock has not resigned his position in the army, and says he had no intention of so doing.

THE House Committee on Appropriations have agreed to permit the mints to refine gold and silver and pay their expenses out of the charge for refining.

SENATOR TUTTLE proposes to provide for the deficiency in the revenues of the State caused by the pronounced unconstitutionality of the mortgage tax, by levying a tax of five per cent. upon all incomes in excess of $600.

DURING 1875 Wells, Fargo & Co. lost by stage robberies in California the sum of $87,000, and offered rewards for the arrest of the highwaymen amounting to $23,500. There were 36 robberies in all. Already this year there have been six stage robberies in this State.

THE Porte, following the amicable advice given by the Powers, has granted the insurgents complete amnesty. Every preparation has been made by Austria and Hungary to accelerate the return of the refugees to their homes. The Porte has promised refugees that on their return they will be protected against molestation.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington D. C., Mar. 7th, 1876.

FOR WEEK ENDING FEBRUARY 22D, 1876.*

CONDENSER FOR FUMES OF MERCURY.—Charles B. Dahlgren, S. F., Cal.

HARNESS TRIMMINGS.—William Davis, Petaluma, Cal.

CLUTCHES.—Philip Hinkle, S. F., Cal.

REFRIGERATOR.—Edward K. Howes, S. F., Cal.

ANIMAL TRAP.—Albert J. Larson, S. F., Cal.

FISH SCALER.—Sarah Lawton, S. F., Cal.

REAPERS.—David Palmer Russell, Dixon, Cal.

VEHICLE SPRING.—Harry K. Waterhouse, S. F., Cal.

HANDLE ATTACHMENT FOR BRUSHES.—Henry Anderson, Vallejo, Cal.

TRADEMARK.

THROAT OR BRONCHIAL AFFECTIONS.—George F. Roberts, S. F., Cal.

PHYLLOXERA.—Mr. Hill, Tuesday, introduced in the Senate a bill to "save from destruction the vineyards of this State and encourage the destruction of the phylloxera." It provides for the appropriation of $5,000 for each of the years '76 and '77, to be expended by the State vinicultural society. The society is to divide the State into districts, and appoint persons to visit the various districts and apply such measures as will tend to arrest the ravages of the phylloxera and destroy the insect. Prof. Riley, of St. Louis, is invited to visit this coast in this interest, and apply his methods of arresting and remedying the evil, under the direction of the society.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.
DEWEY & Co., Publishers.

UNKNOWN.—We have lately received cash at this office without one explanation, as follows: From Carson, Nev., $4, by express; from Calistoga, $4, by express. The senders will please give full address, date of sending, etc. DEWEY & Co.

WE trust the time will come when every one will use Dobbins' Electric Soap, (sold by Newton Bros. & Co., San Francisco.) Its sale is daily increasing, as is always the case with articles of merit. Try it.

BOUND VOLUMES of the PACIFIC RURAL PRESS, from Volume One, are for sale at this office: price $5 per volume for single volumes; unbound $3. There are two volumes per year.

A BROOM MAKER who understands his business, is wanted to go to Ukiah, for a steady situation. Address this office.

WILL W. B. Peck please send his address to Dewey & Co., 224 Sansome street, S. F., and oblige?

Office of the Marshal for the District of California. San Francisco, March 4th, 1876. To Messrs. A. T. Dewey & Co., of San Francisco and State of California, creditor of J. T. LITTLE, bankrupt:

You are hereby notified that a warrant in bankruptcy has been issued out of the District Court of the United States for the District of California against the estate of J. T. LITTLE, of the city and county of San Francisco, adjudged a bankrupt upon his own petition. That the payment of any debts and the delivery of any property belonging to said bankrupt, to him or for his use, and the transfer of any property by him, is forbidden by law. That a meeting of the creditors of said bankrupt, to wit: Henry Gassett & Co., or Gassett, Bullard & Co., Boston, Mass., $——; Seth Bryan, Boston, $——; Danforth & Son, Boston, $——; Chas. Fitz, Cartine, Maine, $——; —— Bailey, Coloma Cal., $——; W. E. Lewis, unknown, $33; Adams, Blinn & Co., S. F., $147; H. P. McNavin, S. F., $1,770; H. D. Bacon, S. F., $83; F. W. Vale, S. F., $200; J. D. P. Theller, S. F., $——; A. J. Coghill, S. F., $——; A. A. Snyder, S. F., $293; Peter Dean, S. F., $408; Liddle & Kaeding, S. F., $120; Lusk & Co., S. F., $70; Kohler, Chase & Co., S. F., $250; Geo. Lander, S. F., $400; G. O. McMullen, S. F., $165; Miller & Hall, S. F., $60; A. L. Bancroft & Co., S. F., $100; A. T. Dewey & Co., S. F., $63; Richard Ivers, S. F., $100; A. J. Stevenson, S. F., $70; John Malloy, S. F., $112; W. G. Alton, S. F., $2,297.86; H. M. Bennett, S. F., $310.87; Clark A. Sears, S. F., $4,000; L. Schmidt, S. F., $451.40; C. Creason, S. F., $——; G. B. Post, S. F., $1,717. Being the creditors upon the schedule filed with said bankrupt a petition, to prove his debts and choose one or more assignees of said estate, will be held at a court of bankruptcy, to be held on the 17th day of March, A. D., 1876, at 10:30 o'clock, A. M., at room No 10, Court block, 636 Clay street, S. F., before J. M. GIT HELL, Register. EDWIN P. MARSELLUS, U. S. Marshal as Messenger, District of California.

Our interest in the above (a note given for indebtedness about 1868,) is for sale cheap. DEWEY & CO.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 8, 1876.

Trade has been unusually dull and very restricted in amount during the last week because of the "impossible weather." City merchants have passed the time in dodging the floods. The trade, except in food supplies, which must be had despite the storms, has been so small that prices for many articles are little more than nominal.

In some articles of produce, as for instance the standard vegetables, prices have advanced because of the impossibility of getting stock from the country. It remains to be seen whether the incoming consignments, which will arrive with the hoped for fine weather, will not weaken some prices which we quote as ruling today.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	CAL. AVERAGE		CLUB.	
Thursday	9s 10d@10s	—	10s 2d@10s	8d
Friday	9s 10d@10s	—	10s 2d@10s	8d
Saturday	9s 10d@10s	—	10s 2d@10s	8d
Monday	9s 10d@10s	—	10s 2d@10s	8d
Tuesday	9s 10d@10s	—	10s 2d@10s	8d
Wednesday	9s 10d@10s	—	10s 2d@10s	8d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.		Club.
1874	12s 5d@12s 7d		12s 9d@ 13s —
1875	8s 11d@ 9s 3d		9s 3d@ 9s 10d
1876	9s 10d@10s —		10s 2d@10s 8d

During the week the wheat prices have been stationary, the receipts light and the disposition to trade altogether wanting. The situation is unchanged from one week ago.

It will be noticed that the cable rate presents one unbroken monotony during the six days. This fairly represents the general stationary condition in our own markets.

That the English market exactly reflects our own condition, and that the English farmers, like our own, are wholly withheld from field work, is shown in the following review of the Grain trade, telegraphed from the *Mark Lane Express* of March 7th:

"The amount of moisture greatly exceeds the average, and the rain is general throughout the country, retarding the operations of farmers in preparing land and sowing and planting the spring crops. However, the wet weather thus early ought not to alarm or hardly influence the trade. Its continuance is extremely doubtful. During the week the Grain transactions on the spot have been of a languid character, and purchases have only been for the present requirements of business. Forward delivery is more active, and a keener disposition to operate has been apparent, buyers doubtless seeing the possibility of higher prices in the future, now that cargoes of Coast have dwindled to such a small compass and the depletion of the granary stocks is proceeding so steadily."

In ocean freights there is a simular dullness to be noted. The list of diseugaged tonnage is again increasing. There is now reported 18 vessels, aggregating 18,493 tons. The following engagements for Wheat ships have been made during the week: Ship *Thomas Dana*, 1,445 tons, Wheat, to Liverpool, £2 2s; 6dBr ship *Knight of Snodown*, 656 tons, Wheat, to Liverpool, £2 5s; Br bark *George Peak*, 582 tons, Wheat and Merchandise, to Liverpool direct, on private terms. At the present writing, we quote £2 2s 6d@£2 5s as ruling rates for wooden and iron vessels to Great Britain.

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Weekly Receipts of Domestic Produce.

ARTICLES.	WEEK FEB. 16.	WEEK FEB. 23.	WEEK MAR. 1	WEEK MAR. 8.
Flour, qnarter sacks	30,737	28,888	53,954	17,769
Wheat, centals	113,238	87,403	161,897	64,403
Barley, centals	10 476	7,730	9,799	2,165
Beans, sacks	1,047	1,833	1,201	1,831
Corn, centals	670	1,884	1,929	53
Oats, centals	1,327	7,019	894	1,056
Potatoes, sacks	6,510	11,327	11,639	5,508
Onions, sacks	1,116	760	1,431	738
Wool, bales	245	181	102	60
Hops, bales	23	32	210	5
Hay, bales	1,920	1,604	1,277	541

It will be observed that in nearly every commodity the receipts are lightest this week for a month.

Bags—We again advance our quotations for Wheat Bags to meet a firmer condition in the market. We hear of sales of English Wheat Bags to arrive at 11½c, and 50,000 Standard Wheat at 11¾c for June delivery. Thore are under way from Calcutta two and one-half to three million Wheat Sacks from Calcutta. These are nearly if not all sold to arrive at 11¼@11½c. We are informed by a dealer that these Calcutta Bags have been taken mainly by parties in the city on speculation, thinking to gain an advance. Other lots to arrive from England have been similarly taken.

Barley—There has been a little business doing in Barley, mainly at previous rates. We note the following sales: 1,000 sks Bay Feed, $1.25; 800 do do, $1.25, hall silver; 300 do fair Browing, $1.30; 400 do good do, $1.35; 200 sks fair Coast Feed, $1.20 per ctl.

Beans—Beans have mainly sold at last week's prices.

Corn—There have been receipts of 4,000 sks by *Orizaba* and the effect upon prices clearly appears. It has been difficult to realize more than $1.15 for large lots. We note sales: 200 sks large Yellow, $1 15; 175 do small do, $1.37½; 315 sks good large Yellow, $1.15; 125 do do, $1.17½; 400 sks large Yellow, $1.15; 200 sks good Yellow, $1.15; 200 do do, $1.15 per ctl, half silver.

Dairy Produce—The condition of the roads and weather has shut off part of the consignment of Butter, and the stocks are being reduced. There is, however as yet no change in quotations or selling prices, as the lifting of the mud embargo will furnish full supplies. Eggs are quotable a little higher.

Feed—Feed prices are unchanged. We note sales according to quality as follows: 13 tons Poor at $9; 40 do do, $10; 48 do good Oats and Clover, $14; 34 do Wild Oat, $14.50 per ton. Fine Wheat Hay is still quotable at $18 for top price. There are reported nine cargocs afloat, hut the rain closes trade.

Hops—Hops are unchanged in price in this market. From the East, Emmett Wells reports tho New York markct, for the week ending Feb. 25th, as follows:

"A large trade has been doing this week, the demand being pretty evenly divided between brewers and exporters. Sixteen and 17 cents has been freely paid for choice goods, though very few have been on offer, as holders feel confident that more money will be realized for this class within a short time, owing to the scarcity. Seconds and Mediums have received considerable attention from brewers; particularly such as are termed "good brewing Hops," and for this class 12½ and 13 cents has been the ruling price. The total exports for the season from this port now reach 30,000 bales, It is believed that we have yet to spare 10,000 bales, without encroaching upon the requirements for home use down to the next crop; the shipment of 10,000 bales more, however, will be likely to run the price up to 20 cents and over; the demand from England, from this time out, will therefore govern the price here."

Oats—The supply is abundant hut the demand is light. We note sales: 400 sks fair Omaha, $2; 100 sks fair Feed, $2.05 per ctl.

Onions—The stock is large and prices unchauged. There has been a sale of 25 sks Union City at $1.87½ per ctl.

Potatoes—Potatoes are quotable at an advance. We note sales: 200 sks Choice Petaluma at $2; 150 do Choice Tomales, $1.87@2. A large portion of those from Oregon by the steamer have been sold at $1.90; 200 sks good Petaluma at $1 90; 300 do do, $2. Some lots of Oregon have changed hands at $1.85@1.90, and Sacramento River at $1.65 ₱ ctl.

Vegetables—The advance of the season already hrings decline in price. Asparagus is now arriving in fair quality at 25@30c per lb; Green Peas sell at wholesale at 10c per lb; Marrowfat Squashes have advanced to $30 per ton.

Wheat—The condition in Wheat is unchanged. We note sales 200 sks choice Milling at $1.90; 2,000 do good do slightly Weevily, $1.85; 375 sks Woevily, $1.75; 1,500 do fair Shipping, $1.82½; 600 do Sonora, to a miller, $1.85; 1,000 sks fair Milling, $1.87½.

Wool—The local market is unchanged. The Eastern markets are reported by telegraph as tollows;

NEW YORK, March 4th.—Wool and woolen interests are alike depressed, with husiness very dull and prices tending downward; a light stock alone prevented decided concessions. California Spring has sold at 20@26c and Fall at 17½@20c. Sale of 100 hales of Spring is said to have been made to a New England manufacturer at 20c for average quality. Owiug to the high duty on foreigu Clothing and Wools our manufacturers are fast learning to do without them, employing Texan and California as a substitute, and contracts have thus far been made for only 5,000 bales Australian against 20,000 of last year. Carpet Wools are fully 50 to 100 per cent. lower than they were at the beginning of the year, owing to the decline in all kinds of Carpets. The depression of trade has a restraining influence on imports of all goods. Foreign Dry Goods entries here the past month were $2,500,000 less than the same month last year, and over $3,000,000 less than the same month in 1874.

BOSTON, March 4th.—Wool quiet with no material change. Manufacturers are purchasing only in lots as wanted, great caution being shown by both buyers and sellers. Transactions in California embrace more than one half of the whole sales of the week, and there is a disposition to close up stocks of this kiud as fast as possiole to prepare for the new coming spring crop. Sales include 537,000 pounds at 19@33c for Spring, and 15@20c for Fall. The stock of California still amounts to 2,500,000 hales. If the sales keep up to the average since January 1st, it will all he sold before the new Wool arrives in May next.

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., March 8, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	15 00	@	35 00
Tahiti, do	—	@	—
Osl. do	15 00	@	40 00
Limes, Mexican, ₱ M	—	@	15 00
Malaga Lemons, ₱ bx	12 00	@	14 00
Cal. ₱ 100	1 00	@	2 50
do Sicily ₱ b'x	12 00	@	14 00
Bananas, ₱ bnch	2 50	@	4 00
Cocoanuts, ₱ 100	7 00	@	9 00
Pineapples, ₱ dz	7 00	@	8 00
Apples, ₱ box	1 50	@	—
do Choice	2 00	@	2 50
Blackberries	—	@	—
Figs	—	@	—
Huckleberries	—	@	—
Strawber's ₱ ch	—	@	20 00
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ ch	—	@	—
Quinces ₱ bx	—	@	—
Cranberries ₱ bbl	13 00	@	14 00
Peaches, ₱ bx	—	@	—
Pears, ₱ bx	1 50	@	2 00
do Choice	2 25	@	2 50
Crab apples, ₱ bx	—	@	—

DRIED FRUIT.

Apples, ₱ lb	8½	@	10
Pears, ₱ lb	8	@	13
Peaches, ₱ lb	13½	@	15
Apricots, ₱ lb	14	@	15
Plums, ₱ lb	7	@	8
Pitteo, on ₱ lb	16	@	18
Raisins, imported	3 25	@	3 75
Cal. Raisins	8	@	12½
Black Figs, ₱ lb	5	@	10
White, do	8	@	10
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ lb	25	@	30
Beets ₱ ctl	—	@	5
Cabbage, ₱ 100 lb	75	@	1 00
Carrots, per ton	12 50	@	5 00
Cauliflower, doz	50	@	1 00
Celery, doz	50	@	75
Garlic, ₱ lb	—	@	6
Green Peas ₱ lb	—	@	10
Green Corn ₱ doz	—	@	—
Sum'rSquash ₱ box	—	@	—
Marro'fat Sqsh, tn	20 00	@	30 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Parsnips	—	@	—
Shell Beans	2	@	3
Peppers, green, dx	75	@	1 00
Okra	4	@	5
Cucumbers, ₱ box	—	@	—
Tomatoes, hox	—	@	—
Egg Plant, bx	—	@	—
Rhubaro		@	—
Lettuce	—	@	—
Turnips, pr ton	—	@	—
Mushrooms, lb	—	@	20

RETAIL GROCERIES, ETC.

WEDNESDAY M., March 8, 1876.

Butter, Cal. ch'ice	35	@	45
Cheese, lb	18	@	30
Eastern	25	@	30
Lard, Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam. bl	6 25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wh. crsh'd	12½	@	13½
do lt. brown, lb	8	@	9½
Coffee, green, lb	23	@	35
Tea, fine blk, 50, 65, 75		@	1 00
Tea, finest Jap, 55, 75, 90		@	1 00
Candles, Admant'ine		@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powderdz	1 50	@	2 00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Bowen's Cream Tartar lb	—	@	75
Can'd Oysters, dz	2 00	@	3 50
Syrup, S F. Gol'n	75	@	1 00
Dried Apples	10	@	12½
Dr'd Ger. Prunes	12½	@	14
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz. bot	3 00	@	4 50
Whisky, O K, gal	3 50	@	5 00
Fr. Brandy	4 00	@	8 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by CHARLES SUTRO & CO.]

SAN FRANCISCO, March 8, 3 P. M.

LEGAL TENDERS in S. F., 11A. M., 88 to 88¾.

GOLD in N. Y. 114.

GOLD BARS, 900. SILVER BARS, 11 and 15 per cent. discount.

EXCHANGE on N.Y., 60-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, eight to ten per cent. discount.

LONDON — Consols, 93 to 93⅛; Bonds, 102⅝

QUICKSILVER in S. F., by the flask, per lb, 72½@75c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., March 8, 1876.

BEANS.

Bayo, ₱ ctl	3 50	@	3 67½
Butter	1 75	@	2 00
Pea	1 75	@	2 12½
Pink	2 00	@	2 50
Sm'l white	1 70	@	1 85

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	22½	@	25
Point Reyes	25	@	27½
Firkin	25	@	27½
W'st'n Reserve	15	@	20
New York	25	@	27½

CHEESE.

Cheese. Cal., lb	14	@	16
do Old	10	@	15
Eastern	15	@	20

EGGS.

Cal. fresh ₱ doz	—	@	30
Ducks'	—	@	27½
Oregon	30	@	35
Eastern	22	@	25

FEED.

Bran, per ton	—	@	22 50
Corn Meal	29 00	@	30 00
Hay	15 00	@	18 00
Middlings	32 50	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	— 65	@	70

FLOUR.

Extra ₱ bbl	5 75	@	6 12½
Superfine	4 75	@	5 00

FRESH MEAT.

Beef 1st quality lb	7	@	9
Second do	6	@	7
Third do	5½	@	6
Spring Lamb	10	@	12
Mutton	5	@	6
Pork, undressed	6¾	@	7¼
do, dressed	10	@	10¼
Veal	5	@	7
Milk Calves	8	@	8½

GRAIN, ETC.

Barley, feed ctl	1 20	@	1 25
do brewing, l	50	@	—
Chevalier	1 25	@	1 40
Corn, White	1 10	@	1 20
do Yellow	1 10	@	1 20
Oats	2 00	@	2 25
Rye	1 50	@	1 65
Wheat shipping	1 80	@	1 85
do milling	1 85	@	1 92½

HIDES.

Hides, dry	15	@	16½
do wet salted	7	@	7½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	18	@	22½
do Strained	6	@	12½

HOPS.

New crop	10	@	12

NUTS—Jobbing.

Alm'ds in sh'l lb	8	@	10
do, soft sh'l	16	@	20
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	8	@	9
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	1 75	@	2 25
Stockton	1 50	@	1 87½

POTATOES.

Petaluma, ₱ sk	1 90	@	2 00
Salt Lake	—	@	—
Sac River	1 50	@	1 75
Humboldt	1 75	@	2 00
Early Rose	—	@	3 00
Sweet	—	@	3 50

POULTRY & GAME.

Hens, per dz	9 50	@	10 50
Roosters	9 00	@	10 00
Broilers	8 50	@	9 50
Ducks, tame, dz	11 00	@	13 00
do Mallard	3 00	@	4 00
do Canvass	4 00	@	4 50
Geese, per pair	2 50	@	4 00
Wild Gray	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	20	@	22
do Dressed	22	@	24
Quail, per doz	1 00	@	1 75
Snipe, Eng., doz	1 50	@	2 00
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 25
Hare, per doz	2 00	@	3 00

PROVISIONS.

Cal. Bacon, Lt, lb	15	@	15½
do Medium	14½	@	15
do Heavy	—	@	14½
Lard	14	@	17
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'rn Should's	—	@	10
Hams, Cal	14	@	14½
do Armour	16	@	16½
do Worster's	17	@	17½
do Dupee's	17	@	17½

SEEDS.

Alfalfa, Ohile lb	8½	@	11½
do California	11	@	12
Canary	20	@	22½
Clover Red	—	@	25
do White	50	@	55
Dotton	6	@	10
Flaxseed	—	@	3¾
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do. Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	15	@	—
Timothy	11	@	13

TALLOW.

Crude, ₱ lb	6½	@	7¼
Refined	8¾	@	9

WOOL, ETC.

FALL—			
Seedy, ₱ lb	11	@	12½
Choice free	12	@	18
Burry	9	@	11
Oregon	—	@	—

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., March 8, 1876.

POULTRY, GAME.

Chickens	75	@	1 00
Hens	75	@	1 00
Eggs, Hens	55	@	60
do Ducks'	—	@	60
do Farallones	—	@	—
Turkeys, ₱ lb	20	@	25
Ducks, each	1 00	@	1 25
Geese, wild, pair	50	@	1 00
Tame, ₱ pair	3 00	@	4 00
Snipe, ₱ doz	1 25	@	1 50
do English	—	@	3 00
Quail, per dozen	75	@	2 00
Prairie Ch'k's, pr	—	@	—
Hares, each	25	@	50
Rabbite, each	15	@	20
Squirrels do	—	@	15
Hams, Cal. ₱ lb	16	@	20

FISH, MEATS, ETC.

Flounder, ₱ lb	15	@	30
Salmon, ₱ lb	15	@	25
Smoked	—	@	8
Cod Fish, lb	12	@	15
Lake Big. Trout	—	@	30
Beef, tend, ₱ lb	15	@	18
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	—	@	15
Porter House St'k	—	@	20
Sirloin do	12	@	15
Round do	8	@	10
Pork, rib, etc., lb	12	@	12½
Chops, do, ₱ lb	15	@	—
Veal, ₱ lb	10	@	15
Outlet, do	15	@	25
Mutton-chops, lb	10	@	12
Leg Mutton, ₱ lb	10	@	15
Lamb, ₱ lb	20	@	22½
Antelope	15	@	20
Tongues, beel	75	@	1 00
do, do, smoked	75	@	1 00
Tongues, pig, lb	12½	@	—
Bacon, Cal., ₱ lb	16	@	20

FRUITS, VEGETABLES.

Apples, pr lb	5	@	8
Pears, per lb	5	@	12½
Apricots, lb	—	@	—
Peaches, lb	—	@	25
Plums	—	@	—
Pine Apples, each	50	@	1 00
Lady Apples	—	@	25
Grapes	—	@	25
Bananas, ₱ doz	75	@	—
Muskmelons	—	@	—
Watermelons	—	@	—
Blackberries	—	@	—
Cal. Walnuts, lb	—	@	25
Oranber'es, Org., do Eastern qt	—	@	20
Huckleberries	—	@	—
Strawberries, lb	—	@	—
Raspberries, lb	—	@	—
Gooseberries	—	@	—
Currants	—	@	—
Cherries, ₱ lb	—	@	—
Nectarines	—	@	—
Pomegranates	—	@	—
Oranges, ₱ doz	50	@	75
Lemons	75	@	—
Limes, per doz	20	@	25
Figs, dried Cal.	12½	@	15
Figs, Smyrna, lb	25	@	35
Asparagus, lb	50	@	62½
Artichokes, doz	75	@	1 25
do Jorusalem	—	@	8
Beets, ₱ doz	20	@	25
Potatoes, ₱ lb	2	@	3
Potatoes, sweet	—	@	6
Brocooli, each	10	@	15
Cauliflower	10	@	15
Green Peas ₱ lb	—	@	50
Cabbage, per hd	10	@	12½
Oyster Plant, bn	—	@	12½
Carrots, ₱ doz	—	@	25
Celery, ₱ dz	75	@	1 00
Cress, ₱ doz bun	20	@	25
Onions	3	@	4
Turnips, ₱ doz bunches	—	@	25
Brussels Sprouts	6	@	8
Eschalots	—	@	25
Dried Herbs, doz	30	@	50
Garlic ₱ lb	12½	@	—
Green Corn, doz	—	@	—
Lettuce, ₱ doz	25	@	—
Mint, ₱ bunch	—	@	12½
Mushrooms, ₱ lb	—	@	25
Horse radish, ₱ lb	15	@	25
Okra, dried, ₱ lb	—	@	—
Pumpkins, ₱ lb	5	@	6
Parsnips, doz	—	@	25
Parsley	12½	@	—
Pickles, frsh, ₱ lb	—	@	—
Radishes, doz	20	@	25
Sage	—	@	25
Marrowfat, do	1½	@	—
Huhbard, do	—	@	—
Mangoos, ₱ doz	—	@	—
Spinage ₱ bskt	—	@	12½
Rhubarb	10	@	12
Green Chilies	—	@	25

LEATHER.

[WHOLESALE.]

WEDNESDAY M., March 8, 1876.

City Tanned Leather, ₱ lb			22@29
Santa Cruz Leather, ₱ lb			22@28
Oonntry Leather, ₱ lb			22@28
Stockton Leather, ₱ lb			25@29
Jodot, 8 Kil., per doz			6 50 00
Jodot, 11 to 13 Kil., per doz			85 00@ 90 00
Jodot 14 to 19 Kil., per doz			82 00@ 94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz			57 00@ 74 00
Cornellian, 12 to 16 Ko			57 00@ 67 00
Cornellian Females, 12 to 13			63 00@ 67 00
Cornellian Females, 14 to 16 Kil			71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil			58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil			66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil			72 00@ 74 00
Simon, 18 Kil., ₱ doz			61 00@ 63 00
Simon, 20 Kil. ₱ doz			65 00@ 67 00
Simon, 24 Kil. ₱ doz			72 00@ 74 00
Robert Call, 7 and 9 Kil			35 00@ 40 00
Frenob Kips, ₱ lb			1 00@ 1 15
Calilornia Kip, ₱ doz			40 00@ 60 00
Frenob Sheep, all colors, ₱ doz			8 00@ 15 00
Eastern Calf for Backs, ₱ lb			1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz			9 00@ 13 00
Sheep Roans for Linings, ₱ doz			5 50@ 10 50
Calilornia Russett Sheep Linings			1 75@ 4 50
Best Jodot Call Boot Legs, ₱ pair			5 00@ 5 25
Good French Calf Boot Legs, ₱ pair			4 00@ 4 75
French Calf Boot Legs, ₱ pair			4 00@ —
Harness Leather, ₱ lb			24@ 32½
Fair Bridle Leather, ₱ doz			48 00@ 72 —
Skirting Leather, ₱ lb			33@ 37½
Welt Leather, ₱ doz			30 00@ 50 00
Buff Leather, ₱ foot			17@ ⅛
Wax Side Leather, ₱ foot			17@

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., March 8, 1876.

BAGS.

Eng. Stand Wht	11½	@	12
Neville & Co's Hand Sewed	11½	@	12
24x36	12	@	12½
24x40	—	@	—
Machine do 24x40	12½	@	13
" " 23x40	12	@	12½
" " 22x40	11	@	11¼
" " 22x36	10	@	11
Flour Sacks ½s	9½	@	11
" " ¼s	6¼	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¼	@	14½
do 45-in	9¼	@	9½
do 40-in	8	@	8½
Wool Sacks, 3½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	15
single seam do	—	@	—
Bean Bags	7¼	@	8
Bariey Bags 24x36	11¾	@	12
do 23x40	11½	@	12
do 24x40	12	@	12½
Oat Bags, 24x40	12	@	12½
do 28x36	—	@	13½

CANNED GOODS.

Asst'd Pie Fruits in 2½ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	—	@	9 00
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	—	@	18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	13 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Gnatemala	—	@	22½
Java	—	@	31
Manilla	—	@	21½
Ground in cs	25	@	—
Uhicory	27	@	—

FISH.

Sac. Dry Cod, new	4	@	4½
cases	6	@	7
do boneless	8½	@	10
Eastern Cod	7½	@	8
Salmon in bbls	8 50	@	9 00
do ½ bbls	5 00	@	5 00
do 2lb cans	2 25	@	2 30
do 1lb cans	1 25	@	1 30
do Col. R. ½lb	5 00	@	5 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½bls	9 00	@	11 00
" Extra	—	@	12 00
" in kits	1 90	@	2 00
" Ex mess	3 90	@	4 50
" Ex mess, ½bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, Sta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Laod Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Putu	—	@	9

NAILS.

Assorted size keg	3 75	@	4 00

OILS.

Pacific Glue Co			
Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	1 25
Baker's A A	—	@	1 40
Cocoannt	55	@	60
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	80	@	—
do boiled	—	@	75
China nut in cs	70	@	75
Sperm, crude	—	@	1 40
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	—
Lard	—	@	—
Oleophine	—	@	28

Bees.

Salicylic Acid as a Cure for Foul Brood.

The following paper was read before the Beekeepers' Society of Los Angeles county, by John P. Bruck:

During the year before last, the researches of quite a number of German scientific men, but more particularly those of Prof. Shoenfeld, had demonstrated that the foul brood among bees was caused either by a fungus allied to those causing fermentation, or by a variety of those infinitesimal creatures known as bacteria, vibriones, etc., the primordial form of life, the smallest living creatures yet discovered.

A short time previous another German professor, Kolbe, had discovered an acid which, though destructive to these minute creatures, was altogether harmless to animal tissue of higher organizations.

From a theoretical standpoint, therefore, it was highly probable that this acid, now called salicylic acid, would prove efficacious against foul brood; and, in the early part of last year, various recommendations of this kind appeared in the German bee journals.

We do not hear, however, of any practical trial, until Mr. Siebeneck published his experiment in the second May number of the *Bienenzeitung*. Mr. Siebeneck's communication is substantially as follows:

"I took a small brush or pencil and lightly, though thoroughly, moistened every comb containing foul brood, wherever there were any affected or sunken cells. I took out all empty or partially empty combs and reduced the size of the hive as much as possible, and moistened the inner walls as well as the entrance of the hive. Three or four days after, the hive is again looked to, and all newly sunken cells treated as before. Where there are greater quantities of foul broody cells, they had perhaps better be cut out and the cut edges moistened with the acid. I have made various experiments during the past year, and not only have I effected a cure, but the hives have become populous and have wintered well."

In the number of the *Bienenzeitung* for the 15th of July, Mr. Mayer speaks as follows:

"I have just received the number for May. I look through the table of contents and find 'Foul Brood Cure.' Hastily looking through the article I search for the words 'salicylic acid,' and sure enough there they are, as I expected, for it has done me the same service it has rendered Mr. Siebeneck. It has been demonstrated through the careful scientific researches of Rev. Mr. Shoenfeld, that microscopic fungoids are the cause of foul brood; now, as it has been sufficiently proved that salicylic acid, like carbolic acid, would destroy all animalculæ, it ought likewise to prove efficacious against the micrococcus, or foul brood fungus, especially as salicylic acid is harmless to animal tissue, having furthermore no smell, and, when diluted, no taste. I accordingly procured some in a drug store and operated as described.

"The disease had assumed such threatening proportions with me that at least 80 per cent. of sealed cells were foul broody. I proceeded substantially as Mr. Siebeneck did, taking a feather and sprinkling cells and comb with the acid dissolved in warm water, also washing the interior of the hive with a rag moistened with the acid.

"Besides, I added the diluted acid to their food in proportionally strong doses. The bees eat it readily, and to-day I regard foul brood as eradicated from my apiary. I occasionally find in the worst hives a foul brood cell, which, however, most likely has remained since last spring.

"In the spring of '74 I melted down a large number of the very nicest empty combs, so as to prevent the disease from spreading. I now use all frames, those from affected hives not excepted, without any fear, after having them disinfected with the acid."

Salicylic acid is now manufactured in the United States, and can be had from the manufacturers at about 35 cents an ounce by the quantity. I have lately noticed an article on benzoic acid as regards it use as a substitute for salicylic for the preservation of meats, etc.; and the result of a number of experiments seemed to prove it far superior to the salicylic. Those that cannot obtain the salicylic might try the benzoic. Besides, it is more readily dissolved in water. JNO. P. BRUCK.

Arroyo Seco Bee Ranch, Los Angeles Co., Cal., Feb. 1st, 1876.

THE MAN WHO NEVER TASTED FLESH.—There is said to be now living, one-half mile south of Holmesdorf, Penn., an old farmer by the name of Abraham Blatt, who is about 60 years of age, is healthy, robust, and as strong as a horse, who has never in his lifetime tasted the least bit of meat of any kind. He says he never tasted beef, pork, mutton or veal, eats no kind of poultry, no kind of fish, no kind of game, in fact nothing pertaining to meat. He has such an abhorrance of meat that when they kill a cow or hog on his premises, he generally leaves home and goes about other business. He is the father of a large family, all healthy children. Among them is also one boy, who, like his father, eats no meat of any kind. In reply to the questions put to the father how he could work so hard without eating any meat, he says he believes he is much healthier than if he ate meat. He uses very little butter.

Nurserymen.

1865. 1875.

Hannay Bros.' Nurseries.

We the undersigned have been engaged in the Nursery business for the last ten years in San Jose, and our chief aim has been to grow and produce only the very best varieties of Fruit Trees, and those of a healthy growth, and such trees as will give satisfaction to our patrons. In order that purchasers may know our varieties, and also our prices at wholesale or small lots, we give the following:

ONE YR OLD.	Pr 100.	Pr 1000.	TWO YRS OLD.	Pr 100.	Pr 1000
Apple trees	$12	$100	Apple trees	$25	$150
Pear "	20	180	Pear "	28	250
Prune "	22	200	Prune "	30	—
Plum "	20	180	Plum "	28	250
Cherry "	22	180	Cherry "	30	280
Peach "	22	180	Apricot "	25	200
Nectarine "	25	—	Fig "	20	—
Quince "	30	—	Fertile de Palliers	5	—
Almond "	20	—			
Currant "	5	—			

We also offer a large assortment of the leading kinds of Ornamental and Evergreen Trees. Purchasers who wish choice grown trees are invited to visit our Nurseries and examine our stock, as we know their character and healthy growth will please them. Persons unknown to us, that order trees, should send the cash or good reference, in order to secure their trees.

Our Nursery is situated upon Julian street, one mile east of the Court House.

HANNAY BROS.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,

P. O. Box, 722. 516 Battery Street.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

BLUE GUM TREES.

400,000 For Sale. Price from $10 to $45 per 1,000. Also a fine stock of Ornamental Trees, Etc.

Main Depot, 118 East 12th street, Oakland. Branch Depot, Market street, opposite new City Hall, San Francisco. Open from 7 A. M. to 7 P. M.

BAILEY & CO.,

Box 80, Oakland, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

100,000 BLUE GUM TREES

FOR SALE.

Grown in open ground and of most excellent quality—FAR SUPERIOR TO ANY BOX GROWN PLANTS—offered at Greatly Reduced Rates.

500,000 SEEDLINGS AND BOX GROWN TREES

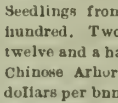
In fine order, at ten and fifteen dollars per thousand. All trees delivered on wharf in San Francisco at nursery rates. We wish it distinctly understood our trees for forest planting are RESPONSIBLE NURSERY STOCK. Address

W. A. T. STRATTON,

PACIFIC FOREST TREE NURSERIES,

Petaluma, Cal.

BAY NURSERY,



OAKLAND, CAL.

Lock Box, - - - 331.

JAMES HUTCHISON, Proprietor.

[Established 1852.]

Has for sale an Immense Stock of EVERGREEN TREES, SHRUBS and FLOWERING PLANTS at GREATLY REDUCED PRICES. Monterey Cypress Seedlings from two and a half to five dollars per hundred. Two and three year plants two to six feet, twelve and a half to twenty-two dollars per hundred. Chinese Arbor Vitæ, twelve to sixteen inches, eight dollars per hundred.

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street, S. F.

Formerly at 315 Washington street.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

Fruit Trees

In great variety and quantity, including Apricots, Apples, Cherries, Figs, Peaches, Pears, Plums, etc., all warranted to be true to labels; for sale at a great sacrifice on account of

REMOVAL.

Peaches a specialty, and is the best and most *complete* assortment on the Pacific Coast. Also Almond, Walnut, Maple, Poplar and Mulberry trees for shade and fruit

TERMS CASH. Send orders by mail or express, or apply at the Vacaville Nursery, 3 miles west of town, on the Suisun road.

D. E. HOUGH,

Vacaville, Solano Co., Cal.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Lulsante.

Chestnut: Marron de Lyon and Combale.

Walnut: Præparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

TREES FOR FRUIT AND ORNAMENT.

500 Acres of Trees at Wholesale & Retai

Pear, Apples, Cherries Quinces.

Peaches, Plums and other Small Fruits.

New and Rare Ornamental Trees and Shrubs.

Evergreens, large quantity, large variety, cheap.

Cut-leaved Birch, Purple Beech, Weeping Trees.

Clematis Jackmanni—Hardy and perpetual; blooms profusely until frozen up.

Perpetual White Clematis, 15 sorts. We have over 70 varieties of Clematis, in many shades of color, from dark rich purple to pure white—strong plants, safely sent by mail.

Roses. Moss, Tea, Climbing and Perpetual.

Small Packages sent safely by mail and express.

Catalogues free. Address

T. C. MAXWELL & BROS.,

Geneva, N. Y.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the Introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

Seedsmen.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,

607 Sansome St., San Francisco.

ALL ABOUT GARDENING

For Home Use and for Market, in ROOT'S GARDEN MANUAL—practical, pointed and thorough—containing one-half as much matter as $1.50 books on the subject. Gardeners throughout the country commend its practical labor-saving methods as invaluable to them. Sent for 10 cents, which will be allowed on the first order for seeds. J. B. ROOT, Seed Grower, Rockford, Ill.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

FOR SALE.

A fine young draft Stallion, price $1,000 cash, or on time with approved security. For particulars and pedigree, inquire of J. M. DUDLEY,

Dixon, Solano County, Cal.

W. R. STRONG, Seedsman, Established 1857. 1876. ROBT. WILLIAMSON, Nurseryman, Established 1865.

SEEDS. W. R. STRONG & CO. TREES.

S. F. Office, 418 & 420 Clay St., Sacramento Office, 8 & 10 J St., Nursery Grounds, Sacramento Co.

GREAT REDUCTION IN SEEDS.

Seeds heretofore retailed by all dealers at Ten cents per paper, we will now furnish at Five cents. They will be forwarded by mail, postpaid, to any part of the United States without extra charge (except on heavy Seeds, such as Peas, Beans and Corn; on which postage will be added). This will cover Vegetable and Flower Seeds. Also, a great reduction on all higher-priced papers. Money should always accompany orders, and may be forwarded in registered letters, or by postal orders at our risk. Our assortment is probably the finest on the Coast.

Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, W. R. STRONG & CO., House in San Francisco, STRONG & WILLIAMSON.

ALFALFA a Specialty, and furnished to the trade, or in small quantities, at lowest possible rates.

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

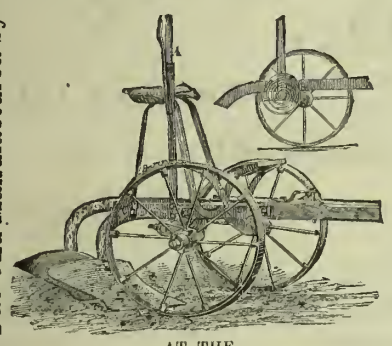
Agricultural Articles.

McCormick's Mowers and Reapers.

Everybody knows that McCormick's Reapers and Mowers have a world-wide reputation. McCormick's inventions on these machines have been the most important ever patented in this or any other country. Selling thousands of them in the older States, in the face of all kinds of opposition, the inventors and makers (who have an immense factory,) have not hitherto pushed the machines on this Western shore, as they now intend to. Farmers can depend upon every machine and all its parts when sent out from the factory of this old established firm.

OAKLAND GANG PLOW

Pat. and Manufactured by HENRY N. DALTON.



—AT THE—

PACHECO

Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with LIGHTER DRAFT, to do MORE PERFECT WORK, and to be more EASILY and PERFECTLY MANAGED than any other yet offered the farmer.

The essential feature of the device, which is illustrated in the annexed engraving, is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of nine inches into the ground, or be raised seven inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,

Pacheco Agricultural Works, Pacheco, Cal.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

9 12 15 20 HORSE POWER. ALL SIZES

Hoadley's PORTABLE Engines

Sole Agents TREADWELL & Co

From year to year they have been improved under the personal supervision of Mr. Hoadley. The last great improvement is the REGULATING CUT-OFF, with balanced valve, thus giving it all the economy and increased power of the most thorough-built Corliss Stationary Engine. By this addition, a 15-horse power Hoadley Portable can be run at over 40-horse power, if required. ☞As a Threshing Engine, the Hoadley is the leading engine of the country. It has no equal. For prices, etc., send to

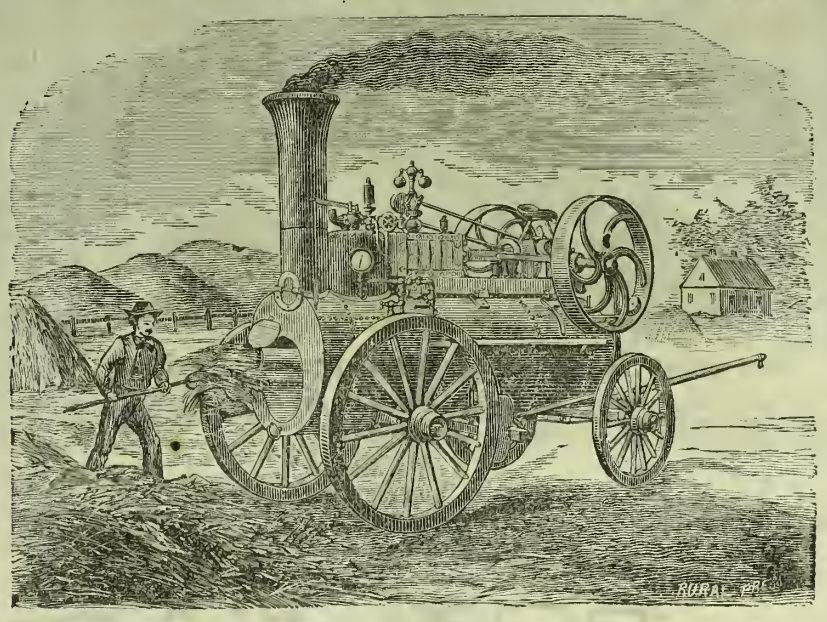
TREADWELL & CO., S. F.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the state, and gave the very best satisfacton, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific Coast, and all orders should be addressed to them.

SAN FRANCISCO, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street, San Francisco, and corner Second and J Streets, Sacramento.

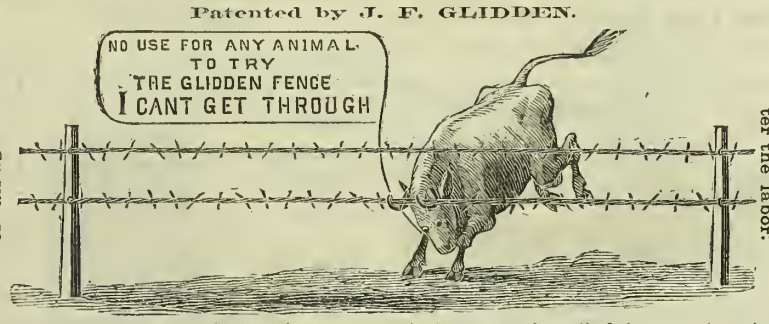
P3feb76tf* MARCUS C. HAWLEY & CO.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord | J. REGENSBURGER.....S. F.
J. VOLLMAR.....S. F. | A. W. THOMPSON.Petaluma
J. D. BLANCHAR.....Napa | F. A. KIMBALL....San Diego
C. MITCHELL GRANT.....| I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 40 California Street, S. F

LIBERAL ADVANCES ON CONSIGNMENTS.

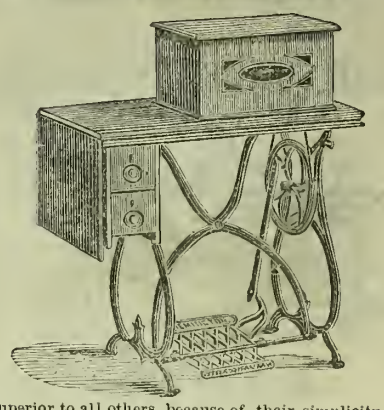
TRADE MARK.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Novada.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,

19 New Montgomery Street, S. F.

☞Grand Hotel Building.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoricty. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

H. K. CUMMINGS. 1858. H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the prodncer. 4v23-1y

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

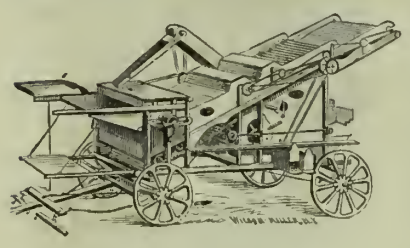
Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Treadwell's Patent

END-SHAKE THRESHER.

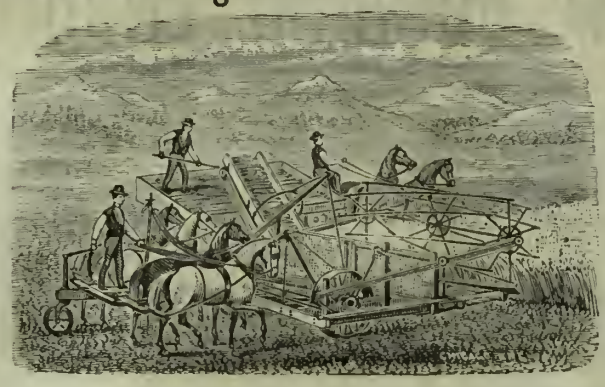


MADE BY RUSSELL.

We have 24, 30, 33, 36, and 40 inch machines, made this year, all with Laufenburg's patents, and the celebrated End-Shake Shoes—the greatest improvement yet made in Separators. Send for circulars and prices.

Treadwell's Single-Gear California Header.

High Iron Wheels with Adjustable Spokes.



Patent Adjustable Reel and Frame Brace.

No other Header has these Improvements.

☞Any farmer buying $300 of worth machines or implements of us, will be paid his fare to San Francisco and back, if not over 200 miles. He can thus come and see for himself, without any expense. Send for our prices before ordering any machines.

HOADLEY'S

Threshing Engines.

REDUCED PRICES.

9 Horse Power, new style, complete		$1,200
12 " " " " "		1,450
15 " " " " "		1,650
15 " " Patent Straw Burning Engine		1,700

TREADWELL & CO., - - - Old Stand, Market, head of Front Street. - - - San Francisco.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

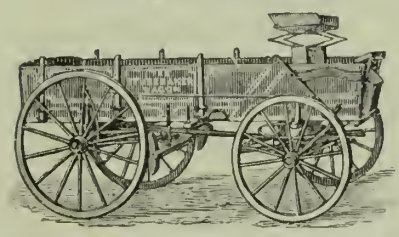
ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL.

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

Send for Price-List.

E. E. AMES, Gen. Agent,
Sacramento, Cal.

ÆTNA MOWER AND REAPER

Price of Mower, $100.

The Latest and Best. Weight, 650 lbs; cuts four feet, four and one-half inches. It has ALL THE IMPROVEMENTS of every first-class machine, besides a DOUBLE SPEED (which no other has), giving a fast or slow speed to the knife or sickle—an important advantage. Send for Illustrated Pamphlet, and don't fail to see the "ÆTNA," before buying. For sale only by

TREADWELL & CO., San Francisco.

☞We guarantee to keep "extras" on hand from year to year for this machine.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range,

53 and 55 J Street, Sacramento.

Our "Handy Map" Premium.

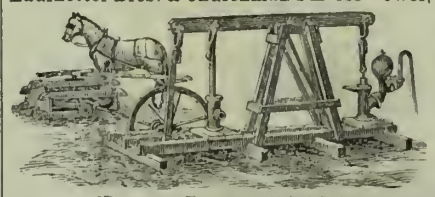
This "Map of California and Principal Part of Nevada" is printed on tinted paper, 15x18 inches. It gives the county boundaries, railroads and principal cities and towns in both States; the principal mountains, streams and the U. S. land districts and township lines in California. Without claiming completeness, it is the latest and one of the most correct issued. Price 50 cents. FURNISHED FREE (until further notice) to every subscriber to this paper who pays for one year in advance.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

GEO. P. ROWELL & CO'S ADVERTISING AGENTS 41 PARK ROW, N.Y.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

FARMERS write for your paper.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

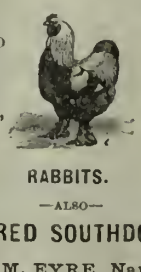
B. F. WELLINGTON,

(Successor to E. E. Meere).

425 Washington St., San Francisco. 22v7-1y

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks. PIGEONS. RABBITS. FERRETS.



BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

Dewey & Co. {224 SANSOME ST} Patent Agt's.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

*,*My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain Instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, MARCH 18, 1876. [Number 12.

The Oppenheim Single and Double Buggy.

The Oppenheim bnggy, which we illustrate on this page, is a California invention just patented, and a very ingenious one at that. Its peculiarity consists in the arrangement of the seats, by which it can be instantly changed from a single seated bnggy, as shown in Fig. 1, to a two seated rockaway, as shown in Fig. 3. The ingenious mechanism by which this change is accomplished is exceedingly simple in detail and adds no material weight to the vehicle. There are, moreover, no unsightly bars or rods to snpport the movable seats, but everything is covered in, so that the general arrangement is neat, as such things should be. This is a great improvement over the so-called "jump seat" buggies, which have heretofore had such a reputation for comfort and beauty.

The Single Buggy.

When arranged with but one seat, the vehicle is of no greater dimensions than an ordinary buggy, viz: 20 inches from dashboard to seat, 14 inches across the seat, 14 inches to rear end, making it four feet long in all, with no bars or props sticking ont behind. It then has the appearance shown in Fig. 1. In this form it is adapted to all the nsual services required of an ordinary single seated buggy, but possessing the additional advantage of a capacity of enlargement at a moment's notice, in case more than two persons are to ride.

Operation in Making the Change.

To donble the seats, the hind seat, *B*, (Fig. 2,) is lifted by the handle, *h*, from the front seat, *C*, into which it fits snugly (in the case of the single seated bnggy), and pulled back as far as the stop joint, *f*, of the regulating bar, *c*, will permit. It then assnmes the position shown in Fig. 2. Then the whole body is pnshed forward by the lower bandle, *l*, the body sliding on the bars, *d*, *d*, which pass through the rings, *e*, *e*, which are fastened on the supporting frame, *g*. By this means the front seat and dash are advanced 10 inches, while the hind seat, *B*, drops on to and is snpported by the side panel, *A*. The buggy is then

A Two Seated Rockaway,

As shown in Fig. 3. The rockaway has all the proportions of a vehicle bnilt expressly for two seats. The body is apparently lengthened 15 inches, by throwing the hind seat entirely behind the sill, where it is held firmly in position by the steel bars, *a a*, as well as by the bars c c, which latter also regnlate the action when opening or folding the seats, and prevent the body from sliding backward or forward when in position. The length of the body is now as follows: from dash-board to front seat, 20 inches; front seat, 14 inches; space between the seats, 14 inches; width of hind seat, 15 inches; total, 63 inches. Both seats retain their full width, an important point, as the steel bars, *a a*, drop into the grooves *b b*, when the seats are folded. There is ample room for the knees and feet between the seats, and above all, it is as easy to get in and out of the behind as in front, a facility which no vehicle of this kind has offered until now.

Although this device may seem complicated from the description, at first glance, it is by no means so, being so simple in construction as not to he liable to get out of order, and if it should, any carriage maker or even blacksmith could repair it. By the slide motion of the body the weight of the seats is equalized, and either spring is relieved of too great a pressure, as wonld be the case if the seat merely dropped back without the body sliding on the frame. When arranged as a single buggy the seat comes back in its proper place, and when double the front seat is forward, so as to equalize the weight on the springs. The top is so adjusted as to be nsed as a single buggy top or extension top at pleasnre, or the buggy can be bnilt with the so-called stationary top. Livery stable keepers will easily see the advantages of a vehicle of this sort, as will those who do not desire to keep two buggies, but sometimes need a single, sometimes a double buggy. The Oppenheim buggy as made at present weighs about 400 pounds, without the top, and the price does not much exceed that of an ordinary single seated vehicle. Those desiring further particulars can apply to the agent, E. Steele, 13 Merchants' Exchange, in this city, or M. T. Holmes, the manufacturer, on Sutter street, near Stockton.

FIG. 1. OPPENHEIM BUGGY, ARRANGED FOR ONE SEAT.

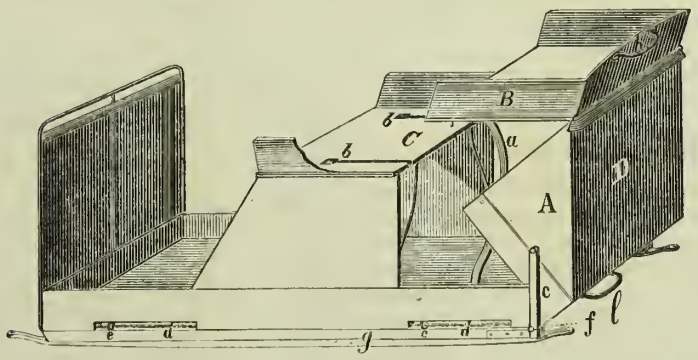


FIG. 2. DETAILS OF CONSTRUCTION OF OPPENHEIM BUGGY.

FIG. 3. OPPENHEIM DOUBLE BUGGY AS A ROCKAWAY.

The snow blockade still interferes with travel on the overland road.

Convict Labor.—It has been snggested to ns that the troublesome school book question could be solved by the State, doing its own printing at San Quentin.

The treaties between the Argentine republic and Brazil have been ratified and all difficulties now terminated.

The Debris Question.

The mining debris qnestion has received the consideration of two of the Assembly committees and two reports have been made. The Committee on Agriculture sets forth anew the farmers' grievance. It recounts the loss by covering fertile fields with the thick deposit from hydraulic washings; the danger of a thousand times greater damage which must result from the improved systems of hydraulic mining if no remedy is devised to counteract its effects. In the main the report of the Committee on Agriculture recites the alarming facts which we have laid before our readers in reports of farmers' meetings in the threatened districts and in the bill which was presented in the Assembly asking for a commission to examine the evil and report a way of obviating it. The report of the committee recommends the establishment of snch a commission "to investigate and report upon the feasibility of utilizing the debris," and to co-operate with the engineers whom the United States Government is asked to appoint to examine the threatened danger to navigable streams from the same cause which lays waste the farmers' fields.

The report from the Committee on Mining acknowledges that damage has been done in some cases, but claims that the service of the mining population in affording a market for the agricultural productions of the foothill counties and the effect of mining enterprises in storing up water in winter to feed the streams in summer, are matters for the public good. It alludes to the fertilizing quality of the detritus and instances the effect produced by the earthy matters which have been deposited by the Nile. The report makes no allowance for the fact that the development of mining in the new methods will send whole mountains down in thick layers upon the bottom lands, and cannot be compared with the gradual deposition of the Nile. The report of the Mining Committee is perhaps as good a showing as could be made in the interest of the miners, but their argnments will fall like dry leaves upon those whose fields have been destroyed or whose city property is endangered. The miners agree with the agriculturists that the whole matter should receive a strict and complete investigation by scientific engineers, and petition the United States Government for a commission to execute this work. Thus the matter stands, and thus probably it will remain, a contested matter among rival interests, until some thorough searching shall discover the true adjnstment of the difficulty.

The Eucalyptus as an Insectifuge.—We extract the following passages, says the *Illustration Horticole*, from a letter received from Mr. C. Baltet, of Troyes, and recommend our readers to try the experiment for themselves, when the season arrives: "Lately my brother-in-law, being very much disturbed in his sleep by mosquitoes, took it into his head to place a young plant of eucalyptus in his bed-room over night. From that moment the insects disappeared and he slept in comfort. I have been following his example, with the same result. Should this really prove generally efficacious, our Southern provinces will be freed of one scourge. People will nse young plants of encalyptus instead of mosquito cnrtains."

The Sportsman's Club of California.—A club under the above name has been recently organized in this city, having for its object the protection of game and fish throughout the State. Its organizers include some of the gentlemen of our city who take an interest in the preservation of game and fish, and who will devote their energies to the suppression of pot-hunting and the wanton destruction of birds and fish ont of season. This society will keep a close watch on the infringers of the recently enacted laws, and prosecute vigorously those who set all laws at defiance, as heretofore.

Eucalyptus Wood.—We are assured by those who have tried it, that the blue gum trees when green split very readily, and will make good fencing stuff. It will also burn quite green. Cheap as these trees are in the market now, thousands of farms should be environed by them yet this spring.

CORRESPONDENCE.

Stable Manures.

EDITORS PRESS:—A short time ago I received a prospectus of the California fertilizing company, and immediately congratulated myself on the prospect of being able to buy artificial manure to some advantage. Now, as a farmer, I would say all honor to men who undertake to manufacture artificial fertilizers, of which the California farmer stands so much in need; but when I read on page fourth of the pamphlet the following: "Under the condition of our climate stable manures do not renew the fertility of the soil as is the case elsewhere. From the same causes a rotation of crops do not produce the favorable results desired," I am forced to the conclusion that the man who wrote the above named pamphlet is either ignorant of many of the details of practical farming, or must have thought that he was writing to a class of men who know very little about their own business.

Like our friend, Ed. Berwick, I make and "use all the manure I can get hold of." Feeding, as I do, about 80 head of cattle of various ages, for eight months in the year, and something like one-third that number during the remaining four months, the rich stable manure made and used on the farm in the course of the year amounts to a good deal, and it gives me great pleasure to add that I am daily seeing the beneficial results arising from its application to the land. For the last two seasons it has been supplemented by the addition of two or three tons of Peruvian guano each year, (an article which I am sorry to say I could not buy in this market till about two years ago,) in order to produce such "rotation of crops" as I might think would give the most beneficial returns to my own pocket, as well as to get the greatest benefit from the manure applied to the land.

It is, or ought to be, generally well known amongst the farmers, that some of the most indispensable ingredients of plant life can be restored to the land through the application of farm yard manures, at a cheaper rate than from any other source yet discovered, I believe.

How Manure is "Destroyed."

Again, on the fifth page, I read: "The domestic farm manure is comparatively valueless; the dry weather of summer destroys its most valuable qualities, while the continual cold moisture of the rainy season prevents the fermentation or decomposition so necessary to assimilate its properties with plant life." Now, we all know that the dry weather of summer *does not destroy any* of the valuable properties of farm yard manure; its valuable properties can only be destroyed or washed out by water—the escape of gases by fermentation excepted—and it can only be assimilated to plant life by the aid of water and air. The farmer that puts manure into land where there is a "continued cold moisture," does not understand his business. To apply manure to land that is full of water, so full that no air can penetrate it, is sheer folly, and to apply it as a top dressing to such land in the fore part of the rainy season is no better, but, if anything, worse, because if the descending rain cannot enter the soil, on account of the land being already too full of water, it must of necessity run off and carry away with it the most soluble constituents of the manure.

By the proper cultivation of the soil, manure can be made perfectly available to plant life during our summer months. If the writer of the above quotations wishes to see how it can be done, let him come and take a walk over the farm, and have a quiet cup of tea with me some afternoon towards the middle or latter part of our dry season, when I think that I can fully demonstrate to him—or to any one who has the use of his eyes, and his senses generally—how it can be done.

Stable Manure for Root Crops.

I am in the habit of growing about 20 acres of root crops every year, (chiefly mangolds,) and would never think of such a thing as being able to grow these crops to any advantage in this country without the aid of plenty of good stable manure. By applying the same in the spring of the year, or after the heaviest of the rains are supposed to be over, and having the land in proper order in regard to both tilth and moisture, I always think that I get the full benefit of the most soluble parts of the manure for the first crop, without the risk of having it (the manure,) washed away, whilst there is still a good deal left for the following crops in the "rotation."

Manure Useless Without Moisture.

Again, on page six, referring to the fertilizer which the farmer stands most in need of, it says: "It should be one that will be efficient without dependence on the elements to cause chemical changes to produce favorable results." To which I say again, that without water in some shape or other there can be comparatively no results from any manure. Sow guano on a dry surface, and leave it there without rain, and what will be the result? Why, simply nothing; whereas with rain immediately after (or, if sown on a rainy day, so much the better) we get the best results possible; and farmers can hardly expect to get a dry manure in a more soluble form than that in which we get the best Peruvian guano. Further on it says, in regard to the fertilizer, "it should be inoffensive to sight or smell." Now, I must confess that we farmers are not over sensitive in regard to the smell of anything we wish to apply to the land in the shape of a manure, and I would certainly look with suspicion on any article offered as a manure entirely devoid of smell.

Quick Returns.

From the general tenor of the remainder of the pamphlet, I judge that they—the fertilizing company—contemplate making a manure, or manures, to grow three or four crops from one application. Farmers, as a rule, are not troubled with too much money, and to purchase a manure that requires three or four years of time to get the full benefit of it will never do for California farmers—it is too slow, and has been compared to putting a sum of money into a bank and using of it till it is done, instead of deriving a yearly benefit by drawing interest on the same. The cheapest and best manure for the general farmer to buy, and especially the grain grower, is one from which he can derive the full benefit in a single season—or crop—one so soluble that he can apply just enough for one crop and no more. Should the fertilizing company have any of their manures ready in time to apply to this year's crops, it is my intention to put some of their compounds to a *practical test*, and I hope with satisfactory results.

Butter Cows.

As I have referred to Mr. B.'s communication, in which he gives us some good results in regard to the yield in butter of "four ordinary American cows," I will add that 14 pounds of butter per week is not thought to be a very extraordinary yield for a good Short Horn cow, in districts where that breed is kept, as well as bred, with a view to producing milk and butter; and I have even known cows without any horns at all produce more than 14 pounds a week, but do not, till I see it, think there is a whole herd of any breed, in one man's hands, in any part of the world, that will average that amount of butter per cow. I have no fault to find with men who, in order to gratify their own taste, keep a few fancy cattle, of whatever breed they like best. Though I cannot afford to keep even Short Horns that do not pay their own way in milk when they have arrived at a proper age, yet there are some people who have a way of saying that "people who live in glass houses shouldn't throw stones;" but if our friend Mr. B. has any regard to profit in keeping cows he had better stick to the "sort" of the "four ordinary American cows" that produce 52 pounds of butter per week—and, I suppose, are worth something for beef when done with.

ROBT. ASHBURNER.

Baden Station, San Mateo Co., Feb. 7th.

[Our correspondent promises a future letter on "Mangold Growing and Subsoiling." We shall be pleased to receive it.—EDS. PRESS.]

The Value of Coal Ashes.

EDITORS PRESS:—In answer to "Suburban's" inquiry regarding the value of coal ashes for the improvement of soils, I would say that so far as regards the coals of the Eastern States and of Europe, it is well settled by experience that they act beneficially only on such soils as from their heaviness or closeness are improved by anything that diminishes their stiffness and renders them more open; they do not, as a rule, contain anything in the way of plant food or other ingredients that would entitle them to rank as manures.

The ashes of the coals of the Pacific coast have not, so far as I know, as yet been analyzed. A full investigation of the Monte Diablo coals is, however, now being made in the laboratory of the University, and for these we shall soon have the data required to determine the question asked. Considering their general character, I think it quite improbable that their ashes will possess any value as soil improvers, beyond that referred to above. Adobe soils would doubtless be benefited, but scarcely the "light soil of Oakland."

Even the ashes of lignite and peat are, as a rule, so poor in plant food as hardly to pay for their general use. The obvious explanation is that they have been subjected to the solvent action of water for such a length of time, that all that could be extracted from them by the solvents employed by plants has gone long ago. Of course the same holds true, to a still greater degree, of the true coal of ancient coal formations.

It may be interesting to state, in this connection, that an analysis has just been completed in the laboratory of the agricultural department of the peat manufactured by the San Joaquin peat fuel company, on the San Joaquin river, out of the peat-like mass underlying the "tule." The ash is about intermediate in composition between ordinary wood ashes and peat ash, and contains enough of fertilizing ingredients to render the application beneficial to any soil, provided only, that the fuel has not been burnt at so high a heat as to partially or wholly melt the ash, which is quite easily fusible.

Experiments at the University.

To the question regarding experiments with manures at the University, I reply that the effect of *five* of the chief classes of manures on the growth of wheat and oats, is now being tested on the experimental grounds of the University. These experiments will, I think, at once furnish valuable indications concerning the culture of these crops on the lower slopes of this range, and on similar soils elsewhere. But it must not be forgotten that such experiments can be only of local value, so long as we have no certain data for identifying the soil experimented on with others at a distance. This can only be done by systematic examination and classification of the soils of the State, according to their chemical and physical nature. This I regard as one of the most important branches of the State survey, but thus far it has received but very little attention. I am now working in this direction, as fast as the limited means at my disposal will permit; but unless the State furnishes special aid for the needful data, it will be slow work. Meanwhile, important results might be obtained through the co-operation of agricultural societies and Granges; and, in a circular issued in August last, I have invited such co-operation, explaining the objects in view. Among the most important of these is the carrying out of experiments in culture, manures, etc., *in loco*, on the various soils in their natural locations, it being impossible to imitate them artificially. And even if it were possible to do so, or to transport carloads of the several soils bodily to Berkeley for the purpose of experiments, the latter would still fail to possess much practical value, because the soil would be placed under conditions altogether artificial, and as to climate and many other points very different from those obtaining in nature, or under location cultivation in their locality of occurrence. This costly mode of experimenting would therefore after all fail to yield results applicable to practice. Such experiments can be made very cheaply and easily where the soils occur, after the nature of the latter has been so far ascertained by scientific examination as to show the direction in which improvements may most cheaply be made; and this is the method pursued in Europe by the "experimenting stations."

I am now prepared to give such preliminary examination to soils, so far as it can be done in the laboratory (which has been fitted up for this express purpose at the University), by myself and my assistant. In cases involving questions of importance to large districts or interests, I propose to make local examinations, so far as compatible with the duties of class instruction.

I can but repeat here, most earnestly, the invitation already given to agricultural societies, Granges, and individuals, to communicate facts and queries bearing on agricultural subjects, which may be elucidated by scientific examination. And I cannot omit suggesting again, that groups of Granges occupying regions possessing similar soils and climates, would find it to their interest to devote a few acres of ground, judiciously selected, to the purposes of local experimental stations, where new cultures and modes of improvement of whatever kind might be practically tested, with the co-operation of the agricultural department of the University in all points requiring scientific investigation or examination. There is a certain class of general experimsuts which can and will be made at the University grounds at Berkeley, so far as the means at command shall enable us to perform them. But we cannot test here what is good for the foothills of the Sierras, or the plains of the San Joaquin. The scientific examination will enable us to make suggestions, but the final practical test must be made on the spot. And if those directly interested will but lend their aid, much may be done in advance of a full agricultural survey, in the thorough performance of which no State is more deeply interested than California.

E. W. HILGARD.

[Prof. Hilgard's letter exhibits an earnest spirit and desire to make his department of real, practical value to the farmers, and it gives us pleasure to call attention to the fact. His suggestion of careful experiments in local stations under the direction of the Granges and farmers' clubs meets with our hearty approval. We want more true light on the capacity of the different soils of our State. This light must be evolved from experience and experiment under the conditions which prevail. Science can point the way, it may open the case as the lawyers say, but evidence in the shape of careful practice must follow to secure a true verdict. The agricultural department of the University declares itself ready to do of value to the agriculturists. What farmer or farmers' society will use it.—EDS. PRESS.]

Growing Onions.

EDITORS PRESS:—In the last issue of the PACIFIC RURAL PRESS I find the following question, which I desire to answer:

"Will the seed from onions planted out in the fall, before the rains commence, be as likely to produce onions that would be good keepers, as onions raised from seed produced by onions kept until the first of March, and only those planted that were not sprouted at that time?"

We answer yes, for various reasons:

1. The keeping quality of onions does not depend so much on the time when the bulbs which produce the seed are planted as it does on the soil in which they are raised. A dry, sandy loam soil will produce better onions for keeping than can be raised on low, heavy adobe land.

2. Much depends on how onions are cured and cared for during the winter. Improper treatment in this regard will make more than one-half difference in the keeping of onions produced from the same seed. If a second growth is allowed after the onion has ripened, this, in itself, will spoil the onion for long keeping.

3. Our Yellow Danvers onion, when raised on suitable soil and properly cared for, can be kept in a good state of preservation until quite late in the spring, but when shipped to San Francisco in the fall and allowed to remain in sacks, on the sidewalks, even the best of these onions will, after a while, begin to grow and rapidly perish.

4. From thorough tests made by some of the most successful onion growers in this county, and by myself during the last few years, we conclude that the earliest ripened onion seed produces the earliest and best onions for keeping.

We have planted Eastern and California Yellow Danvers onion seed in the same fields each year, the latter producing the best onions, having less scallions, and ripening earlier. We know of but one reason why California onion seed produces ripe onions sooner than either Connecticut or English grown seed, namely, that our onion seed ripens several weeks in advance of theirs. Last year I had our Yellow Danvers onion seed planted by several parties at Rochester, N. Y., with the best Connecticut seed of the same kind, in order to prove this point, and the result was such that California onion seed was acknowledged to be superior to theirs, even by those who were before considerably prejudiced against it.

I have raised onion and other vegetable seeds, in different localities, for a good many years, and by much care and observation, I have gained an experience in this line of business which is far more reliable than a mere theory. I know that the onion bulbs produced in California are much more perfect in every particular than any grown elsewhere on this continent. Our climate and soil are second to no other in the world for the production of choice vegetable seeds, onion seed in particular, and I feel quite confident that with proper care in selecting and curing the onions to be planted for seed, and drying and cleaning the seed after it is raised, that the time is not remote when the excellent qualities of California onion seed will be so evident to the onion producers of the State, that there will be little, if any demand for any other. You may expect to hear from us again some time on this subject; then I will furnish other witnesses to more fully attest the facts I have now stated.

R. W. WILSON.

Santa Clara, Cal., March 7th, 1876.

The Eucalyptus in New Localities.

EDITORS PRESS:—A good many patrons of the PRESS having applied for blue gums through the offer made by me recently to furnish tree young trees to test, and as these trees will all go into inexperienced hands, who know nothing of their nature, I avail myself of your excellent paper to give specific rules for their management. The trees I shall send out are all winter grown—consequently are very hardy—and will stand a temperature of 12 degs. below the freezing point, or 20 degs. Fah. Summer grown blue gum trees will stand only about 25 degs.

When the trees are received by applicants they should be temporarily planted in boxes or heeled by covering the roots with earth, then watered moderately and set away in a cool but protected place. When the ground can be worked so as to pulverize well—after the heavy spring weather is over—they should be planted in soils thoroughly drained, as they are so sensitive to an excess of water at the roots that when the temperature falls below 25 degs. they decay and die, commencing at the root first. We will discover the disease when past a cure.

A very important point to be remembered in planting is: Don't use any manure except that which is so thoroughly decomposed as to resemble good black loam; and even then it must be used very sparingly, mixing well with the soil before planting. If the locality is very dry it may be necessary to water the young trees late in spring and continue so until July or August. In all cases a more regular growth and much hardier trees will be obtained by

Mulching With Straw

Very freely, which will save fully two-thirds the labor of watering by preventing the evaporation of moisture from the earth. Water in excess should not be given; not but they will grow more rapidly, but the object must be to secure a hardy tree, until the critical time has passed, when nature will do the rest. Hence, water once a week until July 15th, if in dry location, and by September 1st discontinue all further assistance. The growth will then be checked, laterals will mature, and by the time cold weather sets in the tree will be semi-dormant and in fine condition to battle with the elements. Most persons are apt to spoil their eucalyptus by improper pruning. Another pernicious practice is driving a stake alongside of the tree and fastening it to it. They simply want neither pruning nor support by staking. Only let them alone. The only pruning at any time permissable is *pinching out the top*. No more than this. Leave the bottom limbs on by all means, and nature will reward your labor by giving you a beautiful, well-balanced tree that will be a pride forever.

W. A. T. STRATTON.

Petaluma, Cal.

Deep Plowing in Tulare County.

EDITORS PRESS:—I notice a communication in your issue of the 4th inst., from your correspondent at Antioch. So far as Tulare county is concerned, some of his ideas are quite impracticable. With regard to "dry plowing," I agree with him that it not only impoverishes the land, but helps to keep it full of weeds. But on shallow plowing we differ; for here at least it is considered one of the shiftless practices of the past, and no one who deserves the name of farmer would be guilty of slighting his land by half plowing it.

Your Antioch correspondent's land takes only 36 to 40 pounds of seed, and produces 14½ bushels per acre. In this locality, 60 pounds of seed is about the average, and we get a yield of seldom below 25 bushels and often 60 bushels per acre. At present, but few if any of the farmers in this vicinity would agree to harvest their crops of cereals when ripe, and take 40 bushels per acre for what their land will produce this year, except it should be "volunteer," which is so forward and rank in growth that it is in danger of being killed by the late frosts. Our soil is composed of a sandy loam, which, with often and deep plowing, will grow anything from a peanut to a pumpkin.

G. W. CAMP.

Grangeville, March 6th, 1876.

[Deep plowing for grain is, of course, a local question, because its value or injury must depend on the soil and subsoil in which it is practiced. We are pleased to have notes of its success or failure in different parts of the State, for thus, in absence of any complete agricultural survey of the State, some idea can be obtained of the conditions which prevail in different sections.—EDS. PRESS.]

A Nevada Farmer on Irrigation.

EDITORS PRESS:—Your State seems to be undergoing some excitement on the subject of irrigation. Well, we depend solely on irrigation, and

"The lowest genius may afford some light,
Or give a hint that had escaped your sight."

First, We find that irrigation adds to the cost of production in grain, though not in vegetables, vines, trees or grass. Most likely, so far as the raising of cereals is concerned, the California farmers (should they get a State system of irrigation), will be sadly disappointed. A system of irrigating ditches so immense as to be of general benefit would, in all probability, be attended with profitable jobs to some; and on the contrary, quite the reverse to others.

There seem to be rather crude ideas ventilated through the papers in regard to the subject. As an instance, take Brereton's, that a canal or ditch must he as large at the lower end as at the upper end, when the fact is, that when half the water has been used, a ditch of only half the capacity is required. The amount of land below would have nothing to do with it; or, at least, that is my experience. But it would look rather strange to see California hunt up her old shovel again and strike out on the call that "the ditch is broke." A few of those who wish to try irrigation might come to this valley and try it a little. Free water can he had and as good alfalfa land as any in California, for $1.25 per acre—homestead or preemption.

It is only lately that we have tried alfalfa, but it does splendidly. We have had no snow to stay two hours this winter in the valley. Stock of all kinds has done well. More anon. BUTTERFLY.

Mason Valley, Nevada, Mar. 5th.

Experience in Humboldt County.

EDITORS PRESS:—I see in the RURAL PRESS, under the head of "Practical Questions," some one wishes to know all about manuring, tile draining, high cultivation and the rotation of crops. Now, as to tile draining, have you got the tile? If not, I will tell you what I use as a substitute. I take redwood boards one inch thick and six inches wide and put them together like a trough, and put them end to end in the drain. I fill up solid and my drain is complete. I make my drains three feet deep.

The rotation of crops is not so easily managed, on account of the difference in climate and soil. The best change we can make in Humboldt county is from grain to peas. If the land is poor, hog the peas off; if the land is rich, harvest the crop. Any kind of clover will do well where the land is moist, except the peat lands. The manure question is more complex; some lands want lime, others marl. Heavy soil for roots does well with bone dust. Do not burn your straw, let pigs and cattle rot it, and then take it back to the land. Those who live near a slough can get a fertilizer by dredging. Leave the mud on the banks until dry, then apply it. JAMES SMITH.

Ferndale, Humboldt Co., Feb. 23d, 1876.

[We shall be pleased to hear from our correspondent further on agricultural experience in his county.—EDS. PRESS.]

Hints for Work.

EDITORS PRESS:—The accumulation of work on the farm never ceases. Its variation far surpasses the tints of the flower. It is this change that makes home work on the farm easy and so desirable. While our vast fields of grain are maturing others soon will be ready for summer fallow. Right here a good word can be said in in its favor. The "plowing in" after reaping does not apply in this section. The "resting season" reaches till late in the spring. Soon the time will be at hand when the accumulation of stubble, weeds, grass and the droppings of stock will be turned over to lie dormant and decay, replacing the lost strength drawn out hy the last crop. True, by the "washing away" of the surface by the rains the substances change places, but the majority of ingredients remain.

To keep clean the surface turning in of stock is practiced, and those who have sheep allow them to graze and destroy all thistles, noxious weeds and everything that has a tendency to drop seed. When seeding time comes a clean surface is at hand and a clean crop will he the result.

The flower garden will soon require attention. The various bulbs are in bloom and the "fixing up" will require a ready hand. Many are drossing up their vineyards. The swelling fruit buds are opening and ask Jack Frost only "just to be left alone." Some are at work in the kitchen garden, so that the matron may have hor choice in supplying the table. The "small fruit department" should not be forgotten, with its variation of fruit. The present sunshine and the twitteriug of birds betoken spring time, and soon the spring flowers will deck nature's lap. G. R.

Florin, Cal., March 3d, 1876.

HORTICULTURE.

Fruit Tree Pruning.

EDITORS PRESS:—In your last issue a brother subscriber of the RURAL, hailing from Santa Clara, is taking me to task for what would seem to be "rash advice" on my part to people owning an orchard or desirous of starting one; hut, in the course of his letter, your correspondent is kind enough to refer to me as an "experienced and high authority" on the questions argued hy us. In reply, I will tell my friend from Santa Clara, that I am no authority at all that I know of, low or high, and have no more claims to such a title than any other practical correspondent of the RURAL. It is true that for many years I have paid much attention to certain branches of agriculture, studied and investigated them closely, and in this way obtained much experience and information, particularly in pomology, the cultivation of fruit and mulberry trees, and grapevines, grafting, strawberry culture, silkworm raising, etc. It is equally true that from time to time, on my own accord, or at the request of subscriber friends of the RURAL, I have written for your excellent sheet lotters on all those various topics, and am always ready to impart to your readers whatever information or knowledge I might possess, if it can be of some use to them.

But your remarks accompanying the letter of your Santa Clara correspondent were to the point, and I will add that a correspondent that would not like to have his ideas criticized, has no business to make them public. I certainly am not so conceited as to think that I know it all, and in many ways have I profited by the ideas, experiments or advice of many of your correspondents, whose letters are always welcomed and surely read hy me, for I am desirous of obtaining practical knowledge, and do bel eve that "two heads are better than one." As you say, let us by all means have a full comparison of experiences, or in o her words, hear all sides, and then decide. One thing, however, I have to apo ogize for; it is that, though I may be able in my humble capacity to handle the pen somewhat, in a language, too, in which I was not raised, I confess my complete inability to master it well enough so as to condense in half a column all that had to be said on the important question of pruning, and which would take a whole number of the RURAL. No wonder that I might be misunderstood. But since your Santa Clara correspondent challenges me directly to answer certain questions on pruning, while your Cherry Vale correspoudent puts them in this way: "Why should any fruit tree be pruned? and what are they pruned for?" I will, if you allow me, try to answer satisfactorily both and all.

As I have said in my former letter on Orchard Culture, the most delicate operation of orohard work is certainly that of pruning, and I gave a list of trees that, outside of general pruning, do not gain anything hy being pruned, viz: walnut, chestnut, plum, cherry and medlar. Your Santa Clara correspondent acknowledged that I was right concorning the walnut and chestnut, so here was a point gained; he was then kind enough to remind me that the quince ought to have been included in the list; in that he is right, and if I did not mention the quince and fig, I thought it was unnecessary.

In the question of pruning there are two distinct parts: First, general pruning; second, fruiting pruning.

General Pruning

Can he done by any person that adds taste to a little practical knowledge. It consists in taking out the dead wood, weak or damaged branches, in keeping the head of the tree in good shape and thinning out the inside so as to allow air and light to get in without exposing the fruit too much to the scorching sun of our summers. This is the kind of pruning I have been advising people, totally ignorant in the art of raising fruit trees, to resort to; and let me say that I am addressing myself all the time to those people who, though having but very little knowledge on orchard culture, do have orchards, rather than to the professional orchardist or amateur pomologist. If you make it too scieutific or too much of a work in raising fruit trees, be sure that not five out of 100 will follow your advice. What people want is the most simple method, easily to be understood, and which takes but little time to he carried out. For instance, your Cherry Vale correspondent, whose letters on Cherry Culture aro really worth a perusal, may be right in his system of raising cherries, but I candidly put the question to you, how many people will take the pains of following up his instructions to the letter? I, therefore, advised what was really practicable and easily understood concerning the rearing of fruit trees, warning people against the danger of slaughtering down their trees.

But when we do get beyond general pruning, there's where our hair gets short, as the schoolboy would say, for we step there into scientific pruning, which aims at nothing else but making the trees bear well, better and larger fruit, and bear every year. I do not pretend to be posted in this art of pruning, and as I do not like to speak on a subject that I have not thoroughly investigated, I will leave the task of enlightening your readers on that particular question to some more experienced pomologist; however, I know so much, that there is a marked difference in both the training and pruning of stone and seed fruit trees. Let us look first at the

Stone Fruit Trees.

Take the peach tree, it is in the hands of the skillful pomologist as wax in those of the statuary, raised in espalier. All kinds of shapes can be given to it, and, as a standard tree, it is as easy to give to its head a nice, regular form. Now, how is it with the apricot; have any of your correspondents ever tried to train that tree as is done with the peach? If they have, they surely found out that the apricot was as difficult to train as the peach was easy, and this is the reason the former is let alone outside of general pruning.

The plum tree is almost as bad on that point as the apricot, and, as its mode of vegetation is the same, it is treated in a like manner. There is, however, this difference, that the branches of the plum tree are less liable to die out suddenly, and this fact gives a better show to shape its head.

The cherry tree, though standing pruning better than the plum and apricot, is nevertheless set in the same category, having, like the others, a considerable number of small twigs covered with fruit buds, and which constitute the main crop. In fact, the wood of all those trees, main branches as lateral ones, are lined all along with fruit buds, so that people have to be careful what they do, if they wish to have apricots, plums and cherries instead of shade trees. Cutting down half of the crop, decreasing, by excessive and repeated pruning, the longevity of the trees, giving them a bad shape, exposing the balance of the fruit to be scorched by the hot sun, that is what some people call pruning.

Now let us glance to the opposite class of fruit trees, which have seeds instead of stones, like

Pear and Apple Trees.

We will see that the vegetation of the latter is quite different from that of the former. Their blooms do not come out singly, as those of stone fruit, but in bunches enclosed into buds, generally of large size. Those buds, too, are a great deal more slow to form themselves into blooms, and sometimes years are required before, through successive modifications, they are ready to bloom and fruit. Thence its totally different way of being pruned.

Like the peach, the pear is very easy to grow under any shape, espalier or standard, and it is particularly with it that special pruning is needed to bring to fruit those dormant spurs. Your Santa Clara correspondent desires me to name him any kind of fruit tree which is not the loser by being pruned. I will name first the pear tree, then the grapevine, that do gain in being pruned, and in a certain degree the peach and apple.

But as corollaries to the art of pruning, there are many other practices that have to he resorted to hy the amateur orchardist who desires to obtain much fruit, good sized, and of a superior quality, and regularly every year, and which will help considerably to the vegetation, shape and longevity of fruit trees. I mean the pulling off of dormant buds in winter, the nipping of growing buds in the spring, the pinching of tender shoots, circular and longitudinal incisions, notching of too vigorous branches, etc.

The Medlar.

Last I will speak of the *Mespilus Germanica*, or common medlar, a tree indigenous to Europe. It is a small sized tree with crooked branches, which can be given no shape by pruning. It is generally grafted on the *Cratœgus oxyacantha*, or white hawthorn; my tree is thus grown. My little medlar tree, hardly eight feet in hight, bore in 1874 over 200 large medlars, that were found excellent by the rural folks; the heavy frost of last year made it bear half a crop that year. I will not prune it much, for I keep it more for fruit than an ornament to my garden. Each bud of the previous year's wood grows a little twig, at the end of which comes out a bloom. The more buds you prune off the tree the less fruit you will have. It is the first time that I ever heard of medlars and walnut trees being pruned; but it is likely a new departure on the part of some of our pomologists. I will, then, assert anew that walnut, chestnut, cherry, plum, medlar, and I will add quince and fig, outside of general pruning, are the losers by pruning; I mean to say, to be more clear, that they will bear plenty and nice fruit, and regularly, without resorting to it in the same manner as it is the case with peach, pear, grapevines and others.

Here in California, there is the wrong idea that trees are growing out very differently than in any other countries. This is not always the case, and I will refer people to such countries as Italy, Spain, Turkey. They have a mania for slaughtering the trees, one family as well as the other, the stone fruit bearer, which is so prolific, as well as the pear or apple tree; the kings of our forests, the walnut and the chestnut, as well as the poor little medlar. They do not spare any. But we are a go-ahead people; we do things differently, for California is a great State. However, once in a while, a plaintive voice will rise over the carnage field and call attention to our mutilated and desolate orchards, those eloquent witnesses of a barbarous method of setting out trees and taking care of them, "the dead trees piled up in hedge fence rows," as so eloquently said one of your correspondents.

Speaking of fruit trees, there is a point on which I would like to get some information. Most of your readers must have been more or less bothered with

Borers

That pest of our young fruit trees. I generally go among my trees, especially young ones, in the month of June, examining them, and wherever I see a dark brown spot on the body of the tree, most often a few inches above the surface of the ground, I open the bark with the point of my knife, hunt up the borer under the bark and kill him; hut this is tedious, slow work which requires, even, to he done over again through the summer. Young apple, quince, plum, sometimes cherry trees, are the sufferers. I have heen told, and am going to try this year, that a small nail driven into the body of a tree, a little above the ground, is a sure preventive against borers' depredations; the sap tasting of iron drives the borer away. Have any of your readers ever tried it? If so, I and others would like to hear from them through the RURAL. FELIX GILLET.

Nevada City, Cal., Feb. 27th, 1876.

STOCK BREEDERS.

Live Stock Transportation.

A bill which has just passed the U. S. Senate provides as follows:

"That no corporation transporting animals from one State to another shall confine the same in vehicles, railway cars, boats or vossels of any description for a longer period than twenty-four consecutive hours, without unloading the same for rest, water and feeding, for a period of at least seven consecutive hours, unless prevented from so unloading hy storm or other accidental causes; that animals so unloaded shall be properly fed and watered during the rest by the owner or person having the custody thereof, or in case of his default in so doing, then by the company officials, at the expense of the owner or custodian; said officials not being liable and the company having a lien upon the animals for food, care and custody; that the penalty for failing to comply with the provisions of this law shall be a fine of not less than $100 and not more than $500, or hy imprisonment for not more than one year, or both. But when animals shall be carried in vehicles where they have proper food, water, space and rest, the provisions in rolation to unloading shall not apply."

It is now claimed that the whole pith of the bill lies in the exception and not in the rule. On this point the New York *World* says:

"This clause, excepting from the provisions of the hill in relation to unloading all animals carried in vehicles where they have proper food, water, space and rest, is the strong point in the bill; and in view of the fact that a cattle car has been recently introduced on the Pennsylvania Central railroad with an ingenious device by which beeves, sheep and hogs are fed and watered in the car, it may be fairly inforred that one of the purposes of the new law was to hring this feeding and watering device into general use. It is claimed by hog-slaughterers here that more damage is sustained through the unloading and reloading of hogs than from any lack of feed or water, even when the hogs are unloaded hut once between Chicago and New York; and experience has provod that the sooner fat stook reaches the market where used for food, the hetter for hoth shipper and customer. The shrinkago is less, the shipping expenses less, and the damage from bruises a large percontage less."

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

A Day for Tree Planting.

Bro. Cooley, for the Committee on Good of the Order, reported favorably on the resolution recommending that a day be set apart by the State Grange for the planting, by the roadside, of shade trees, and that Patrons observe that day.—*Report of Cal. State Grange*, 1875.

We think the above proposition, carried out by every Grange in this jurisdiction, would result in more benefit to the people of this coast than a donation of millions of dollars. The enjoyment of the day would be a lasting blessing to those who devoted their time to the work. The example set by the association would stimulate individuals to plant trees more fully. Good acts are contagious. Other methods of improving and beautifying private and public grounds would be adopted more extensively. Those who commence this work in earnest, no matter how limited their means, and accomplishments, will deserve the greatest praise.

How will the Patrons' anniversary day, Dec. 4th, do for tree planting in California? It would be symbolical, if we plant deep and well, of the great and noble work of the founders of the order. If desirable, the labor of the occasion could be commenced the day before, or finished the day after.

Shall we hear from the Executive Committee on this matter? Let us hear from the Granges and individual Patrons.

Masters of Subordinate Granges.

Masters who have not the A. W. can have it by applying to the W. M., either personally or by letter, through the Secretary's office.

In reply to inquiries I will say that monthly dues from members to Subordinate Granges are computed from the first day of the month subsequent to their initiation.

That quarterly dues from Subordinate Granges to the State Grange begin at the commencement of the quarter subsequent to the organization of the Grange.

Amos Adams, Sec'y., State Grange.

How and Where it Pays.—It has been suggested that the National Grange officers should make a methodic effort to obtain from Masters, Lecturers, editors of Grange papers, etc., the actual facts, as far as possible, as to the pecuniary gains of the Order, first, in the several counties of each State, and second, in the States themselves, from buying and selling through agents and county and business associations. Careful estimates in this direction have been made upon the meager data on hand, which go to show that in Canada, where the Grange has but lately been established, it does not yet appreciably repay membership; in Kansas, Nebraska and Missouri it pays probably half as well as in Iowa and Illinois; in Ohio and Indiana it pays three times as well as in Iowa and Illinois; in New Jersey it pays better than in Ohio, and so on. We should like to see some reliable statistics of this character from the several counties in California, and from the State at large. If we are not much mistaken the showing here would be better than from almost any other State in the Union.

Prosperity of the Order.—Secretary Kelley informs the *National Granger* that, of late, the Order appears to be everywhere animated anew; that an average of nearly 200 new Granges is reported every month, notwithstanding it seems that almost the entire territory of the Union is occupied. This same vigor and interest is also manifested among nearly all the old Granges, in which the members are becoming more prompt and regular in their attendance, and are entering more freely and with increased interest into the discussion of matters pertaining to the good of the Order and to the betterment of the agricultural interest generally. There can be no question but that the Order has passed fairly through its experimental stages, and is now settling down to permanent work. Its future efforts will be directed more to the strengthening and consolidating of the Granges already in existence, than to organizing new ones.

No Work, No Pay.—A Grange brother being asked by a sister why he had not attended regularly at his Grange, said that he did not see that it was paying him. "Well," she said, "you should remember that a Grange is like a farm, and the members are as laborers—they get pay in exact accordance with the work they do."

Something Good to Come.—The printing of our Grange Directory last week and the press of news letters from the Grangers this week has compelled us to delay printing a very interesting talk to the Patrons of Eden Grange, by Sister Perham. We can assure our readers that it is "something good to come."

From the Granges.

Ventura County Granges.

Editors Press:—The Granges in this county are suffering from the inevitable reaction that always comes after excitement, like many other Granges all over our country, East and West. Many persons united with the Grange expecting to be benefited pecuniarily, and with no other object. They have no aim beyond the money making business; no intellectual tastes to gratify nor desire for social improvements. Because the Grange did not make money for them without an effort on their part, they are disposed to leave it, some in dishonor and some honorably. They cannot appreciate the importance of the movement and are too selfish to be willing to derive good where it comes to all alike. The distrustful are not likely to be public spirited nor benevolent.

I hope we have good, strong, generous minds in our county to renew the interest and accomplish work of more permanency than heretofore. I do not see why we may not be as successful as some of the Granges near San Francisco. It is true we are not quite as accessible, and it costs a little more effort to sustain near relations with headquarters. Some complain of favoritism and some listen to the flattery of the commission merchants, and think themselves wise when they repeat the prophetic words of those in high places, directly opposed in their business to our interests; men who are seeking to cloud the characters of every prominent leader in our glorious cause. I have visited all the Granges in our county and am glad to witness the reviving interest. I think we shall soon be in good working order. If we do not awake to our true interests this season, then we may conclude that we as farmers are lacking in character and ability.

Saticoy, Feb. 28th, 1876. E. B. H.

Sacramento Grange.

Another social feast occurred at Pioneer hall on the 26th of February, calling together those who take a lively interest in Grange welfare, exchanging thoughts and gathering practical ideas to work on in the future. The mere eating or seeing who can display the finest cooking is not all to be attained, but the exchanging ideas pertaining to the farm and household, and the practical work growing out of them.

After the feast the Overseer read a practical essay on finance, bringing the subject home to every day thoughts and precepts. The lateness of the hour closed the subject and it will be thoroughly discussed in its widest sense at the next meeting.

The Grange can be a means of intellectual culture as well as the farmers' clubs, if the disposition of its laborers is right, and a more united effort displayed to work up the dormant soil to active use, bringing out practical ideas in all their bearings. The year opens well and only needs more handy work and heady action to ensure its rewards.

Just as the soil was getting pliable to work, a heavy storm of wind and rain set it back. Many are waiting to summer fallow and go to planting. March may be pleasant, but it is usually rough. G. R.

Florin, Cal., Mar. 3d.

Watsonville Grange—Interesting Incident.

Editors Press:—Watsonville Grange has been in existence about two years; it has worked steadily along, slowly but surely, and has always kept in view "the good of the Order" as a means of advancement and education for farmers and their families. Although the financial part has not altogether been neglected, yet our brethren have never forgotten everything else in a desire to gain "two bits" where they only gained one before. Perhaps losses in times past had something to do with this state of affairs, and some of our members have nobly proven that they did not put a money value on the Grange, else they had dropped it long ago. One thing the steadfast members have found out: That is, that they love the Order; they love it for its educational qualities, its social pleasures, and for the hopes it bears for the future. Our worthy Secretary last year was a young lady, and she faithfully performed the duties of that responsible office. After her successor was duly installed, the Grange concluded to present her with a token of appreciation. A handsome writing desk and gold pen was selected and duly presented by the Lecturer, with this little speech:

"I present this gift in the name of the Grange, as a well earned testimonial to your faithfulness, worthy sister, in discharging the duties of your office during the past year."

It was accepted in our Past Secretary's own modest manner, after which the Lecturer again claimed the floor, and made the following remarks:

"I should like to take advantage of this moment to say a few words to the Grange. This presentation ought to be regarded as one step toward a great reform. And it would be a promising omen if every Grange in the United States would make it one of their vital principles to reward well doing in their young women. While vanity and fashion are holding out their allurements, what are we doing to stem the tide and turn aside even a few to the ways of usefulness? What are we doing to instill into the minds of our young women a love of utility as well as ornament? We surfeit them with lectures, and hold before them terrible examples; but what practical step have we taken in the Grange toward training their minds to set and reason. We forget that their minds are all alive and running over with vitality, seeking outlet and employment. We forget that a girl's mind seeks an absorbing occupation with the same tenacity that a boy's mind does, and that they also have an eye to results and the reward of diligence. When our boys leave school, they are hired or given an interest in the farm, or set up in business. When our girls leave school they come home to the daily routine of housework. But who thinks of paying them wages? Young women are reproached oftentimes in the public press with being 'hangers on' and idlers, waiting for husbands, when in reality no hired help could fill their places in the family; and yet they are not recognized laborers, 'worthy of their hire.' You may tell me that the style of dress of young women costs more than their wages would come to. Then you have no right to provide it. Pay your daughters as you do your sons, customary wages. Allow her the spending of her earnings, that she may learn to spend money wisely. People act very blindly about this matter; they are continually trying to 'mold the clay' after it has hardened, or to straighten 'the tree' after it has attained its full stature. The Grange could do a good work in this matter by encouraging young women to attend, whereby they would learn much of business matters, asking them up to think and reason on matters of importance. And where any one can fill an office capably, give her the responsibility and do not forget to reward her for faithfulness by your good words, if nothing else." All of which I endorse.

M. E. Tuttle.

Bear Valley Grange.

Editors Press:—I have seen nothing in your columns in reference to Bear Valley Grange since it was organized, November, 1874. It has been progressing rather slowly, but as well as could be expected under the circumstances, which have been very unfavorable. It seems to be a difficult matter to get the people here to understand what is best for their own interest. They have been duped so long by the speculating class that they have become accustomed to it, and seem to think but little of it. Some of our members have moved away, and some that are left seem to be rather lukewarm in the cause, and do not take the interest that true Patrons should. Yet we live in hopes, and think that better times are coming, and a few of us propose to stick to the Grange, for we know when the Grange work ceases, monopolies and oppression will increase.

W. H. H. D.

Valley P. O., San Diego Co., Cal., Feb. 26th.

Mason Valley Grange.

Editors Press:—You don't probably hear very often from Mason Valley Grange, No. 7, Nevada, so I propose to write it up a little. We started out lively enough, but then came a dull season, when nearly all lost interest or became discouraged, thinking themselves too poor and weak and too much isolated to make the organization of any benefit; but of late there is new interest awakening in our Grange We received the accession of six new members yesterday evening, and still more are coming. We held a festival, after which, instead of the usual dance, there were sly corners and soft whisperings, and hurryings to and fro and measurings of tape and side hill plows, and hen coops to be supplied with chickens, and faithful subjects baptised by their queen, and all went merry as a dinner bell. Butterfly.

Mason Valley, Nevada, March 5th.

Windsor Grange—Words of Cheer.

Editors Press:—The ceremony of installing the officers of this Grange was performed on Saturday, February 5th, by Bro. E. H. Barnes, assisted by Bro. Runyan. We have 44 members on the roll.

Our Grange is not very enthusiastic just now and has accomplished nothing in the way of financial success, yet if we consider the growing desire for information respecting governmental affairs and reformatory ideas gleaned upon various subjects, we have cause for rejoicing. We are contemplating the building of a warehouse at this place.

Farmers are awaking to the necessity of co-operation—learning that they can never have the proceeds of their labor while there exist systems, monetary, mercantile and distributive, that rob all labor, that to invest a soulless metal or bits of paper, which eat not, neither wear out, with the power to add to the possessor's so-called wealth three times faster than any toil can accumulate the same, is to enslave themselves and every one who toils. So many are to day climbing to fortune's pinnacle upon labor's cries that there must soon fall from labor's sons of toil a mighty oath, that, as it leaps from soil to soil, will, like the whirlwind, scatter in its path the usurer's power, with all its kindred mockeries. Then starting as from a second birth, men in the sunshine of liberty's spring will act independent of gold's metallic ring.

We hail the Grange organization with joy, and are content to work, to fight and to dig, until we find a foundation so broad that every child will not only be born free and equal, but have insured to him through life equal opportunities in every department thereof, of which they can never be deprived by systems of trickery or cunning—the inventions of selfish brains.

And now, Editors Rural, through your courtesy permit a sister woman to thank Mrs. M. E. Tuttle for her able and sensible words in your issue of January 29th. From *one* heart, at least, went out a "God bless you," as the truly womanly words were read. I hope every toiling sister will profit by the advice and encouragement, and let those who do not like their appearance or table make fewer visits.

But this—"Some must labor and bear the heat and burthen of the day and thus conform to nature's plan." Oh, sister! you hardly meant *just that*. 'Tis not "nature's plan" that some have to "bear the heat and burthen," but the results of our false systems which enable a few to roll in luxury, while the many, equally as deserving, toil early and late for a mere subsistence. No, no, my sisters (and brothers, too), 'tis not nature's plan, but man-made laws, made by your own ballots, brothers, that enslave you; that makes it needful for you to practice such pinching economy after cresting all the wealth; that gives you no time to cultivate the finer arts or even indulge in the amenities of life. Why, the sweet thrills of affection are hardly yours; the love of the beautiful in your souls is dwarfed. We bow our heads from dawn until dark, scarce viewing the beauties of nature that are spread out on every hand and through which the voice of a beneficent creator is ever whispering to each struggling soul, "onward and upward." We scarce ever feast our eyes upon the varied beauties that adorn the azure dome, thereby catching the inspiration that carries the form erect, that makes the pulses bound, the eye to flash, and fills the heart with love for all created things.

No! laboring forms are bent, the fire is dead, the nerve weakened, until in suppliant meekness they beg a crumb of the bread they have created and thankfully lick the hand of the wealthy who permit them even so much. But a brotherhood of equal toil, with juster trading marts, shall mend the rents that greed hath made and bind the broken hearts. "The rights of man" will be recognized; pale woman will joyfully sing; instead of tares, the willing hands a crown of sheaves shall bring.

Eleanor L. Lindsay, Sec'y.

Lake Grange.

M. M. Rhoads, Secretary Lake Grange, Tulare county, writes that the Grange is getting along admirably.

Election of Officers.

Capay Valley Grange, No. 90, Capay, Cal. Election, March 10th: J. M. Rhodes, M.; W. D. Holcom, Sec'y.

[We would like the full list.—Editors Press.]

Lake Grange, No. 134, Lemoore, Tulare Co.—R. B. Huey, M.; W. H. Docker, O.; M. S. Babcock, L.; J. W. Rhoads, S.; S. McLaughlin, A. S.; J. F. Phillips, C.; D. Rhoads, T.; M. M. Rhoads, Sec'y; G. W. Skaggs, G. K.; Mrs. A. Rhoads, Ceres; Sister Bicknell, Pomona; Sister Skaggs, Flora; Sister Armstrong, L. A. S.

Lakeside Grange No. 252, Janesville, Lassen Co., Cal.—L. Hicks, M.; Mrs. M. F. Bangham, Secy.

[We should like the full list.—Eds. Press.]

Laurel Grange No. 263, Booneville, Mendocino Co., Cal.—N. V. Ingram, M.; Wm. Prather, O.; M. O. King, L.; Wm. Rose, S.; D. C. Ingram, A. S.; R. L. Obarr, C.; Henry Clow, T.; F. M. Hunt, Sec'y; J. D. Ball, G. K.; Mrs. C. M. Knowles, Ceres; Mrs. Ella Hunt, Flora; Miss Ella Ingram, Pomona; Mrs. M. F. Ball, L. A. S.

Santa Cruz Grange No. 68, Santa Cruz, Cal.—Blakie Pilkington, M.; John W. Morgan, O.; D. C. Feely, L.; Lewis Bergenzer, S.; C. T. Kilpatrick, A. S.; Geo. H. Bliss, C.; Wm. Oliver, T.; David Wilson, Sec'y; Henry Danbenbiss, G. K.; Mrs. B. Pilkington, Ceres; Mrs. L. H. Comstock, Pomona; Mrs. C. Humphreys, Flora; Mrs. B. P. Kooser, L. A. S.; Trustees, L. H. Comstock, G. P. Lsird.

Yuba City Grange, No. 65, Yuba City, Sutter Co.—J. C. Dresser, M.; J. Hardy, O.; M. F. Honan, L.; J. Onstott, S.; Wm. Hardy, A. S.; M. L. Sutpheu, C.; T. B. Hull, T.; S. R. Chandler, Sec'y; R. Hobbs, G. K.; Mrs. A. Dresser, Ceres; Mrs. R. H. Walton, Pomona; Mrs. Mollie Douglas, Flora; Miss H. McKinnon, L. A. S.

A Good Movement.—The Virginia State Grange, at its late session, made the following sensible and practical addition to its by-laws, with the view of preventing litigation between members of the Order in that State: Members of the same or different Granges shall not resort to litigation, without first submitting a plain written statement of their differences to the Executive Committees of their respective Granges, and endeavoring to obtain a settlement of the same. Said Executive Committees shall act as an arbitration board to adjust said differences.

National Grange Lecturer.—Past Master A. B. Smedley, of Iowa State Grange, now lecturer of the National Grange, it is expected will visit California and Oregon during the ensuing season. His able and standard work on "Grange Jurisprudence and Co-operation," has preceded him to some extent in this jurisdiction. We are confident that he will meet with such cordiality on this coast as to make his visit pleasant to himself, beneficial to the Order, and a wise dispensation of the National Grange.

In Memoriam.

The following action has been taken by Suisun Valley Grange:

WHEREAS, It hath pleased Almighty God, in his mysterious Providence, to remove from our midst by death, our beloved brother, THOMAS B. TURNER, a worthy member of Suisun Valley Grange, P. of H., and while we recognize the wisdom of Him who doeth all things well, we can but mourn the loss of our departed brother.

Resolved, That it is with sorrow, inexpresaible by words, we have parted with our dear friend and brother.

Resolved, That by his death society haa lost a bright ornament, a useful member, and the Grange a true friend.

Resolved, That while we deplore the loss of one so dear, therefore let us cherish his memory here below, that we may, like him, have our work done, that when we are called hence we may be found worthy of admittance into our Father's Kingdom above, where sickness and parting shall be no more.

Resolved, That we tender to the bereaved parents, relatives and friends, our heartfelt aympathy and condolence in their great affliction.

Resolved, That these resolutions be spread upon the minutes of this meeting, and a copy be furnished the Solano *Republican* and the RURAL PRESS for publication.—[J. M. Jones, Chairman Committee.

At a meeting of Santa Cruz Grange, No. 68, January 15th, 1876, the following were unanimously adopted:

WHEREAS, It has pleased the Grand Master of the Universe, in His wisdom, to strike from our roll of membership, by death, our much beloved brother and very esteemed Patron, JAMES H. ARCHIBALD, a native of Scotland, and a pioneer resident of Scott Creek valley, Santa Cruz county; Therefore,

Resolved, That in the death of Brother ARCHIBALD, our Grange has lost one of its most earnest and efficient members; the community a thorough farmer, a good neighbor, a patriotic citizen, and an upright and honorable man; his family an affectionate and devoted husband.

Resolved, That we extend to his wife (our sister,) our heartfelt sympathy in her sad bereavement, and condole with her.

Resolved, That a copy of these resolutions be spread in full upon the minutes of this Grange, and the Secretary be directed to send a copy of them to the family of the deceased, over the seal of the Grange, and also to the San Francisco RURAL PRESS, and the Santa Cruz *Sentinel* for publication.—[Committee: B. P. Kooser, J. W. Morgan, B. Pilkington.

We receive the following from the Secretary of Franklin Grange:

Died, near Franklin, Cal., February 23d, 1876, in his 26th year, RADFORD M. DANIELS. Radford was the light and life of the home and social circle. His tall form and manly face will long be missed from the Grange, of which he was an esteemed member and officer. Until within a few months he was the personification of health and genial spirits. May the Great Master above, whose providences are hid in mystery, bind up the broken hearts of the afflicted household and cause them, out of the midst of their woe, to exclaim, "Though He slay me yet will I trust Him."

We'll miss thee, our comrade, and fondly we'll speak
Thy goodness and kindness, with tear-moistened cheek;
And when we shall gather, who sadly remain,
Thy mem'ry shall bloom in its freshness again.

The following resolutions were adopted by Ben Lomond Grange, No 170, Santa Cruz, Cal., at a special meeting held on the 9th day of March, 1876, in memory of LOUIS WEITZEL, an able and well beloved brother of our Grange.

WHEREAS, The Divine Master has seen fit to remove our beloved Brother, LOUIS WEITZEL, from our midst, to a home not made with hands, eternal in the heavens, therefore, be it

Resolved, That in the death of Brother WEITZEL, our Grange has lost a true hearted and active member, and the community a good citizen.

Resolved, That we, as a band of devoted brothers and sisters, extend our deepest sympathy to his afflicted children, and regret very much they were not here to join with us at the last ceremony.

Resolved, That our charter be draped in mourning for 30 days, that these resolutions be placed upon our minutes and a copy sent to his children, the RURAL PRESS and the Santa Cruz *Sentinel*.—[Committee: John Burns, Charlos Craghill, Fritz Quistorf,

E. V. Jones, Secretary, sends us the following resolutions adopted by Pomo Grange, No. 216, in respect to the memory of Sisters KEZIAH DASHIEL and LAVINIA GROVER, who died on the 10th and 18th of February. The preamble pays a tribute to the worthy character of the departed sisters. The resolutions are as follows:

Resolved, That in the death of our sisters we acknowledge our individual loss, and tender to the bereaved family our deepest sympathy in this their heart-rending affliction;

Resolved, That in the resolution of sympatby, tendered by our Sister Grange in Ukiah, we gratefully recognize the influence of Grange relations in quickening a desire to aid in bearing each other's burdens. and that said resolution be sent with ours to the RURAL PRESS for publication.—[Committee: B. Pemberton, Mrs. Emma Madden, Geo. B. Nichols.

Ukiah Grange adopted resolution of heartfelt sympathy with Brothers Dashiel and Grover and Pomo Grange in their affliction.

The following resolutions were adopted by Florin Grange, No. 130, Florin, Sacramento county, Dec. 25th:

WHEREAS, Our respected sister, CELIA TAYLOR, passed over the shining waters of the river of life, to the land of the blest, Nov. 4th, 1875, therefore be it

Resolved, That we gratefully recognize those characteristics of life and conduct which commended our risen sister to the favorable judgment of her associates, and which entitle her memory to permanent recognition in the proceedings of this Grange, now that she has been removed.

Resolved, That we tender to her earthly partner and relatives our deepest sympathy, and with them indulge all the comforting hopes which such a life must inspire.

Resolved, That the charter of this Grange be draped, and the members wear the usual mark of respect for 30 days. That a copy of these resolutions be forwarded to her lonesome partner, that they be spread on the minuntes of the Grange, and that copies be forwarded to the PACIFIC RURAL PRESS and the *Sacramento valley Agriculturist* for publication.—[Committee: J. T. Amos, Wm. Scholefield, Mary Jane Castle.

The following resolutions were adopted by the Point of Timber Grange, No, 14. at a regular meeting, March 4th, 1876:

Resolved, That in the death of Sister EUGENIA CARY we have lost an esteemed member, and we extend the heartfelt sympathy of this Grange to the bereaved husband and relatives of deceased, and as a token of respect wear the usual badge of mourning at our meetings for thirty days.

Resolved, That a copy be sent to relatives of deceased and to the RURAL PRESS.—[Committee: Geo. W. T. Carter, L. J. Willis, A. Richardson.

The Grange took charge of the funeral ceremonies, and our deceased sister was interred according to the beautiful ritual of our Order.

At the regular meeting of Nicasio Grange, No. 155, the following resolutions were unanimously adopted:

WHEREAS, The Divine Master above has seen fit to remove by death our brother, E. W. BULL, from our midst to his eternal home in heaven,

Resolved, That in the death of Brother BULL this Grange has lost one of its respected charter members, and his family a true son and brother.

Resolved, That as a band of devoted brothers and sisters, we extend our deepest sympathy to his afflicted family in this their time of bereavement.

Resolved, That his wife have the kind sympathy of every member of this Grange.

Resolved, That our charter be draped in mourning for thirty days, and these resolutions be placed on our minutes, and a copy sent to his wife, our sister, Jennie Bull, one copy to the Marin *Journal* and one to the RURAL PRESS for publication.—[Committee: H. F. Taft, D. W. Taylor, J. R. Foulka.

AGRICULTURAL NOTES.

California.

CALAVERAS.

LOSSES.—*Citizen*, Mar. 11: We hear of serious loss of lambs resulting from the long continued rains of the past month. Cattle in poor condition are also suffering, and stock-raisers are losing more or less of their herds. The grass is well up, but wet weather has prevented its being of much service to stock.

COLUSA.

CROP DROWNED OUT.—*Sun*, Mar. 11: The recent overflow of the river has drowned out several thousand acres of grain. There had been a large area sown between Colusa and Sycamore slough and that basin has now been filled twice, and the water yesterday was standing over a great deal of it. We have had more water this winter than has come down the valley since 1867-8.

LOS ANGELES.

HOGGING THE BARLEY.—*Gazette*, Mar. 4: This is beautiful weather, and the vegetation is responding to its favorable influences by a flourishing growth. This will indeed be a year of plenty as regards the luxuriance of crops. We wish we could say as regards the price of grain also; but many think far otherwise. In view of this probability, would it not be well for our barley raisers to make their plans to have their barley harvested by hogs, and their crop thus converted into bacon? We were told a day or two ago by a practical farmer that by doing this he could realize a net profit of $100 per acre on his grain fields.

THE APIARY FOR MARCH.—*Herald*, Mar. 11: Now is the time when the condition of every colony should be thoroughly understood by the bee-keeper,—especially so in the apiaries in the mountains where, we are informed, the bees are commencing work. In the valleys it was attended to by the careful bee-keeper early in last month. If any are queenless, they should be united with weak colonies, or if drones are making their appearance, comb containing young broods and eggs may be given them, that they may rear a queen. If weak, strengthen them by interchanging places with a strong colony about the middle of the day, when the bees are out at work on the flowers. Do not break or waste the surplus combs, if any; you will need them in swarming time for the new swarms that you may have to make. When you extract them they may be preserved from the ravages of the moth by fumigating with brimstone. Remove the litter and dead bees that may have accumulated on the bottom of the hive; straighten the crooked combs by pressing them in proper shape or trimming with a sharp knife as the case may require, then place each between two straight combs. Be careful about tempting robbers by leaving refuse honey about the hive. Should a raid be made by robbers on a hive close the entrance so that not more than one or two bees can have egress at a time. This will enable them the better to guard against the invaders.

A COLD BELT.—EDITORS PRESS: We are having heavy frost and cold nights with ice, and the outlook for fruit is rather gloomy at present. The mountains north of us are covered low down with snow and look somewhat like New Hampshire.—[S. R.

MARIN.

GOOD.—*Argus*, Mar. 11: O. Hubbel, whose farm is located near Tomales, is planting gum trees on both sides of the road in front of his farm, a distance of a half a mile. W. D. Freeman is also engaged in the same commendable enterprise.

MERCED.

ONE OF THE OLD SORT.—*Express*, Mar. 11: On the 4th instant George Michael, who lives on Hon. J. M. Montgomery's ranch near Snelling, while out looking for hogs, shot and killed a wild barrow which weighed over 300 lbs, and the tusks of which, broken off at the gnms, measured eight inches.

MENDOCINO.

ROADS AND BRIDGES.—*Dispatch*: Senator McGarvey has introduced a bill relating to roads and bridges in Mendocino county. It provides for the completion of the road from Booneville to Point Arena; also authorizes the Board of Supervisors to purchase the Noyo, Big river, Albion and Navarro bridges, and to construct a bridge across Russian river at such a place as the Board shall deem most suitable. Also that, if the Commissioners appointed to locate a road from Block's store, in Humboldt county, shall select the route to the county line in the direction of Long valley, then in that event, and then only, shall the Supervisors construct a road from Ten Mile valley to meet such road at the northern line of Mendocino county. The bill provides for the issue of county bonds, payable in 20 years, to pay for these various improvements.

MONTEREY.

WIDE SEEDING.—*Argus*: Over 50,000 acres of land have been seeded to grain, principally wheat, from Chualar to Soledad, and the prospects of a heavy yield were never more encouraging. The Salinas City *Index* estimates that the yield of cereals for the county, the present year, will not be less than 120,000 tons, which, at $1.25 per cental, would represent a valne of $3,000,000.

NEVADA.

MOHAIR SOCKS.—*Tidings*, Mar. 11: A breeder of Angora goats who has an industrious wife and daughters and has not yet wool enough to pay to ship it to market, works it up at home, into socks. He says; These socks sell from 75 cents to $1.00 a pair, when you can get sheep's wool for three bits to four bits for a pair made in the same way. One pair of mohair socks will last as long as four pairs of wool. They are more elastic and the fiber is so long that the yarn is as strong as hemp twiue, and very soft and white.

FRUIT.—*Transcript*, Mar. 10: Everything looks favorable now for an abundant fruit yield. The late storms have had the effect to keep the budding of trees back, and it is probable that there will be no late frosts to destroy them. Last year trees had a rost, and will be in condition this year to bear bountifully.

SAN DIEGO.

NOTES FROM VALLEY P. O.—EDITORS PRESS: Uncle Sam has given us a postoffice, but we have to carry our own mail. We live in peace and harmony, and generally have plenty of everything bnt news. Bear valley is situated 40 miles northeast of San Diego City, and is one of the most fertile valleys in San Diego county, and I dare say in the State. The soil and climate can't be beaten, and the oldest settlers say that crops never fail in this particnlar locality. The present prospects for crops are very flattering, the climate is very fine and healthy. The themometer seldom rises above 95 degrees. Doctors have no practice here, except in the bee business, which is progressing finely, and bee men are much pleased with the prospects for good honey season. We expect if the season continues as favorable as the commencement, to have more than double the amount of last year, and of a much better quality.—[* * *.

EFFORT FOR WIDER HONEY MARKET.—*World*, Mar. 4: Our bee men should get together, as appointed some time ago. It is their interest to do so, and really their interests may suffer if they do not in time look to it. Of course our remarks have reference to the management and sale of honey, and not to the crop in prospect. Effort to get a market for the honey is what seems to be most needed at this time. At present there are a number of our honey producers whose crops are still on the market at San Francisco or elsewhere unsold, and nothing doing in an organized or associational way, to create a market for it, or for the incoming crop. The price for honey amounts to nothing so long as it is nominal and inactive; but once the article is known and introduced into other places, it will be better and active. Activity is wanted.

SAN JOAQUIN.

FOR THE SHEARING.—*Argus*, Mar. 11: Something less than a thousand sheep shearers left town the other day, bound for the various wool camps of the county. If the present fine weather continues, the sheep shearing business will be in full blast in a few days.

SANTA BARBARA.

TAKING TO THE HILLS.—Lompoc *Record*, Feb. 26: Our farmers, not content with farming the valley land, have turned their teams towards the summits of the hills, and in some instances have sown to grain hundreds of acres; several thousand acres of hill land will be under cultivation this year.

SISKIYOU.

DAIRY RANCHES COVERED.—*Union*, Mar. 4: It will be late this season before the dairymen will be able to get to their summer ranches, as in most of the valleys in which these ranches are located there has been a large amount of snow fell. There is from five to six feet of snow in Squaw valley at present. When they do get in, however, the grass will be splendid and they can hardly help making excellent butter.

SOLANO.

WEATHER AND CROPS.—EDITORS PRESS:—We have had a great deal of rain for some time past, and the Montezuma hills seem to have as much water as they can well drink in, and the water now runs off in rivulets into the low lands, which are becoming pretty much all flooded. The grain on the hills is looking splendidly. Some of it is almost ready to head out, and the present prospect bids fair to produce a heavy yield. I think this last storm we have had is a true verification of the goose-bone prophecy. There have been three or four appointments for a plowing match at Rio Vista, but each time it have rained, and the postponement is now indefinite.—[A. DOZIER, Rio Vista.

SONOMA.

POINTS ON LATE SOWING.—*Democrat*, Mar. 11: Theodore Stately gives us his views on the crop prospects, which we think will prove interesting, as Mr. Staloy is classed among the best farmers in Sonoma county. The ground is so thoroughly saturated with water that the prospect is better on adobe land than if the crop had been sown earlier. I have had experience in sowing grain after such heavy and continuous rains as we have had this season. In the spring of 1873 I sowed my first grain on the 18th day of March and had excellent crops. I harvested 25 bushels to the acre, my neighbor, C. P. Teagne, 36 bushels to the acre. All the grain sown on low land that season did well. I think it safe to sow to the 15th of April. In the spring of 1874 I sowed 25 acres between the 12th and 15th of April and harvested 36 bushels to the acre. I plowed well six inches deep, sowed 100 pounds to the acre, harrowed, cross harrowed and rolled the land with a heavy roller. I use the roller to pack the ground so that it will retain moisture; in early sowu grain the roller is not necessary. I have had experience with the roller. In 1874 I sowed a field adjoining a neighbor who had land of the same quality. I used the roller, he used a clod masher. The grain was sown about the same time and otherwise treated alike. I raised 11 bushels to the acre more than he did. With light lands not yet seeded I would summer fallow them by all means. With adobe land not sown before the 15th of April I would put it in corn. Corn pays about as well as wheat, without exhausting the land, and leaves it in as good condition as if summer fallowed. It requires no outlay of money for harvest, employs time which otherwise would be wasted. I think it would be better if more corn was raised every year.

STANISLAUS.

EARLY GRAIN.—*News*, Mar 10: We have been informed that Mr. James Davison, residing a few miles from town, has a barley field of 100 acres already heading out. In hight the grain is 18 or 20 inches, of strong stalk, excellent stand, and bids fair to produce well. If the weather should turn off warm it would undoubtedly ripen and be ready for the harvester by the first of May.

SUTTER.

MEETING OF THE FARMERS' CO-OPERATIVE UNION.—*Banner*, Mar. 9: The regular annnal meeting of the above named stockholders was held March 4th. The Secretary, B. F. Walton, read a report setting forth the financial condition of the Union. George Ohleyer, business agent, then read a report showing the amonnt of business transacted during the last two seasons to date—the present season not expiring until June 1st, 1876—showing a gratifying increase in business, which proved satisfactory to the stockholders. On motion of H. C. Jones an indorsement of the acts of the directors was unanimously carried. The election of directors being next in order, Mr. Jones nominated the old Board. No other nominations being made, on motion of Joseph Hardy nominations closed. A ballot being had, the old Board—consisting of S. E. Wilson, B. F. Walton, Henry Elmer, Francis Hamlin, A. L. Chandler, George Ohleyer and George Carpenter—were declared duly elected directors for the ensuing year by 230 votes.

GRAIN DOWN.—We are informed that a good deal of the early grain in the vicinity of the Butte mountains, which had attained an average hight of about 18 inches, was laid low by the recent high wind which prevailed on Monday and Monday night.

YUBA.

ANTI-DEBRIS MEETING AT WHEATLAND.—*Free Press*: Dr. Durst, the Chairman of the previous meeting, called the meeting to order, when the minutes of the meeting held on January 22d were read and approved. Mr. J. H. Keys, Chairman of the Committee appointed to collect necessary information, reported that he had sought legal advice from George Cadwallader, Esq., of Sacramento, and that the gentleman had prepared a written opinion, which Mr. Keys then proceeded to read. In this opinion, Mr. Cadwallader, after carefully reviewing the different points under consideration, firmly expressed himself in the belief that land owners who had suffered loss from the overflow and destruction of their lands by accumulation of sedimentary deposits in Bear river and its tributaries from the operations of hydraulic mining, may not only sue for and recover damages, but that hydraulic miners on the water courses above may either be restrained from future operations or be compelled to dispose of their mining debris in such a manner as to cause no further damage. At the close of the reading of the opinion, remarks were made by Mr. Webster and Mr. Irwin, who are both familiar with the magnitude of hydraulic operations at Dutch Flat, Little York, Red Dog, You Bet, Chalk Bluffs, etc., where foreign waters were used to a large extont, and then discharged into Bear river. Remarks were also made by Mr. Keys, Mr. Jasper and others, when the meeting adjourned, subject to call of Mr. Keys, Chairman of the Finance and Investigating Committees.

Oregon.

THE WHEAT CROP.—*Oregonian*. Mar. 4: The few days of pleasant weather experienced recently, it is reported, have been most diligently improved in the Willamette valley by the farmers, who began to fear an unusually short wheat crop next harvest, there having been but little weather which would allow of seeding since the harvest of 1875. Three weeks ago some good judges of such things, estimated that but little more than one-fourth the acreage of last year had been sowed up to the 1st of February, and the same parties claimed that without a very favorable spring the State would have no wheat at all to ship next harvest year. While we think these estimates were made from a desponding standpoint of the situation, we yet incline to the belief that the surplus in Oregon will fall far below what it was the current shipping season. The present indications are that a great deal of planting will be done this spring, and should the season be a good one for the spring sown grain, the surplus will probably be equal to that of 1874.

The Moneyless Man.

Is there no place on the face of earth
Where charity dwelleth, where virtus has birth?
Where bosoms in kindness and mercy will heave,
And the poor and the wretched shall ask and receive?
Is there no place on earth where a knock from the poor
Will bring a kind angel to open the door?
Ah! search the wids world wherever you can,
Thers is no open door for ths moneyless man.

Go look in the hall whers the chandelier light
Drives off with its splendor ths darkness of night;
Where the rich hanging velvet, in shadowy fold,
Sweeps graceful y down, with its trimmings of gold;
And mirrors of silver take up and renew
In long lighted vistas the 'wildering view;
Go there in your patches, and find, if you can,
A welcoming smile for ths moneyless man.

Go look in your church of the cloud-reaching spire,
Which gives back to the sun his same look of fire,
Where the arches and columns are gorgeous within,
And the walls seem as pure as a soul without sin;
Go down the long aisle—see the rich and the great,
In ths pomp and the prids of their worldly estate;
Walk down in your patches, and find, if you can,
Who opens a pew for a moneyless man.

Go to your judges in dark, flowing gown,
With the scales wherein law weigheth quietly down;
Where he frowns on the weak and smiles on the strong,
And punishes right while he justifies wrong:
Where jnrors their lips on the Bible have laid,
To rendsr a verdict they've alrsady made;
Go there in ths court room, and find, if you can,
Any law for the cass of a monsyless man.

Go look in ths banks, whers Mammon has told,
His hundreds and thousands of silver and gold;
Where, safe from the hands of the starving and poor;
Lies pile upon pile of ths glittering ore;
Walk up to ths counter—ah, there you may stay,
Till your limbs grow old and your hair turns grsy,
And you'll find at the bank not one of the clan
With money to lend to a moneyless man.

Then go to your hovel—no raven has fed
The wifs who has suffered so long for her bread;
Kneel down by her pallet and kiss the death frost
From the lips of the angel your poverty has lost—
Then turn in your agony upward to God,
And bless, whils it smites you, the chastening rod:
And you'll find at the end of your life's little span,
Thers's a welcome above for the moneyless man.

—*Henry Stanton.*

Emancipated.

[Written for the PRESS by CARRIE A. COLBY.]

"To what evil thing has 'Sister C. A. C.' been in bondage?" I fancy somebody saying, and if it happens to be a body who knows the "lay of the land" hereabouts, he will be likely to guess that it is the water blockade, which three weeks since cut off communication with the outside world, prevented our attending the Grange, kept back our mails and threw us entirely upon our own resources. We could go nowhere and nobody could come to us. These were facts that compelled a deeper conviction as we saw creeks and sloughs fill, and the Sacramento river widen, until only a few landmarks remained and we were forced to accept the situation with the best grace we could summon for the occasion. If this sounds disconsolate, it isn't because we felt so, for never dawned a more glorious sun than that of the Wednesday after the storm, when the little ones embarked in a rowboat from the kitchen porch manned by our trusted Celestial, and went down through the fields dotted with soft, green islands, shouting and waving in high feather, while the "little Granger" crowed and echoed back their glee from his carriage on the sunny south porch. It was a day for bees and butterflies and babies to make merry in, and will long be remembered by our little folks as the time when the water came into the "sloo," and they sailed mimic boats from the playroom windows. So we didn't worry, although we couldn't get the RURAL PRESS and didn't know but our good spouse was sitting in a snowbank (en route for Washington) having his rations transported to him on a hand-sled, but worked at our precious old scrap-book for a whole day, and superintended a medley picture made by our little three-year-old by pasting newspaper pictures upon a thin, nicely planed board, which now adorns the playroom walls, thanks to our good Auntie, who bored some holes and put in a string.

We knew, too, that we had plenty of company in being water-bound, but hardly imagined the worst of the situation upon the west side, never having heard of the water standing four or five feet in the streets of Princeton, and the country flooded as far as the eye could reach with the aid of a glass.

It occurs to us that levees recently built upon the east side of the river, nearly opposite that section, must have had something to do with the high water around Princeton. We had had no such experience as this, ourselves, for four years, but floods for us and our neighbors in Colusa county mean fertile fields, and surely it must be true for once, of those dry lands, that "the meadows have drunk enough."

I neglected to hint at the beginning, for the benefit of those who tried to guess my conundrum implied in the first line, that I had suffered in common with civilized womanhood the world over.

So you see it isn't the flood, for seas of mud immediately put us under siege, and we are already upon the eve of another deluge, twenty feet of snow having reported upon the summit of the Sierras, and the rain still descending. An inch of snow fell on Sunday, the 27th instant, making us fear for our bursting fruit blossoms, but as it rapidly disappeared before a warmer temperature, we hope, at least, for the best. But to give a little more time for those to guess my riddle, who don't "give it up" yet, I will make this an opportunity to say that I have always maintained that every person living in our river valleys should possess three accomplishments, namely, be able to row a boat, swim and walk on stilts. Many of us know what it is to waken some morning and find ourselves upon an island, baby's cow upon another and the stable containing the family horse on still another.

So I include the sisters in the list of those needing this knowledge, for although they may not habitually do the "chores," occasions may arise when the woman finds herself the "best man on the place," as actually happened on this very ranch ten years ago, when the water was higher by many feet than has been known since, or ever before in fact, within the memory of the "oldest inhabitant." The water rose, flooding the living room, washing the fire from the fireplace, while a sick husband and two small children took refuge upon a bed—remaining there for two days and nights, while the wife and mother made the most of a stove, (partly under water) in the kitchen, rubbed her husband back to life with the few appliances at hand, (he had become chilled while wading to the waist after stock), cheered and provided food for the children, and as a sequel, saw not the face of a woman for three long months.

The country then seemed a wilderness, indeed; but now that the cars whistle past twice a day, and good roads and a ferry boat permit us to go any whither, we seem to have taken a long stride toward civilization, and escaped many of the disabilities with which we were burdened ten years ago.

I have written the above because I could without much twisting of the text, and because it is always in order to discuss the weather; but more than anything else, to sugar-coat the pill of my real subject—Dress Reform Garments; so, to make a long story short, I will out with it, and say that I am the happy owner of two new dress reform suits, and am, this moment, blessing the clever originator, Mrs. C. C. Curtis, of San Francisco, and if anybody will procure patterns, sit down and make one suit, put it on and not spoil the effect by tight corsets and heavy skirts, I will guarantee that she will trip about, mentally exclaiming, at least, as I did, "Emancipated!" "Eureka!" or anything else that will express the sense of lightness and comfort that, to me, was an altogether new and grateful experience.

I had before worn some half way hygienic garments, but here were three in one, waist, chemise and drawers, cut to measure, neat fitting and altogether elegant, such as the most fastidious might not despise. A full suit of flannel first covers the body from neck to heels, and over it is a cotton garment that perfectly fulfills all the requirements of the three before named.

This will be appreciated, first, in the wearing, being quickly put on, and oh, so comfortable; next, in the laundry, whether at home or away in the hands of the "heathen Chinee," and lastly in making; for although tucks, ruffles and puffs may be added, the design of the garment doesn't invite them.

I remember that "Mary Mountain" made certain strictures in the matter of having this article of dress in one piece, but the objection doesn't obtain here, because, good friends, (sub rosa), we don't have *fleas* in Butte county.

And now having taken myself out of the way as a stumbling block to my neighbors and friends by my good example, having tested the patterns and experienced, in part, the benefit arising from them, I am free to maintain that every woman who reads this is not guiltless if she neglects to avail herself of the opportunity now afforded her of obtaining cheap and excellent patterns of healthful undergarments (unless she already wears those equally good), and thus saves to herself and friends the remnant of health that the present style of underwear has left to her.

Mrs. Curtis recommends that the outside garment be made of Canton flannel or twilled cotton, so that it may the better pay for making, and as I stitched "seam, gusset and band," I found myself wondering if it would'nt be in one respect at least like the "one-hoss shay," not indeed that it was likely to last "a hundred years to a day," but the inventor had made it "so like in every part,"

"There wasn't a chance for a stitch to start,"

So that after good old-fashioned wear it will fall to pieces in a heap or mound.

"All at once and nothing first,
Just as bubbles do when they burst."

I remembered that a sister inquired during the Matrons' meeting at the State Grange, as we pored over the hygienic dolls' garments, (which were those I have been describing in miniature) what we should do with our present stock of underwear. I didn't quite know then, but having found out what I shall do with mine, I give you the benefit of my wisdom. My very best I shall preserve to be exhibited at the Centennial exhibition, 1976, as a relic of the dark ages, which they almost begin to seem already; the rest I shall keep for emergencies, and by all means never make any more.

I must not forget that I wanted especially to say, that perhaps the reason many have not already adopted this new fashioned underwear, is because they were unable to learn where patterns could be obtained.

It would be funny to relate my experience on this score, and if I hadn't thereby realized that others might profit by it, I should hardly have written this sketch at all.

In the varied and absorbing matters that drew our attention at the State Grange, I failed to secure the address of Mrs. Curtis, consequently when I got settled down at home again, and desired to use the patterns I had admired so much, I was obliged to first lay Sister Dewey under contribution for the needed information. Sister Carr was next interrogated as being headquarters, in a certain sense—being the exhibitor of the doll at the Grange. There being several Mrs. Curtises, the right one was at length found, when it turned out that a certain Mrs. Dr. C. had charge of the patterns; but on applying to her, we were once more referred back to Mrs. Curtis aforesaid, for patterns of the required size.

It did seem a good deal like "red tape," didn't it? or Dickens' "How *not* to do it," but it really wasn't, at all; and at last the coveted package came by mail, with a note from the inventor saying she had been obliged to project the patterns upon an entirely new scale. Could it be that I had made a mistake in one of the measurements? Yes, surely, in giving the hight in inches I had represented it to be about eight feet. Here was a figure to make the gravest of our ancestors smile. Eight feet tall and 24 inches around the waist! We had a good laugh as the ridiculous picture appeared and reappeared before our excited imagination, and I wondered if Mrs. C. didn't think some of the children of Anak had become "materialized" up here in Butte county. So here follows the kernel of the nut that has required so much cracking, to wit: the full address of Mrs. Curtis and measursements required in sending for patterns:

"Mrs. C. C. Curtis & Co., No. 606 Montgomery street, San Francisco, room 31.

"The first measurement should be from the highest point on the shoulder seam to just below the knee cap; second, the size around the bust; third, around the waist; fourth, length of waist under the arm; and fifth, length of drawers on the inside seam to just below the knee." Price of pattern for flannel, 25 cents; for cotton ditto, 35 cents, and 15 cents postage if sent by mail.

Now good friends, lovers of humanity and reform, won't you all give these patterns a fair trial and test the virtues of a "sure enough" dress-reform garment, being left without excuse for not so doing unless you don't pay for and read the RURAL PRESS, and then we say the more'a the pity.

Nord, Butte Co., Cal., Feb. 29th, 1876.

WHO KNOWS?—Who knows where pins and needles go—where all the buttons stray? Who knows where all the pennies go that somehow get away? Who knows how all the china breaks that wasn't touched at all? How baby gets so black a bruise, yet never gets a fall? Who knows whence all the fashions come, and whence they disappear, why one bright month should make a fright of what was "such a dear?" Who knows how little bills can swell to such prodigious size? Who knows, indeed, beneath his very eyes? Who knows just where her husband goes when business keeps him out? Who knows when best to wear a smile, and when to wear a pout? Who knows the time to face the fact that she's no longer young? Who knows how best to speak her mind, and how to hold her tongue? Who knows the most convenient day to bring a friend to dine? Who knows the half of what he spends on clubs, cigars and wine? Who knows a bonnet cannot last a woman half her life? Who knows the woman is the same when sweetheart turns to wife? Who knows why all the pretty girls are often last to go? How all the ugly women wed who never had a beau? Why small men fancy wives so large, and large men fancy small? Who knows, in fact, how half the world was ever matched at all?

HAPPY EVERY DAY.—Sydney Smith cut the following from a newspaper, and preserved it for himself: When you arise in the morning, form a resolution to make the day a happy one to a fellow creature. It is easily done; a left-off garment to the man who needs; a kind word to the sorrowful; an expression to the striving,—trifles in themselves as light as air,—will do at least for the 24 hours. And if you are old, rest assured it will send you gently and happily down the stream of time to eternity. By the most simple arithmetical sum, look at the result. If you send one person happily through the day, that is 365 during the course of a year. And suppose you live 40 years only after you commence that course of medicine, you have made 14,600 persons happy, at all events for a time.

KEEP TO ONE THING.—We earnestly entreat every young man after he has chosen his vocation to stick to it. Don't leave it because hard blows are to be struck, or disagreeable work performed. Those who have worked their way up to wealth and usefulness, do not belong to the shiftless and unstable class, but may be reckoned among such as took off their coats, rolled up their sleeves, conquered their prejudice against labor, and manfully bore the heat and burden of the day.

Birds as Ornaments for Bonnets.

Do ladies know when they purchase their bonnets—do they realize that the birds, with which they are bedecked, were once alive—were once the loveable little creatures that flit from shrub to tree, enlivening the morning with their joyous, inspiring song, and investing nature with one of her freshest, most captivating smiles? If the ladies who purchase bird-bedecked bonnets knew that they are the indirect cause of a slaughter of these innocents that threatens "the annihilation of our favorite little songsters"—would not the savage fashion fall into richly-merited disgrace? Could they see these happy, harmless beings hunted, as we have seen them, by a pack of ronghscuff boys and men that skulk about the surroundings of cemeteries, parks, and even garden walls, to entrap or to shoot them—would not the sight of their poor little bodies, arranged among the artificial flowers of the hat in imitation of their graceful movements as in life, inspire them to frown upon a fashion so conceived in cruelty—so suggestive of cruelty to the young—so hateful to the tenderness with which womankind are wont to cherish these bright creatures?

Bird catching for the milliner is well established and profitable business, and our readers have only to ride out to the suburbs of our cities in early spring to ascertain something of its magnitude. In the first copse, or grove, they will find trap-cages set here and there, each with a singing bird within to attract those which happen near. Scattered about are sticks, three or four feet in hight, besmeared with bird-lime. Concealed in thickets or behind trees are the bird-catchers, ready to shoot those wary birds that are likely to escape the vicious sticks and the trap-cages. The worst of it is, the little birds are killed so as not to derange or soil their brilliant feathers. If shot, the bird-catcher aims only to cripple, not to kill—since this would, in many instances, cause a wound that would greatly mar their beauty and lessen their money value.

Thus, not to speak of their value to the farm and garden as insect destroyers, our ornamental birds, as we may call them—ornaments to lawn, field and woods as children are ornaments to the household—are being destroyed for the ornamentation of bonnets!

Perhaps all this is more sentimental than reasonable. Birds are killed to eat, why not to adorn bonnets? We prefer not to discuss the question. To any lady that would raise it, we would kindly suggest that she breed her own humming and canary birds. Then, while learning something of bird culture and while enjoying for a period their company, she might kill them as they were needed, and the community at large, no longer sufferers, would hold their tongues.—*Moore's Rural.*

Early Rising.

Mothers, teach your children to rise early and engage in some household duties before breakfast. It will give them a healthy appetite for the meal and beget in them a habit of early rising, which will abide with them in after years. I always made it a rule, even when my children were quite small, to waken them up for breakfast, or at least by six or seven o'clock. Of course the usual amount of rest and all other things were considered. Many mothers allow their children to form the habit of sleeping till eight or nine o'clock, and then they have no appetite and the meal will be hurried over and they sent off to school with aching heads and dull brains, not getting fairly awake till the middle of the day. Such scholars are always behind in their studies.

This mode of treatment with children, besides injuring their bodily health, retards their mental progress and brings them up with indolent habits. Another great consideration connected with the health and early habits of children is to have them eat a light and early supper and retire at least two hours before grown folks. Children growing should have plenty of sleep, and by going to bed early will naturally feel like getting up early. In fact, the old proverb of "Early to bed and early to rise, will make a man both healthy and wise," is as applicable to children as older ones, and should be strictly observed if we expect to raise our children in a healthy and intelligent manner.—*Western Rural.*

DRESS FOUR CENTURIES AGO.—In the olden times, washing-days came few and far between, else there is no reliance in history. Four centuries ago people didn't wear clothing which needed washing; or if they did the services of the dyer were oftener required than those of the laundress. In those days a linen shirt was a rarity, entitling its possessor to congratulations. None but the wealthy wore underclothing, which was of silk or velvet, neither of which washes well. Night dresses, as now used, they had no use for, as most of them generally slept without any garment of the kind. Anne Boleyn's night dresses are described as having been made of black satin and velvet, while Queen Elizabeth wore black velvet lined with fur. Queer people! These articles came to be called night veils after a while. Shirts too, were made of colored silks, as were also night-caps and kindred articles, which are now made of materials requiring at least weekly washings. Washerwomen must have stood a mighty slim chance for a livelihood in those quaint old days; but, probably, there weren't as many then as now.

Ballads.

The conditions under which our ancient ballad poetry arose are tolerably well understood. It helongs to a primitive state of society, in which the knowledge of letters was restricted to a select class, and tradition was the sole vehicle of history to the mass of the people; when mauners were ruder, law less reverenced, the passions more unbridled, the utterance of emotion more frank and less conventional than now. Though the writers cannot always be supposed cetemporary with the events they record, they uniformly address a sympathetic audience, whose standard of morality or sentiment, and level of culture, little, if at all, differ from those prevailing at the period to which their tradition refer. The Border minstrelry, for example, was obviously written for the children and grandchildren of the moss-troopers whose exploits it glorifies, a generation to whom appeals to a higher code or a purer taste than their ancestors accepted would have been wholly unintelligible. The general characteristics of the best specimens that remain to us, whether of the narrative and legendary ballad or of the lyrical and emotional ballad, are an unconscious simplicity of thought and language, a coarse but vivid realization of the scenes and delineation of the personages represented. They show few marks of artistic construction or ornament, beyoud a rudimentary sense of pictorial expression, and the occasional introduction of abrupt suatches of wild fancy. In those cases where a burden is added, it serves either to mark the leading motive of the theme, to suggest the musical accompaniment to which the piece was set, or that "rhythm of the feet" from which the composition first took its name. The impossibility of restoring the conditions under which this description of poetry arose does not oppose any obstacle to its successful cultivation in our own day, if the principle laid down be duly observed. To surrender the type would be a gratuitous waste of means, for of all narrative and lyrical forms it is the simplest and the most direct in its effects. The testimony borne to its potency by Sir Philip Sidney, by Addison, and the authority for whom Fletcher of Saltoun stood sponsor, would be unanimously endorsed to-dav. The varnish of our social conversationalism is, after all, extremely thin, and the most cultivated audience cannot listen to a plain story of heroism or of pathos without flushing cheeks aud brimming eyes. For enshrining the memory of any grandly heroic achievement, for giving utterance to any pure emotion, the ballad still remains the most appropriate vehicle.—*Contemporary Review.*

The Adornment of a Farmhouse.—I have read so many articles on the adornment of homes, and directions for so doing, that it seems an easy matter tastefully to furnish a house. It would seem as though one's hrother could not harbor any desire to exchange such pretty homes for a drinking saloon. Now I am a sincere admirer of nature and heauty in all their forms; though only a "country girl," I trust I have a keen appreciatiou of the good, the true, and the beautiful; but who can imagine the hungry void caused by the absence of those beautiful trifles which possess the power of contributing a deal of happiness to many temperaments. Perhaps these trifles cannot he obtained in consequnce of the perversity and whims of an old-fashioned man. I know of more than one home from which house-plants, birds, ferneries, aquarinms, and pretty useful articles that might be fashioned by the tasteful fingers of the daughters, are excluded as nuisances, and a waste of time and money. Many unframed pictures that lie in the house useless might be framed with little expense, and would adorn the harren walls. If the well-to-do farmer could only be brought to think so, money would not be thrown away in purchasing some pretty chintz, upholsterer's fringe, etc., which, with a small amount of ingenuity, would transform the solitary "spare room" into a tasteful sitting-room. This may seem a small matter to many who have never had like experience. I do not expect the sympathy of those who posses that wand of power, a full purse, and have but to wave the wand and their homes are furnished. Perhaps you may ask why I do not teach school, work out, or do something to turn a few honest pennies, and enable me to purchase the articles. A very easy question to answer. My father did not send me to school long enough for me to acquire a sufficient education to enable me to become a teacher, and as for working out I have all I can attend to in assisting my mother with the household affairs.

It is evident that a great change is now taking place in the minds of the people in regard to the importance of special instruction. The evident tendency of the Grange movement is in this direction. Farmers are heginning to read more, think more—and with this there will come an increasing demand for technical education. In the leading towns throughout the West, such as are located in the midst of rich agricultural districts, graded schools have become a necessity; and there is a manifest inclinatiou to have the principles of agricultural science taught in many of them. This is the true way to make farm life interesting, and this will beget a spirit of enterprise, so that the result will be highly beneficial, inasmuch as intelligent tillage will not only give us larger and hetter products, but the productive power of the land will also be proportionately increased. —*Coleman's Rural.*

Young Folks' Column.

Nell Van Tells the Children How Grace Found Amusement in Rainy Weather.

There was a child whose name was Grace, whose home was in a pleasant village. Kind parents had she and two young brothers, and their home with its beautiful garden was one to be coveted by boys and girls for miles around. You may ask if this child was not perfectly happy, but I grieve to say that though she had no positive unhappiness, excepting that caused by not having her own way upon all occasions, yet if her brother rode the pony when she wished to ride, no pen can describe the disorder which prevailed and turned this lovely home into a scene of strife and discord. When everything chanced to please Miss Grace, oh, then there was peace and harmony and the house seemed like Paradise.

Now, Grace was a most capable ch ld, usually able to accomplish whatever she planned to do, and it was this peculiar faculty of hers which won my admiratiou. Once, while her mamma was away on a visit, good Mrs. Brown came to stay with the children during her absence. It chanced to rain heavily for several days, and the little folks were compelled to remain within doors, which was a serious trial to the young things as well as to the kind lady. She found it a difficult task to amuse such active minds, and keep them from mischief and from quarrelling together. Her first endeavor was to find something for them to do besides playing with their toys. She brought out some old picture papers and set them to work cutting ont the pictures, which the boys liked exceedingly. Not so easily could she amuse the restless Grace. A blank book was found and the bottle of mucilage brought so that Grace might place the pictures upon the pages according to her fancy. Presently a thought struck her, and saying, "I know what I'll do," she ran to her room and brought a pencil and said, "Now I'm going to write a story about these pictures, may I, Mrs. Brown?" "Yes, indeed, child, I wish you would," for it was a great relief to find Grace so animated and enthusiastic about anything which was proper for her to do. Busily the little maiden sat thinking and arranging the pictures, then with her pencil printing her story, for she could not write very well and besides she wanted to make letters that her brothers might read. The hours flew by and the dinner hell sounded through the house just as she was finishing her story. I cannot give you the pictures, for that is not in my line, but here is the story which put Miss Grace in such good humor with herself and everybody else, so that Mrs. Brown had no more trouble with her during the rainy weather. She had discovered the child's talent for story telling, and from that time forth Grace was enticed to amuse the hoys by relating stories to them in the twilight as they sat together.

Grace's Story.

Here is a pretty cottage, half covered with vines; George and his little sister Lucy live in it with their mother, who makes butter to sell. Lucy feeds the chickens and hunts the eggs to sell with the butter, George cuts the wood and milks the cow, for children must help their mother when their father is gone.

Here is a ship at sea. It is their father's ship, for he is a sea captain. Here it is in a storm and it is over on one side, almost swallowed up by the big waves. George and Lucy don't know of their father's dauger as they sit at the fireside reading story hooks, for the nights are cool, and the mother is mending stockings and thinking of the heavy sea where her husband is being tossed about. How the shadows are thrown upon the wall by the firelight, and how comfortable the old cat looks on the hearth rug. The next day the sun shines and the children are out on the green tossing sun-flowers at each other. They seem to forget about the rain and storm which always make them sad. See, a man is coming up the road! He stops at the cottage door. There is a wagon, too, with some one lying down in the bottom, and a man driving. The mother comes to the door, and the men bring a body from the wagon to the cottage. It is George and Lucy's father, who has met with an accident during the storm which blew the vessel upon the rocks. The children stop their play and begin to cry. Here they are with their mother hy his hed-side. But he did not die, hut got well again, for here he sits by tho open door in the sun-light with a crutch heside him. He is watching Lucy call the young chickens to feed them. How happy she looks, and how glad they all are to have their dear father at home, now that he is getting well. How they tease him not to go away again. But when he is well again he begins to want to be off at sea. Here he is packing his trunk, getting ready to go. He gives the children some handsome shells and pearls he has found among his things, and they look pleased, but their mother seems sad.

Here he is bidding his wife and children good-bye. He kisses his wife and points upward, as if calling heaven to bless and protect them from all harm. See him hold his hat in his hand while his hair is flying in the wind, and Lucy clings to him crying, while George stands by looking sorry. With a "God bless you, good-bye," he is gone.

Good Health.

The Skin.

We desire to present a few brief and practical remarks upon this subject, without indulging in abstruse technicalities.

If as much, there is no structure of the physical body more widely distributed than the skin. It not only covers the external superfices of the form, but reflects inwardly at every orifice, and, creeping into every cavity, lines the whole internal physique. What are commonly known as membranes may, with equal scientific propriety, be recognized as forms and modifications of skin.

The skin is best known as endowed with secretive functions; therefore, we shall confine our present brief statement to matters illustrating the natural laws of secretion. Everywhere the skin sustains an adaptation to pouring forth some form of products for a wise and specific end. On the outer surface of the body it exudes perspiration, an oil for lubricating, and various effete matters from the armpits, toe-angles, etc.; in the nasal passages, throat and lungs, mucus; in the stomach, gastric juice; in the liver, bile; in the kidneys, urine; in various other localities, cardiac fluid, synovial fluid, pretonial fluid, etc.

Whoever regards his body wisely will consider the importance of maintaining a proper activity of all the dermal functions. Especially is this true in view of the reciprocal relations certain of these functions bear to each other. To illustrate, if the functions of the external skin are unduly suspended, the internal skin will try to make up the deficiency by overwork. The same is true in a reverse contemplation. This explains why "closing the pores of the skin" will be frequently followed by an increased discharge of mucus from the bowels, or diarrhœa, as well as the same from the cavities of the head and fauces, or catarrh, and a great many similar compensating effects are accounted for in like manner. Last summer we came in contact with a stranger, whose every outward aspect was indicative of the most scrupulous cleanliness and tidiness. Yet the very presence of the individual revealed a most intolerable stench. We doubt if the person most interested in it was aware of it. It proceeded from an undue secretion of the glands of the armpits. We have not a particle of doubt that the circumstance was owing to some other defective secretion in this way sought to be compensated.

Cases like the one we have related are very frequent and often exhibit more extended effects. The outer skin often secretes or perspires too much, because the inner skin secretes too little. In such a case, bathing and washing will accomplish but little in the way of relief. One may thus remove a quantity of detergent matter, only to have more supplied in its place. However, persons afflicted in this way will be less liable to direct injury from bathing than those in whom the predominance of force is exerted inwardly upon the mucus membranes, inciting most likely some form of chronic catarrh. Such are shivering and cold, and look with horror upon the face of water. If they persist in bathing they are liable to serious injury unless they use water only of an agreeable temperature, avoiding drafts of air both during and after the process. When experience shows weakness inclined to follow bathing, it should he practiced with great care, followed by a season of ease and repose.

As a rule bathing is good for everybody. Excepting persons engaged in dirty employments, once a week is sufficient for those sustaining a healthy balance of secretive functions. Nor need it then be so thoroughly detergent as many imagine. A towel or sponge saturated with soapy or slightly alkaline water will soon do all that is required, unless one bathes for pleasure. Friction of the dry towel or hand, the air and the attendant muscular exercise are highly beneficial; weakly, or catarrhal subjects, however, should be handled tenderly.

A tree is hardly killed by cutting off the topmost boughs. Simple bathing is hardly a remedy for deep-seated ills demanding more general means of correction. We have not told all we have even thought upon the subject of the skin. We would like to say more, hut we have a vision of Mr. Freas' waste basket. —*Germantown Telegraph.*

The Pulse.—Every person should know how to ascertain the state of the pulse in health; then by comparing it with what it is when ailing, he may have some idea of the urgency of his case. Parents should know the healthy pulse of each child, as now and then a person is born with a peculiarly slow or fast pulse, and the very case in hand may be of that peculiarity. An infant's pulse is 140; a child of seven about 80, aud from 20 to 60 years it is 70 beats a minuto, decliuing to 60 at forescore. A healthful grown person beats 70 times in a minute; there may be good health at 60, but if the pulse always exceeds 70 there is a disease; the machine is working itself out; thero is a fever or inflammation somewhere, and the body is feeding on itself, as in consumption, when the pulse is quick, that is over 70, gradually increasing with decreased chances of cure until it reaches 110 or 120, when death comes before many days. When the pulso is over 70 for months, and there is a slight cough, the lungs are affected. The pulse decreases, when a recumbent position is assumed for any length of time, and is increased by exercise stimulants and the presence of food in the stomach.

Domestic Economy.

Household Hints.

A lady in McGregor, Iowa, sends these: A strengthening liniment, good for lamoness, weakness; also for bathing the stomach in cases of dyspepsia—take one beef's gall, two ounces of origannm oil, one pint alcohol; mix thoroughly; keep tightly corked; shake well before using.

One of the best cements for crockery is to mix lime with the white of an egg. To use it take a sufficient quantity of the egg to mend one article at a time. Shave off a quantity of lime and mix thoroughly. Apply quickly to the edges and place firmly together, when it soon sets and becomes strong. Calcined plaster of paris will answer in place of the lime.

If brooms are wet in boiling suds once a week they will become very tough, will not cut a carpet, but last much longer, and always sweep like a new broom. A handful or so of salt sprinkled on the carpet will carry the dust along with it and make the carpet look bright and clean. A very dusty carpet may be cleaned hy setting a pail of cold water out by the door, wet the broom in it, knock it to get off all the drops, sweep a yard or so, then wash the broom as hefore and sweep again, being carcful to shake all the drops off the broom, and not sweep far at a time. If done with care it will clean a carpet very nicely, and you will ho surprised at the quantity of dirt in the water. The water may need changing once or twice if the carpet is very dirty. Snow sprinkled over a carpet and swept off beforo it has time to melt and dissolve, is also nice for renovating a soiled carpet. Moistened Indian meal is used with good effect by some housekeepers. The broom wears out carpets as much as feet do.

Cooking by Cold.

It is a curious fact, not renerally known, that the action of intense cold on organic substances is similar to that of a high degree of heat, and that, when subjected to a very low temperature of heat, meat can be brought to a condition similar to its state when cooked by actual warmth. Quite recently a Hungarian chemist, Dr. von Sawiczewsky, who, it appears, has investigated all the various ways suggested for preserving meat (by chemicals, cooking by heat and hermetically sealing, etc.,) and has found points of objection to all, has attempted the preparation of the material by subjecting it in a perfectly fresh state to a temperature of 33° below zero, Fah., and sealing it afterwards in tins. The results obtained have been highly satisfactory; the meat on being removed from the cans appears, in point of smell and color, as fresh as if just taken from the butcher's stall. Although partially cooked, and thus requiring less fuel to complete its preparation for the table, it is entirely without the taste of meat which has been partially subjected to any heating process, and may be roasted, boiled, or otherwise treated, the same as if it were tresh. A commission appointed by the German government has lately conducted a series of careful aud successful experiments upon the process; and as a final test two corvettes of the German navy, being about to circumnavigate the globe, have been supplied with a large stock. An extensive factory is being erected in Hungary for its manufacture.—*Sci Am.*

Dish Washing.—Mrs. S. B. Sawyer, in the *Country Gentleman*, very pleasantly instrncts how to wash dishes so as to make it "fun." Let me describe, by way of contrast, another method, which is anything but fun, to the intelligent looker-on at least. Wash the dishes indiscriminately, without regard to their different condition, and without scraping; put them dripping from the greasy suds into another pan, bottom up. When the pan is full, pour over them a dipper of hot water, and thus "make clean the outside of the cup and the platter, hut within"—etc. Then take them directly from the water to towel, which is thns made soaking wet in a few minutes.

Dishes should always be drained a few seconds after rinsing, as it saves half the labor of wiping, aud keeps the towel in better condition. Your correspondent refers to a draining rack, which is no douht useful; but the plan practiced and taught by an excellent housekeeper of my acquaintance, was to drain the dishes on a cloth laid in the bottom of the sink. This keeps them from slipping and thus getting cracked, and also absorbs the water; and an extra dishcloth of good size, kept at hand for the purpose, will be found convenient. Those homely tasks are honorable because necessary, and it is heneath the diguity of no lady to learn the best methods of performing them.

Washing Flannels and Linens.—To whiten flannel, made yellow by age, dissolve one and a half pounds of white soap in 50 pounds soft wator, aud also two-thirds of an ounce spirits of ammonia. Immerse the flannel, stir well around for a short timo, and wash in pnre water. When black or navy blue linens are washed, soap should not be used. Take instead two potatoes grated into tepid soft water (after having them washed and peeled), into which a teaspoonful of ammonia has been put. Wash the linens with this, and rinse them in cold hlue water. They will need no starch, and should be dried and ironed on the wrong side. An infusion of hay will keep the natural color in buff linens, and an infnsion of bran will do the same for brown linens and prints.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. ROONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week.*	1 *month.*	3 *months.*	1 *year*
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Prompt Subscriptions.

We wish to thank those subscribers who send in their renewals to the PRESS promptly as regularly as the year comes round. It saves us much expense in commissions for collections and renewals. May we not request more of our good patrons to do so!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO

Saturday, March 18, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The Oppenheim Single and Double Buggy; The Debris Question, 177. The PRESS at the Chile Exposition; The State Agricultural Society; The Week; The Rainfall, 184. Agriculture at the Capital; The Sulpho-Carbonate Treatment; Our Reporter Abroad, 185. Sandwich Island Sugar; Patents and Inventions, 188.

ILLUSTRATIONS.—The Oppeuheim Single and Double Buggy, 177. Effect of Sulpho-Carbonates on Vines, 185.

CORRESPONDENCE. — Stable Manures; The Value of Coal Ashes; Growing Onions; The Eucalyptus in New Localities; Deep Plowing in Tulare County; A Nevada Farmer on Irrigation; Experience in Humboldt County; Hints for Work, 178-9.

HORTICULTURE.—Fruit Tree Pruning, 179.

STOCK BREEDERS.—Live Stock Transportation, 179.

PATRONS OF HUSBANDRY.—A Day for Tree Planting; What it has Done; How and Where it Pays; Prosperity of the Order; From the Granges; Election of Officers; A Good Movement; National Grange Lecturer; No Work, no Pay; In Memoriam, 180-81.

AGRICULTURAL NOTES from various counties in California and Oregon, 181.

HOME CIRCLE.—The Moneyless Man (Poetry); Emancipated; Who Knows? Happy Every Day; Keep to one Thing; Birds as Ornaments for Bonnets; Early Rising; Dress Four Centuries Ago; Ballads; The Adornment of a Farmhouse, 182-3.

YOUNG FOLKS' COLUMN.—Nell Van Tells the Children How Grace Found Amusement in Rainy Weather, 183.

GOOD HEALTH.—The Skin: The Pulse, 183.

DOMESTIC ECONOMY.—Household Hints; Cooking by Cold; Dish Washing; Washing Flannels and Linens, 183.

QUERIES AND REPLIES.—Concerning Pre-emption; "El Dorado Spring Wheat;" Planting Eucalyptus; Zante Currant Cuttings; Pine Apple Sprouts; Fruit Jar Rubber; Vanilla Beans, 184.

THE DAIRY.—A California State Dairymen's Association; Objects to be Gained by an Association; The Dairy at the Centennial, 186.

THE VINEYARD.—The Raisin Business; The Product of Five Thousand Vines, 186.

USEFUL INFORMATION.—How to Get Rid of Household Pests; Spoken Languages; Blast Furnaces in Great Britain, 186.

GENERAL NEWS.—General News Items and Miscellaneous Paragraphs, on 188 and other pages.

SHEEP AND WOOL.—Suggestions for Shearers; The Cause of the "Sheepy" Taste in Mutton, 190.

MISCELLANEOUS ARTICLES.—The Metric System; A Decision on Fencing; Freight on Centennial Articles; The Napa Viniculturists; Sales of Farming Lands, 188.

NEW ADVERTISEMENTS.

Averil Chemical Paint, California Chemical Paint Company, S. F.; Iron King Gang Plow, Fleischman, Seichel & Co., S. F.; Notice to Threshers, J. W. Riley, S. F.

The "Press" at the Chile Exposition.

A prophet is not without honor, etc. We have a communication from Wm. C. Quinby, Santiago, Chile, as follows: "I have the pleasure to inform you that your publications have been awarded the Grand Bronze Medal of the Chilean Exposition, the highest award granted your class of publications." We modestly deck our cap with this new feather.

ON FILE.—"Botanical Excursions," J. G. L.; "Dairy Association," C. W. H.; "Plowing and Sowing," G. J.; "Cherry Culture," San Jose; "Farming in Chile," C. T. W.; "Cost of Crops," B. H. D.; "Australian Woods," G. W. M.; "Experience at Los Nieto," G. K. M.; "Leghorns as Layers," G. W. T. C.; "Poultry Matters," M. E., Jr.; "Dry Sowing, Summer Fallow, etc.," G. W. H.; "Alhambra Grange," M. B. L.

THEY are having severe rainstorms in England and Scotland.

The State Agricultural Society.

During the week the Assembly committee to which was entrusted the investigation of the affairs of the State agricultural society, has reported that they are unable to find any mismanagement whatever, and pronounce the society perfect in all its parts. Its books are correctly kept, and expenditures have been proper and economical.

We are willing to accept the judgment of the committee concerning the book-keeping of the society. This was not the point upon which we based a complaint. Our position was and is, that the society has not been conducted for the highest good of farmers. It has not fostered and promoted the advancement of agriculture in a way which a farmer might expect of a State society, bearing the name of his industry. The report fully sustains our position. We could not ask a fuller and fairer statement of the condition of agriculture in the society than is contained in the following paragraph, which we quote from an official copy of the report:

"During the past few years there has been almost a general complaint among the agricultural community that too great attention is paid to horse racing at our agricultural fairs and that it is made their leading feature, overshadowing all else by its prominence. While this is true to a great extent, it will be seen that the receipts at the park are nearly three times greater than at the pavilion, which shows the public preference, and throws the responsibility upon the shoulders of the people rather than on the managers of the institution. It is too much the custom of the people to come to our fairs empty-handed, preferring the leisure and freedom of a visitor to the care and trouble of an exhibitor. To this thoughtless and unwarrantable custom among our industrial classes must be attributed more than any other cause the lack of interest manifested in our agricultural and mechanical exhibitions. To this custom must also be attributed the reason why the agricultural fairs throughout the country, as well as this State, have for years been leaning too much to the trials of speed on the race course rather than to the more useful and interesting exhibitions of the general products of the country. But until the time comes when the people will attend these exhibitions in preference to participating in the excitements of the race, agricultural societies will be compelled to continue horse racing as a prominent feature of their annual fairs.

This paragraph, in its argument, contains one of the thinnest specimens of special pleading which we have lately seen. First, The park pays better than the pavilion, therefore, an agricultural fair ground is a driving park. Is this good reasoning? Take an instance: A saloon pays better than a school; therefore, a school is a saloon, or must be made into one.

We acknowledge that it is difficult to make a first-class agricultural society profitable. It was just for this reason that State aid was bestowed upon the society. The interest is of such vital value to the State that wise legislators have deemed it worthy of encouragement. And how should a society be conducted to merit this State support? Certainly by efforts to induce people to exhibit the success and advancement which they are able to attain, not by building up side issues which, according to the words of the committee, "overshadow all else by their prominence."

The committee exalt the prosperity and profits of the park branch of the society. Why not then give it into the hands of those who uphold it? Why not let it stand alone upon its own name and merits? Why conduct its peculiar ceremonials under the name of agriculture?

The committee say truly that it is too much the custom of the people to come to our fairs empty handed, etc. But must they be encouraged and incited to do this by being shown that their industries are "overshadowed?" Rather is it not the true way to overcome this custom of the people by devoting every energy of the society toward building up the extent, variety and interest of the industrial displays, which it is worth the money of the State to foster and promote? The committee are frank to admit that the choice of the people appears to be for that which is not "the more useful and interesting exhibitions of the general products of the country." Now, as legislators, what is their duty when they see a wrong tendency among the people? They argue in their report that they must encourage such a tendency. They plainly state which is the better thing, and then endeavor to draw conclusions in favor of the worse. The committee is most unfortunate, either in its comprisons or its conclusions.

The committee would convey the idea that the agricultural societies of other States are "overshadowed" like our own. Their generalization is untrue. For instance, the New York State agricultural society, the most prosperous in the whole country, does not admit to its meetings "the excitements of the race," and its success demonstrates most emphatically that agricultural societies are *not* "compelled to continue horse racing as a prominent feature of their annual fairs."

We cannot see how the committee could have better approved our claim that the management of the society was not in the interest of practical and progressive agriculture than they have done in the report to which we have alluded. They state plainly that the farm and its legitimate industries are inferior to the professional sporting proclivities of the society. That is our claim exactly. The committee concludes that the inferiority of the industrial branches is hopeless. They are wrong. If the upholders of legitimate industry, who are in position in the management, will assert their voice and will work earnestly in building up the industrial features of the society, they will find themselves maintained by a host of the true industrial promoters of the State, which will lift the shadow from the pavilion. It remains with them to decide whether the organization shall be an institution of which the farmers and mechanics of the State may be proud, or whether its usefulness shall be continually overshadowed by the influences which congregate beneath the grand stand.

The Week.

The skies are clear again, and the sun has the suspicious brilliance of one who has just awaked but would have you think he had not slept. Our table of the rainfall in various parts of the State shows that there are many stray rain drops for the sun to win back to the sky. The liberal drenching and the chilly air have been of mingled good and evil to the farmer. In some of the bay valleys there have been lands too wet to seed and seed too wet to grow. In the lower part of Alameda county there are fears of wasted seed and rusty grain, and losses from exposure of sheep and lambs. In Sonoma, the farmers are looking up on the results of late sowing. In Contra Costa there is much yet to sow, and though the acreage may not be so great as usual, there is prospect of as large a crop as was ever realized. In the river bottoms there has been hardship from broken levees and inundated fields and drowned orchards. The wetting has been wide, for we hear from Oregon that the farmer has been unable to get in his crops, and from Los Angeles the quickly growing barley is in danger of being thrown down and ruined. The dilemma is sharp on either horn.

But there are other views of the water picture. In the great grain counties the abundance will be almost a burden. San Joaquin is a vast emerald of growing grain. Stanislaus promises five million bushels, and declares her cultivation better than usual. Calaveras reports grain 10 inches high and no injury from rain save on a little bottom land. Merced notes good looking crops and farmers' faces gilded with the coming harvest. San Benito, with her feet soaking, proclaims her higher parts in splendid growing; her greatest danger being in too forward fields. Tulare chronicles the first wool of the season in her markets and promises hay making in April. Thus the tidings come of general welfare and the passage of a week small in action but great in promise.

The Dairy.

We call the attention of our dairy readers to the letters which we print in our Dairy department this week concerning the benefits which can be derived from association and discussion of dairy work and dairy marketing. We have other letters equally earnest and straightforward, which we expect to print soon, and we hope all dairymen will write to us concerning the directions in which, as it seems to them, progress can be made toward increased product from the herds and increased profit from the industry. We hope to hear from all, whether they are engaged in cheese and butter factories or in home dairies, for all employ the same agencies and the same material, and all alike will be benefited by an increase of reward for their labor.

We are assured that our readers have perceived our disposition to make a fitting exhibition of the dairy industry in our columns. We intend to treat dairy matters in a more full and practical way than has ever yet been done in any newspaper on this coast. Dairymen who read the PRESS can greatly aid us in this work by mentioning this fact to their neighbors, for every thinking dairyman who is drawn to our audience will be led to give us the teachings of his experience and his support, and will enable us to do better work in this department. We trust our friends will aid us in this way.

The Rainfall.

We print below a tabular statement of the amounts of rainfall at the places named, gained from dispatches and our interior exchanges. The date given signifies the season's rainfall up to that day. The figures are large, and the general result will be plenty and prosperity throughout the State:

Name of Place.	*County.*	*Date.*	*Inches.*
Calistoga	Napa	Mar. 9	33.73
Napa	Napa	Mar. 9	28.08
Placerville	El Dorado	Mar. 9	47 96
Woodland	Yolo	Mar. 9	20 09
Dutch Flat	Placer	Mar. 7	53.06
Santa Rosa	Sonoma	Mar. 9	30.00
Colusa	Colusa	Mar. 9	18.48
Oakland	Alameda	Mar. 10	26.53
Petaluma	Sonoma	Mar. 9	23 97
Martinez	Contra Costa	Mar. 9	19.28
Sonora	Tuolumne	Mar. 9	53.00
Lakeport	Lake	Mar. 9	33.77
Weaverville	Trinity	Mar. 9	45.06*
Santa Barbara	Santa Barbara	Mar. 9	21.05
Auburn	Placer	Mar. 9	39.85
Grass Valley	Nevada	Mar. 9	47.00
Shasta	Shasta	Mar. 12	74.65
San Francisco	San Francisco	Mar. 13	29.40
Santa Monica	Los Angeles	Mar. 7	28.08
San Luis Obispo	San Luis Obispo	Mar. 10	28.50
San Diego	San Diego	Mar. 9	9.59

* And 94½ inches of snow.

IT is officially announced that the German squadron in Chinese waters will be considerably reinforced for the suppression of piracy.

QUERIES AND REPLIES.

Concerning Pre-emption.

EDITORS PRESS:—About a year ago an article appeared in the PRESS to the effect that a man who had enjoyed the benefit of pre-emption in the Atlantic States could avail himself of a second benefit in the Pacific States. Is this true?—[M. K., Los Angeles, Cal.

We answered the above query imperfectly a few weeks ago. There was such a provision made in the act of 1853, but the time specified by the law in which the second pre-emption could be made, has long since passed by, as the following explanation will show: The provisions of the act of September 4th, 1841, granting pre-emption rights to settlers on the public lands, were extended to the State of California by act of March 3d, 1853 (10 U. S. Statutes, p. 244). By the third proviso of Section 6, of the act of March 3d, 1853, permission is given to those who had the benefit of the Pre-emption act elsewhere, to take a second benefit of the act and make settlement on *unsurveyed* lands in California; but such settlements could not be made except within one year from the passage of the act (March 3d, 1853). By the provisions of Section 1 of the act of March 1st, 1854 (10 U. S. Statutes at Large, p. 268), the provisions of the act of March 3d, 1854, were modified so as to extend the time for such settlements on *unsurveyed* lands to within *two* years after the passage of the act of March 1st, 1854. These laws were made in order to encourage settlement on unsurveyed lands of California; but the time within which such settlements could be made was very properly limited, so that when the country was partially settled it should come under the usual restrictions concerning pre-emption rights. It will be seen also that the time within which those who had had the benefit of the act elsewhere could take a second benefit here, has long passed by. We derive this information from the latest edition of Dewey & Co.'s pamphlet on "The Public Lands," etc., which contains full details of laws on pre-emption, homesteads, etc.

"El Dorado Spring Wheat."

EDITORS PRESS:—Enclosed is a sample of wheat which I received from a friend back East. It is called, where he is, the "El Dorado spring wheat." It is a white wheat, with branches to the sides of the heads running up to near the top; with long heads, yielding from 70 to I don't know how many kernels to the head. My friend was informed the seed is grown in California. At present the wheat, where he lives, is in the hands of a few, who are selling it at an enormous figure. The people think it to be a big swindle. Please inform me through the columns of the PRESS, and oblige a subscriber.—[L. WIGGINS., Westminster, Cal.

Our querist doubtless takes the correct position with regard to this wheat, when he states what the people think of it. It is not more than a fair specimen of wheat and has no peculiar excellence whatever. One of our leading grain buyers, to whom we showed the sample, says he doubts very much its being grown in California at all. They have a way at the East of hoisting all kinds of seed swindles under the name of California produce. We can see no reason whatever for its being sold at a high price, and the fewer hands it is in the better.

Planting Eucalyptus.

EDITORS PRESS:—Please give some information in regard to the best method of planting the blue gum tree. (2.) How long a time does it require to grow them of sufficient size to plant from the seed, etc?—[E. V. JONES, Pomo, Mendocino county.

(1.) We print in our Correspondence department this week some explicit directions for planting eucalyptus trees.

(2.) It only requires a few months to gain size enough to transplant, for the seedlings may be set out when six to eight inches high. The seed will germinate in from one to two weeks. Seed sown in early summer will be well grown for fall or winter planting.

Zante Currant Cuttings.

EDITORS PRESS:—I want from 8,000 to 10,000 Zante currant cuttings, if to be had at reasonable prices. If within the extensive knowledge you have of the different nurserymen, you can give me the desired information or reference through your valuable paper, you will oblige a constant reader. Within twelve months I will give to your paper the results of experiments which I am attempting with grapes, blackberries, potatoes and onions.—[M. P. CUTLER, Los Angeles.

Our nurserymen have failed to advertise Zante currant and grape cuttings prominently. Possibly they may take a hint from the query. If any have the stock Mr. Cutler desires, will they write to him? We shall be pleased to receive the results of our querist's experiments.

Pine Apple Sprouts.

EDITORS PRESS:—Not having seen an answer yet in your columns in reply to the question "where to obtain pine apple sprouts," I would refer your correspondents to Mr. B. F. Wellington, whose address is in your advertising columns. I received from that gentleman, a few weeks ago, eight pine apple sprouts, seven of which are now doing well.—[D. T., San Buenaventura.

Fruit Jar Rubber.

EDITORS PRESS:—I find after using the glass fruit jars one season that the rubbers get hard and stiff, and the fruit spoils the second time using. Can I get new rubbers in San Francisco?—[S. R., Los Angeles.

The new rubbers can be obtained in any quantity desired. The store where the jars were purchased should be able to furnish them. If they have not any on hand they can easily order a supply.

Vanilla Beans.

EDITORS PRESS:—Will you please inform me through the columns of your valuable paper where to obtain seeds of the vanilla bean that will germinate?—[D. T., San Buenaventura.

Who will answer this query?

Agriculture at the Capital.

The Railroad Bill.

The time of the Senate Committee on Corporations has been largely occupied with the Archer fare and freight bill during the week preceding Monday last. On Monday the Committee reported unanimously against the bill, claiming that it does not make proper allowance for the different conditions which enter into the cost of railroad operation, and consequently would work hardship and wrong. The Committee recommend the appointment of a railroad commissioner to secure full information upon all points involved, which shall form the basis for future legislation.

Irrigation.

The West Side irrigation bill has been reported favorably by the Committee to the Senate, but that body has had so much self-imposed labor to convince themselves how a newspaper should be managed and other special matters of similar small importance, that they seem to have forgotten the consideration of matters of vital interest to the farmers. A few days ago Senator O'Conner gave notice of a bill which he should offer to the Senate as a substitute for the West Side bill when the latter should come up for action. The chief provisions of O'Connor's substitute are as follows: Section one authorizes the Governor to appoint three competent persons as Commissioners, one of whom shall be a civil engineer, to examine into the practicability of the construction of a canal for irrigating such of the lands upon the west side of the San Joaquin river, and between the river and the summit of the Diablo range of mountains, as are susceptible of being supplied with water by such canal. Under section two the Commissioners so appointed are directed to examine the district between Tulare lake and Antioch, making a topographical reconnoisance of the same, ascertaining the limits of the district which will be benefited by such canal, and the quantity of water therefor. Estimates of the cost of constructing the canal, with all necessary information, are to be presented to the Governor before the 1st of January next. By section three the Commissioners so appointed are allowed $5,000 for their services, with $500 traveling expenses and $1,000 expenses for employment of draftsmen and surveyors.

The Wide Tire Bill.

We have mentioned the Santa Clara county wide tire bill on several occasions. It has been approved by the Governor, and the following are the accurate provisions: All wagons used on public roads in this county, or wagons of any other county, used in this for habitual teaming, shall have tires as follows: If the axle in its vertical diameter be one and a half inches, the tire shall be two and a half inches wide; if one and three-fourth inches, three inches wide; if two inches, three and a half inches wide; if two and one-fourth inches, four inches wide; if two and a half inches, four and a half inches wide, if over two and a half inches, five inches wide. Or, if the axle be of wood, then the tire shall be as follows: For wagons constructed to carry one and a half tons burden, the tire shall be two and a half inches wide; if to carry two tons, the tire shall be three inches wide; if two and a half tons, three and one-fourth inches wide; if three tons, three and a half inches; if four tons, four and a half inches, and all over five tons the tire must be five inches wide. This act takes effect after the first of May, 1876. We gave last week a cheap method of changing a wagon from narrow to wide tires.

Phosphorus Poisoning.

The law now, we believe, says the Contra Costa *Gazette*, prohibits the use of phosphorus for field poisoning earlier than the first of November in any year. But a bill introduced by Mr. Wood and reported favorably by the Agricultural Committee of the Assembly a day or two since, provides that in the counties of Santa Clara, Contra Costa, San Joaquin, Santa Cruz and San Mateo it may be lawfully used for such purpose during the period from the 15th day of October and the first day of April.

Native Grape Brandy.

The Senate passed the concurrent resolution by Assemblyman Lambourn, of Los Angeles, memorializing Congress to abate the tax on native grape brandy. The present duty is at the rate of 90 cents per gallon, while the market rate for new brandy is only $1.25. The difference between these two figures makes brandy making unprofitable, and thousands of tons of grapes which could be used in adding to the wealth of the State are suffered to rot upon the ground. The brandy makers of California have before represented their case to Congress, but not with the success they deserve. It is more than probable that if the present tax, almost amounting to a prohibition of the manufacture, be reduced, California will in the course of a few years be as famous as France for its brandy production. A reduction in this tax also will give a great impetus to wine making.

State Agricultural Society.

Mr. Lambourn, from the Agricultural Committee, has presented a report on the State agricultural society. It was of great length, and was ordered printed without being read. It vindicates the society from all charges of mismanagement. We allude to this matter elsewhere.

The Sulpho-Carbonate Treatment.

Not many weeks ago there was a short paragraph going the rounds of the newspapers that the French had found an effective antidote for the evils of the phylloxera in the application of alkaline sulpho-carbonates. The information was general and not very satisfactory. We now find in *Nature*, a European publication, a detailed account of the method employed to apply the sulpho-carbonates. Our engraver reproduces the illustration as it was originally taken from photographs of vines, one of which was treated with the remedy and the other left to the merciless insect.

What is a Sulpho-Carbonate?

Chemically speaking, the sulpho-carbonates are formed by the combination of a mono-sulphide with the sulphide of carbon. The substances resulting from this combination are now being made chiefly in large quantities in France. The alkaline sulpho-carbonates, those from the bases sodium and potassium, are soluble and are easily applied to the vine roots The manufacture of the remedy in this country has not been begun, so far as we are aware, on a scale which will place the substance within the reach of the vine grower, but still it is very interesting to understand fully the details of the French practice. If the demand arises there is no doubt but that the material will be forthcoming in any amount which can be used.

EFFECT OF SULPHO-CARBONATES ON VINES.

How the Remedy is Applied.

We quote the following from the published account of the practice in France: The useful application of the alkaline sulpho-carbonates to the cure of attacked vines requires, first, that all the infested surface may be treated; second, that the toxic action may be carried sufficiently deep in order to reach all the phylloxeras. These two conditions combine for the complete destruction of the parasite. It is necessary, moreover, that the remedy should act in the most economical manner. The best means of obtaining a perfect diffusion of the poison in the soil consists in the use of water as a vehicle. The quantity of water employed may depend upon the degree of humidity of the earth and upon expected rains; but the use of some water is necessary. From experiments conducted at Cognac, in France, and many times repeated throughout that country, it appears that, to apply the sulpho-carbonate solution, square excavations should be made in the soil, about three inches deep and 30 inches wide. As all the infested locality must be treated, these holes should be made sufficiently near together that the earth partitions between them shall become soaked after the liquid is poured in. The bottom of the excavation, it is hardly necessary to state, should be horizontal, so as to afford the best opportunity for the solution to infiltrate uniformly into the earth; and this should be borne in mind when the natural level is inclined. The holes should be brought up close to the base of the vine treated. The above done, about two and two-third ounces of the sulpho-carbonate, at 40° B., is mingled with any quantity of water, in the ordinary watering pot or other vessel, thoroughly mixed, and the whole poured into one hole. Repeat this for every hole made, the area covered by the whole number of excavations of course being that under-run by the roots of the vine. Then return the earth about the base of the vine and pour on plenty of fresh water, so that the poison will be forced deep down to all the roots.

Our Illustration

Is to give an idea of the practical results of this treatment. The two feet of vines shown formed part of a single attacked gronp, in which the parasite had existed for three years, and they had reached about the last stage of the disease. In March, 1875, one-half of the selected group was treated with the chemical, the other left to its fate. In the treated portion, it should be noted that, out of 260 vines, 60 were already dead. Up to July the vegetation of the vines, without growing any weaker, had not improved; and it was not until the beginning of August that the leaves began to grow green and the shoots to elongate. Meanwhile, the vines not treated were daily perishing. In October, two average vines, one from each portion, were selected and reproduced, as stated, by photography, for the purpose of the present illustration. The vine on the left has very short branches, and its radicular system is almost destroyed; it may be considered, in fact, as dead. That on the right, which was in similar condition to the other before treatment, is evidently considerably improved, new shoots appearing and new roots being thrown out, so that it may be predicted that by next year it will have regained its former vigor.

Prof. Hilgard's Lecture.

In this connection we may announce that Prof. Hilgard's able lecture on the Phylloxera is printed full in the *University Bulletin*, No. 23. We understand that copies have been sent to all agricultural organizations in the State, and we doubt not any vine grower can obtain a copy by writing to the professor at Oakland postoffice. The lecture contains a full description of the sulpho-carbonate treatment, mentioning many facts which we have not space to reproduce at this time.

The Press at the Centennial.—We have received a circular, issued by G. P. Rowell & Co., describing a plan for exhibiting the serial publications of the country at the Centennial. A beautiful building will be erected, in which the thousands of magazines and papers will be shown. It is a happy idea, and many a visitor from far off regions will feel as though he had met an old friend as he sees his favorite newspaper spread its well known face before him. We heartily approve the plan. The Press will be there, ready to receive its patrons and friends in the elegant newspaper edifice.

Meeting of Cattle Breeders.—The annual meeting of the Thoroughbred Cattle Breeders' Association will be held at the Produce Exchange, 304 Davis street, in this city, on Wednesday, April 5th, at 2 P. M. The election of officers for the year will be held and other business transacted. Cattle breeders generally are invited to attend. Robert Ashburner, Secretary of the Association, informs us that the Sacramento cattle sale, noticed in last week's Press, will be held April 20th.

Sweet apples are among the most healthful fruits we have. The genuine sweets are delicious, too. We think more of them should be raised and used on this coast. Mr. C. W. Pomeroy, of San Jose, has furnished us a few scions of the Tallman Sweet, for which he has our thanks. These are the sweetest apples we have eaten in California.

Our Reporter Abroad.

NUMBER TWO.

Sacramento Foundries.

Some of the Sacramento industries in which farmers are particularly interested were excluded from notice in my letter of last week, for want of time. Among them, the Union foundry, belonging to Root, Neilson & Co.

This old-established and well known firm continne to make quartz mills, steam wagons, pumps and all kinds of mining and mill machinery, and are about to commence the manufacture of hay presses. They are now getting up a working model of a quartz mill, which is to be in operation at the Centennial exhibition.

Near by them is the Sacramento foundry, Guttenberger & Co., where much the same kind of work is done. They are making Cowle's giant quartz mill, a model of which was examined and for which the inventor claims great capacity in proportion to the power used.

Laufkotten Bros. are engaged in a most important and interesting business to the farmers of the coast, that of boring for water, and manufacturing all the necessary machinery for getting it to the surface. They make pumps, horse-powers, windmills and all the requisite appliances. They are practical working men and attend personally to putting their work in successful operation.

M. R. Rose conducts a similar business in many of its branches to the above, and has a machine shop and brass foundry. He makes a specialty of repairing agricultural implements.

The Capital Nurseries.

Established by Robert Williamson in 1865, must be considered among the most important enterprises of the place. They are now owned by this gentleman and W. R. Strong, of San Francisco, composing the firm of Strong & Williamson there, and W. R. Strong & Co. here. Their grounds contain 45 acres, partly within the city limits, and are closely planted in nursery stock, principally fruit and shade trees. But they are now adding grapes, oranges, lemons and limes on a large scale. Their well deserved reputation for accuracy and reliability has given them a large trade, and made them the leading nursery of this portion of the State. They have a seed and commission house here as in San Francisco.

Points About Sacramento.

Thus it will be seen that the dealers and manfacturers here are well prepared to supply the trade which legitimately seeks this market. Besides being the depot for an immense farming region, Sacramento receives much attention as headquarters of the State agricultural society, which annually calls hither farmers from all parts of the State. Your readers in this State are probably all familiar with the beautiful fair grounds and ample buildings of the agricultural society, and maybe have seen them on more auspicious occasions than the present season affords, as there is too much mud and water just now to permit a full and favorable inspection. The large exposition building in town is made a source of revenue by renting portions of it for various purposes, and is found to be admirably adapted to several uses. The fair grounds also add materially to the resources of the society, renting this year for $6,000.

The Roads.

In this rich deep soil, with much of the land subject to overflow, it is probably necessary that the roads should be bad at this season of the year, but hardly so bad as they actually are. Access to many ranches is almost an impossibility. Some important roads have nearly impassable places, and scarcely any are without uncomfortably deep holes. It is fortunate that the system of farming does not include heavy winter hauling. This state of affairs has a bad effect upon land buyers (there are some here now) and, if it is possible, something should be done to improve the condition of the roads as well to enhance the value of the property as for the comfort and convenience of those who use them. Of course the subject of public highways is a *questio vexata* everywhere, and where the population is very sparse it appears to be impossible to meet the requirements for making and keeping them good. Want of numbers, however, is not the difficulty here. Skill and ingennity will be needed to overcome the natural obstacles, and it is to be hoped that some liberal system may soon be adopted which will give better winter traveling.

A Glimpse from Gilboa.

Being debarred by high water and deep roads from extended visits to the surrounding country, I have had to depend upon the courtesy of several gentlemen who appeared to have pleasure in giving me information. Especially to Maj. Robert Beek, Secretary of the State agricultural society, am I indebted for much information which, tempered by his close observation and sensible opinions, will be of much benefit in my future journeys. The next best thing to getting into the valley was to get a look at it from the dome of the Capital. The grand view from there, limited only by the horizon, bewilders the mind by its extent. While one may write down the number of miles the plain extends in one direction and in another, there is no adequate conception of its magnitude and still less of its capabilities and possibilities in the future. When a dense population is cultivating closely every foot of this productive soil, when engineering skill has confined the rivers to certain limits and provided sure means of irrigation, the immensity of its products will be almost beyond human calculation. J.

The Dairy.

A California State Dairymen's Association.

Editors Press:—I noticed in the columns of the Press of March 4th, an article under the head of "The Dairy," suggesting the propriety of calling a convention to be composed of all the dairymen, and I suppose all others who may feel an interest in this branch of husbandry upon this coast. Now, this meets my fullest approval. Having witnessed and having been a participant in the benefits arising from the "American dairymen's association," which has done so much for the pecuniary interest of all our Eastern dairymen, I feel that it is a move in the right direction, and earnestly hope that it may meet the approval of all concerned. I have but recently moved from New York (where I have been for years engaged in the dairy business) to this coast for the purpose of continuing in this branch of husbandry. It is the one with which I am most familiar. I have already felt the necessity of some measure or measures being adopted for the

Mutual Protection of Dairymen

Upon this coast from various reasons, all of which I cannot here suggest. But among present evils, and far from being the least, is the present system of marketing our product. This, in my judgment, needs immediate and united action upon the part of all dairymen. One thing must certainly be obvious to all concerned, and that is that the present high tariffs to which we are now subjected by commission merchants by the way of five per cent. commission, discount upon silver, one-half cent per pound for casing our cheese, whether cased or not, etc., when taken in connection with the present price received for our goods, does not certainly present very flattering prospects for the future development of the dairy interest of our State.

And again, there is far too great difference between the price received by the producer and that paid by the consumer. I notice in the columns of the Press that the best California cheese retails as high as 30 cents per pound, while the highest quotations at wholesale were only 16 cents per pound; and yet I have failed to see through the columns of any paper that the consumer finds fault with the price which he pays. Now, what I have stated being a fact, is it not suggestive of the fact that our interests are not properly regarded by those to whom we consign our goods?

Prompt Action Called For.

I hope there will be a ready response to your request by all dairymen throughout the State, and that the earliest time possible may be named for the interchange of views upon the subject of dairying and all pertaining thereto. In conclusion let me say that I am heartily glad this suggestion has been voluntarily made by the Press; a fact that should convince the most skeptical that their interests are in common with others to be guarded through its columns, which, of itself, ought to secure for it the name of every dairyman in the State as a subscriber.

I hope that the efforts of the editor in this department of the Press may secure for him the popularity in his new field of labor which he so justly earned, and which was so universally acknowledged by the dairymen in the East through the columns of the Utica *Herald* upon his leave. E. A. Davison.

Gilroy, March 6th, 1876.

Objects to be Gained by an Association.

Editors Press:—In your last number of the Rural I see you solicit a response from the dairymen to your call for a dairyman's convention. I am a dairyman, having followed that business here, in this place, fourteen years, and I have often felt that we had a need of just such an organization as you speak of. First, To improve the quality of our products; and secondly, to improve the stock of cattle from which we make our butter and cheese.

In this section of the country we would improve our stock if we knew where we could get bulls of the best milch strains, that we could depend on. We have made great improvement on our original stock, but still there is a chance for more.

As our commission men will testify, Gilroy cheese has undergone a great change for the better in the last three years. The introduction of new styles of vats and heaters has had much to do with this change.

We are still behind the Eastern producers in our style of sending our cheese in sacks instead of boxes to market. Here is a question I think an association can remedy, by telling us where and for how much we can get our boxes, so that we can save a part of the one-half per cent. we have to pay for all our cheese we produce and sell through our commission merchants.

Gilroy is sending to San Francisco the dairy products of 3,000 cows, at a low estimate, and I think the dairymen will respond generally to your call; at least, such of them as I have talked with will. This is a cheese-making country exclusively. My own dairy has only 65 cows. There are some others here as small, but many larger ones. Albert Willson.

San Felipe, Cal., Mar. 7th.

The Dairy at the Centennial.

We have information that the dairymen of the East are progressing finely with their enterprise of erecting a dairy building on the Centennial grounds. We have received an interesting letter from J. H. Reall, of Philadelphia, in which he says:

"The dairy building planned by Messrs. Wilkinson and Blanding is to be a U shaped structure in plans, the main building about 130 feet in length, by 40 in width, the two wings each about 40 by 70. The main building is two stories in hight, the wings are subdivided so as to adapt it to the exhibition of implements, arranged for manufacturing cheese and butter, and for the display of the products, also for all apparatus pertaining to a factory or creamery. The American department will contain exhibition floor room for at least 1,000 cheese and 200 packages of butter. The Canadian depot for about 500 cheese. The display rooms will be refrigerated with Wilkinson's subterranean ventilation. The building is designed to cost at least $10,000, and to possess every requisite of a dairy building, while the architectural features will be of an artistic character, to correspond with the other buildings. About $7,000 have been already raised, and the balance is needed at once to complete the plans."

During the week we have been favored with a call from Mr. James Payne, of the Tomales, Marin county, cheese factory. Mr. Payne expressed his intention of preparing six cheese of his manufacture of different sizes for exhibition at the Centennial. What do other cheese and butter dairymen propose to do toward representing California? We shall be pleased to hear from them.

The Vineyard.

The Raisin Business.

The California raisin crop last season was estimated at 20,000 boxes and the receipts here to date have been 17,600 boxes, so that the estimate was probably not far out of the way. Preparations are being made for increasing the quantity next season, which will necessitate the finding of a market for a portion of them elsewhere. One or two car loads were sent to Chicago last fall and were readily sold at fair prices. There will be no difficulty in disposing of any surplus the State is likely to produce for years to come, if pains are taken to produce a first-class article. The California grower has the whole Union for a market and the United States is the largest consumer of raisins in the world. There is, therefore, no danger of overstocking the market. The magnitude of the business in Spain is apparent from the following statement of the exports from Malaga for two years:

	1874.	1875.
United States, boxes	853,100	689,900
British Colonies	46,600	37,000
England	139,000	215,400
France	77,500	179,400
North of Europe	54,600	71,300
West Indies and South America.	53,600	23,900
Mediterranean and Portugal	34,800	18,900
Totals	1,259,200	1,235,800
Coastwise and Interior	34,800	74,200
Totals	1,294,000	1,310,000

The crop during the past two years has not been up to the average of previous years. For the same time in 1872 the shipments were nearly 2,000,000 boxes, and again, 1873, they were 1,735,000 boxes.—*S. F. Call.*

The Product of Five Thousand Vines.—Five thousand vines are not many, and do not cover much space of ground—less than six acres probably, all told—yet how much may be done with them may be seen by the following figures, with which we are favored by J. H. Kister, of this place. This is no "estimate," no glittering generality, but a genuine extract from a cash book which bears upon its exactness the impress of truth. The amount and value of each year's crop for five years are given:

1871, 30 tons, 1,394 pounds, amount received	$654 48
1872, 29 tons, 485 pounds	482 63
1873, 9 tons (after the heavy frost)	150 00
1874, 50 tons, 1,578 pounds	925 46
1875, 34 tons, 1,596 pounds	562 25
Sold to other parties	62 20
Total	$2,837 02

Think of that, a total of nearly $3,000 for six acres in five years. In one year, it will be observed, the product ran to the enormous amount of 50 tons, and brought nearly $1,000. The smallness of the yield of 1873 was owing to a devastating frost which blighted every green thing for that year—a frost which every vine-grower will remember for years to come. In the spring of 1875, 750 of the vines were cut away, so that the product of that year was from only 4,250 vines.—*St. Helena Star.*

For kitchen and pantry floors there is nothing better than a coat of hard paint. The cracks should be filled with putty before it is applied, and the paint allowed to dry at least two weeks before using. Then it is easily kept clean by washing (not scrubbing) with milk and water; soap should never be allowed to touch it. "Red lead and yellow ocher I prefer for coloring; the former makes a hard paint that wears well."

Useful Information.

How to Get Rid of Household Pests.

I have not seen a bedbug or flea in my house for many years. If an army of them were to be brought in, mercury would speedily exterminate them; but I think cleanliness the best and perhaps the only preventive. The common house fly I do not molest, believing that it more than compensates for its trouble by clearing the atmosphere of effluvia and the animalcules which always arise from the putrefaction of decaying substances during warm weather.

So also with the birds, which are quite numerous here during the summer. Instead of shooting them or setting up scarecrows to frighten them away, I throw out every possible inducement for them to build in my fruit trees. The birds capture a large share of the insects in the larva state, and thus the millers are prevented from depositing eggs for future worms. As to the loss of fruit by the birds, the latter are always sure to be on hand in force in the season of ripe fruit, whether they come early to take the worms or not.

For the residue of insects that infest my vegetable garden, I find that the laboratory of the chemist furnishes materials fatal to them all, among which white hellebore and cayenne pepper are of the most utility. The bug or worm which cannot find vegetation unflavored with these articles will seek its breakfast elsewhere and leave a garden unmolested.

A few drops of carbonic acid in a pint of water will clean house plants from lice in a very short time. If mosquitos or other bloodsuckers infest our sleeping rooms at night, we uncork a bottle of pennyroyal, and these insects leave in great haste, nor will they return so long as the air in the room is loaded with the fumes of that aromatic herb. If rats enter the cellar, a little powdered potash thrown into their holes, or mixed with meal and scattered in their runways, never fails to drive them away.

Cayenne pepper will keep the buttery and storeroom free from ants and cockroaches. I a mouse makes an entrance into any part o your dwellings, saturate a rag with cayenne in solution and stuff it into a hole, which can be repaired with either wood or mortar. No rat or mouse will eat that rag for the purpose of opening communication with the depot of supplies.—*Scientific American.*

Spoken Languages. — Dr. Butler, of the Methodist mission in Mexico, draws attention to the fact that the Spanish language stands third in the list of European tongues, being spoken by more people than any others except the English and German. Of the 50,000,000 for whom the Spanish is the mother tongue, over 29,000,000 live on this continent.

A large lake has been discovered about 40 miles west of Laramie, W. T., in the bottom of which is a thick layer of sulphate of magnesia or epsom salts in almost a pure state.

Blast Furnaces in Great Britain.—At the close of 1875 there were 993 blast furnaces in Great Britain, but only 582 of the number were in blast.

McCormick's Mowers and Reapers.

Everybody knows that McCormick's Reapers and Mowers have a world-wide reputation. McCormick's inventions on these machines have been the most important ever patented in this or any other country. Selling thousands of them in the older States, in the face of all kinds of opposition, the inventors and makers (who have an immense factory,) have not hitherto pushed the machines on this Western shore, as they now intend to. Farmers can depend upon every machine and all its parts when sent out from the factory of this old established firm.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier. Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $10 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't — I. G. GARDNER...V. Pres't
G. P. KELLOGG, Treasurer — A. W. THOMPSON....Att'y
I. C. STEELE.....San Mateo — CHAS. LAIRD, ...Salinas
A. WOLF.....Stockton — A. D. LOGAN.....Colusa
W. H. BAXTER.....S. F — G. W. COLBY .....Butte Co
J. C. MERRYFIELD, Dixon — C. J. CRESSEY, ..Oakland
A. B. NALLY....Santa Rosa — E. W. STEELE, S. L. Obispo
FRED. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....$3,026,378.00
TOTAL PREMIUMS..... 63,306.49
LOSSES PAID..... 646.00
No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

Successor to A. Prister & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER
Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.
Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

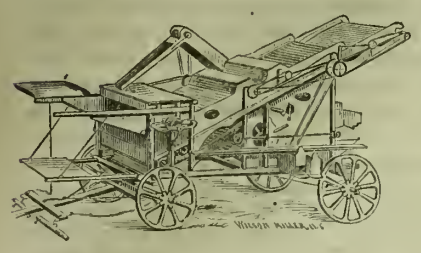
STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range,

53 and 55 J Street, Sacramento.

Treadwell's Patent

END-SHAKE THRESHER.

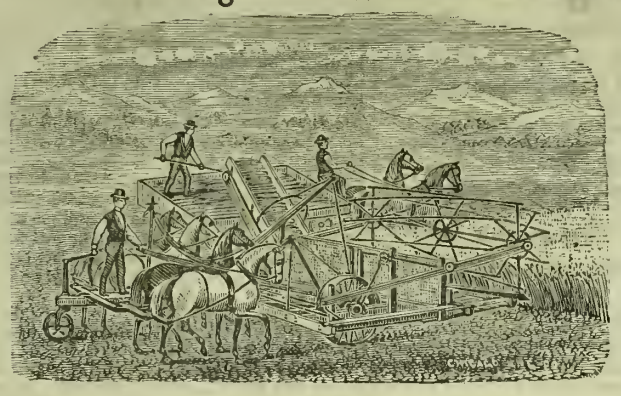


MADE BY RUSSELL.

We have 24, 30, 33, 36, and 40 inch machines, made this year, all with Laufenburg's patents, and the celebrated End-Shake Shoes—the greatest improvement yet made in Separators. Send for circulars and prices.

Treadwell's Single-Gear California Header.

High Iron Wheels with Adjustable Spokes.

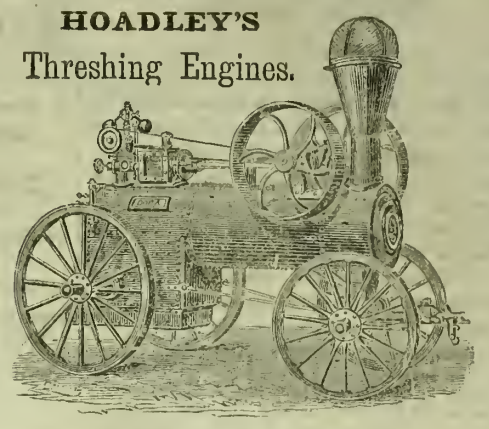


Patent Adjustable Reel and Frame Brace.

No other Header has these Improvements.

☞Any farmer buying $300 of werth machines or implements of us, will he paid his fare to San Francisco and back, if not over 200 mi es. Re can thus come and see for himself, without any expeuse. Seud for our prices before ordering any machines.

HOADLEY'S Threshing Engines.



REDUCED PRICES.

9	Horse	Power,	new	style,	complete	$1,200
12	"	"	"	"	"	1,450
15	"	"	"	"	"	1,650
15	"	"	Patent	Straw	Burning Engine	1,700

TREADWELL & CO., - - - Old Stand, Market, head of Front Street, - - - San Francisco.

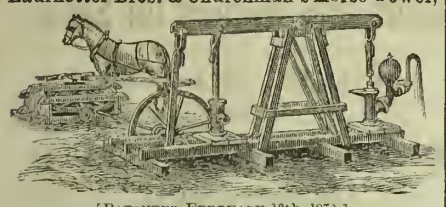
Agricultural Articles.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[Patented February 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separatnrs, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

ÆTNA MOWER AND REAPER

Price of Mower, $100.

The Latest and Best. Weight, 650 lbs; cuts four feet, four and one-half inches. It has ALL THE IMPROVEMENTS of every first-class machine, besides a DOUBLE SPEED (which no other has), giving a fast or slow speed to the knife or sickle—an important advantage. Send for Illustrated Pamphlet, and don't fail to see the "ÆTNA," before buying. For sale only by

TREADWELL & CO., San Francisco.

☞We guarantee to keep "extras" on hand from year to year for this machine.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

OAKLAND Spring Balance Gang Plow,

Patented by H. V. DALTON, and Manufactured at the

Pacheco Agricultural Implement Works,

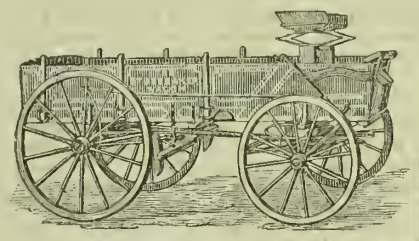
Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with lighter draft, to do more perfect work, and to be more easily and perfectly managed than any other yet offered to the farmer.

The essential feature of the device (see engraving in last week's RURAL), is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of 9 inches into the ground, or be raised 7 inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,
Pacheco Agricultural Works, Pacheco, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

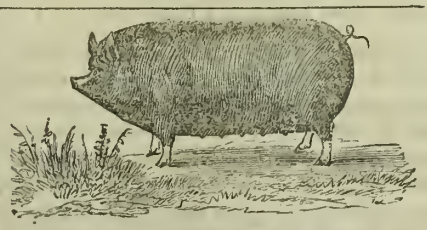
Send for Price List.

E. E. AMES, Gen. Agent,
Sacramento, Cal.

Live Stock Notices.

We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 500 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represeuted. Send for circular.

LANDRUM & RODGERS,
Watsonville, Santa Cruz Co., Cal.



R. S. THOMPSON,

IMPORTER AND BREEDER OF

PURE BERKSHIRE SWINE.

NAPA, CAL.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

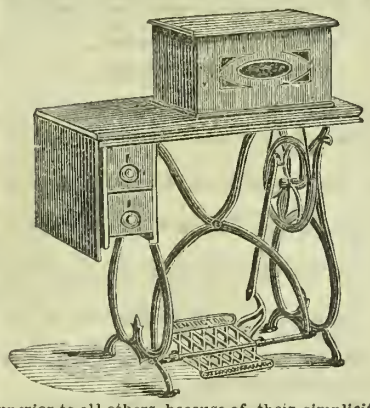
LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 45 Oal. Market S.F

Miscellaneous Notices.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Dismoud set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel, S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,
19 New Montgomery Street, S. F.
☞Grand Hotel Building.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

COMMERCIAL HOTEL,

Montgomery Avenue, Kearny and Pacific Streets, San Francisco, Cal.

Two blocks west of the Post-office—Street Cars from all the Steamers and Railroad Depots, and

FREE COACH AND CARRIAGES TO THE HOTEL.

HORNBLOWER & SAXE, Proprietors.

Hotel is brick, four stories, contains 175 large rooms, all perfectly lighted and ventilated, bathing rooms, hot and cold water and closets on every floor, street frontage 321 feet, three flights of stairs, and one Patent Hydraulic Elevator. Hotel and furnishing all new—post nearly $245,000. Will be kept First-class, at $2.00 per day, and less by the week or month.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS COMPANY, 609 Sacramento St., S. F

LEVI STRAUSS & CO.,

Patent Riveted Clothing,

14 & 16 Battery St., San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

H. K. CUMMINGS. 1858. H. H. RALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer. 4v23-1y

TRADE MARK.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

LEA & PERRINS' CELEBRATED WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

Sandwich Island Sugar.

The sugar crop of our Sandwich island neighbors is a matter of interest to many on this coast. Its bearings on our beet sugar industry are very close. In the late manifest of the Sacramento beet sugar establishment, which we noticed some weeks ago, the superintendent claimed that reciprocity with the islands would ruin the California sugar interest. Whether this position was well taken or not seems doubtful, for the quotation from the *Hawaiian Gazette* which we make below points a way in which reciprocity will destroy the plantations on the islands. The *Gazette* notes also the certainty of a small sugar crop for the present year. It says: "There has been an increase of 250 tons in the amount of sugar exported during the year of 1875, over the previous year. But planters have had immense obstacles in the matter of labor. This evil, which is constantly growing more serious, has already affected the plantations to a most deplorable extent, and threatens soon to swamp some of them unless prompt measures are taken to avert it. This is plainly indicated by the falling off which the present year will present in the production of this staple. The dry weather which has damaged the growing crop in some quarters will account for but a small part of this diminution. By the subjoined table it appears that the estimated crop for this year is about 1,300 tons, and it is feared that it will even fall short of this low estimate. Only five plantations out of the 31 expect larger crops than last year, while a large proportion are calculating on a decreased yield. During 1875 three companies of immigrants from China arrived here, numbering in all about 160 persons, but they had no effect upon the labor market, as they went into the cultivation of rice. The Government has partial contracts with three or four parties, which if fullfiled will land 500 or 600 Chinese men and women in the country during the present year. But these driblets of laborers do very little toward supplying the demand, and unless more comprehensive and practical views of the situation are soon adopted, the ratification of the Reciprocity treaty will be the death knell of the sugar interest, for laborers will exchange the cultivation of sugar under task-masters for the more independent and profitable rice culture."

THE METRIC SYSTEM.—In this city on Saturday evening, Prof. John Le Conte, of the State University, delivered a lecture on the metric system of weights and measures. He described the origin of the system and, in closing, alluded to its prevalence in this country, as follows: The architects, or many of them in America have adopted this system in their scales, and the carpenters and builders will have to follow suit. It will be just as handy for them to carry a rule of the metric system in their pockets, as it is for them now to carry the folded "two-foot" rules. The world must have a common system of weighing and measuring, sooner or later. The system should be introduced into the public schools and taught in the primary grades. The principal objection to its introduction, however, lays not so much with parents and pupils as with the teachers themselves, who are unwilling to unlearn what they have practised all their lives, and study a new system. Not many years will pass before the system will be universal in Europe and America.

A DECISION ON FENCING.—The Code provides that if any land-owner fences in his land, and the owner of an adjacent property builds up to the prior fence, and then uses it for one side of his enclosure, he shall pay one-half of the cost of the partition fence thus used. Several farmers enclosed their land by a common fence in one field, and an outsider built up to their line, supposing that the provisions of the Code did not apply to such a case. The Supreme Court, in the case of Gonzales vs. Wasson, decides that it does, even if the enclosure for part of the way is made by a natural barrier and not a fence.

FREIGHT ON CENTENNIAL ARTICLES. — We understand that the Central Pacific railroad company has issued printed instructions to the various agents of the road and others, concerning the methods of sending articles for exhibition at Philadelphia next summer. All articles unsold, properly certified to, will be returned back to the senders free of charge by the connecting lines of railways. But the way charges and terminal charges from home must be prepaid, and the articles properly directed and labeled to ensure delivery and return, as well as safety and responsibility everywhere.

THE NAPA VINICULTURISTS.—The Napa viniculturist society is apparently a wide awake organization, and it will not be the fault of its members if they should fail to find a way out of the embarrassments which beset their industry. A number of meetings have been held for discussing the advisability of establishing a co-operative wine cellar, or rather three of them, at convenient locations. We trust their efforts will prove successful, and we await the definite arrangements of their plans before bringing them before our readers.

ATTENTION is called to the advertisement of threshing engines by J. W. Riley.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington D.C., Mar. 14th, 1876.

FOR WEEK ENDING FEBRUARY 29TH, 1876.*

ELECTRO-MAGNETIC REGULATORS FOR STEAM ENGINES.—Stephen D. Field, S. F., Cal.

ELECTRICAL SWITCHES AND CUT OUTS.—Stephen D. Field, S. F., Cal.

SADDLE TREE (papier mache and cork dust).—Pemberton B. Horton, S. F., Cal.

WHEELS FOR VEHICLES.—Charles Lea, Florin, Cal.

ADJUSTABLE MOLD BOARD SCRAPER.—Frank C. Milliken, Santa Cruz, Cal.

VEHICLE SEATS.—Frederick Oppenheim, S. F., Cal.

CLOTHES LINE.—Lorenzo Swett, S. F., Cal.

SHOES.—Hippolite Von Haverbeke, S. F., Cal.

QUARTZ MILLS.—Samuel H. Cowles, Sacramento, Cal.

ROTARY CULTIVATOR.—George E. Hopkins, W. T.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

General News Items.

DON CARLOS will emigrate to Australia.

THE Bank of the State of New York has suspended.

JAPAN has formally declared war against Corea.

A TUNNEL through Russian hill in this city is proposed.

THEY are having a printers' strike in New York.

MRS. BELKNAP is to be subpœnaed by the House committee.

DR. PARDEE was elected Mayor of Oakland at the election this week.

THE Wall street king, Daniel Drew, has gone into voluntary bankruptcy.

THEY had a very destructive gale on the English and French coasts this week.

JUDGE TAFT, the new Secretary of War, has assumed the duties of his office.

CAPT. W. N. DEHAVEN, editor of the Chico *Enterprise*, died on the 11th inst.

THE Senate Committee reported against the passage of the Archer fare and freight bill.

THE Consolidated Virginia mine is turning out bullion to the amount of $100,000 per day.

SILVER is in demand in London, the supply being limited. Bars are very firm, at 53½ pence per ounce.

AN association entitled the Sportsman's Club of California, having for its object the protection of game and fish, has been estab'ished in this city.

A MAJORITY in the House Committee on Indian Affairs agreed to report a bill transferring the Indian Bureau to the control of the War Department. The minority will protest.

THE Pacific Mail steamship company has issued a circular by which it is shown that the earnings of the company for the past year amount to $11,950,000.

THE jetty system of improving the mouth of the Mississippi river seems to be successful, vessels drawing 19½ feet of water having gone to sea through the jetties at Southwest pass.

THE *Serapis*, with the Prince of Wales and suite, has sailed from Bombay for England. After calling at Malta, where a series of grand receptions are arranged, and also at Lisbon, the Prince of Wales will go direct to Portsmouth, reaching there about the 20th of April.

IN regard to the shower of flesh in Kentucky, Prof. Smith, the scientist, says, in his analysis of specimens examined by him: "In my mind, this matter gives every indication of being the dried spawn of batrachian reptiles, doubtless that of the frog. They have been transported from ponds and swampy grounds by currents of wind, and have ultimately fallen on the spot where they were found."

"LODI."—We have received a communication from "Lodi," who is entirely mistaken in his supposition concerning a recent article in our paper. Leaving out a few personal words (inclosed in parentheses) concerning an absent correspondent, we will publish his article if he is willing to subscribe his name to it.

IMMIGRATION.—During the first two months of the present year the State has gained in population, according to the records of arriving and departing passengers by sea and rail. The arrivals by sea and overland, for January and February, were 9,096, the departures, 4,235; leaving a net gaining remaining here of 4,861.

CHOICE VOLUMES.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.

Sales of Farming Lands.

Los Angeles.

SMALL FARMS.—Mrs. Cook, of San Francisco, has just purchased 320 acres of land adjoining the Centinela ranch, about six miles from Santa Monica. This lady informs us that it is her intention to subdivide the land into 10, 20 and 25 acre tracts, which will be sold upon reasonable terms to actual settlers. The territory lying back of Santa Monica is daily growing in attractiveness. Abont 30 villa farm tracts adjoining town have been sold. John D. Young has disposed of a number of 20 and 40 acre tracts of his Ballona lands. Mr. Baldwin is expected to subdivide his Cienega ranch and put it upon the market.—*Santa Monica Outlook.*

COUNTY SALES.—The transactions recorded of real estate during the week, March 2d to 8th inclusive, have been a good average, amounting to $50,138.90, against $47,995. Among the business of the past week we notice 171 acres of the rancho San Juan Cajon de Santa Ana, $2,635.40; two sales of the rancho San Antonio, 196 40-100 acres, $3,411; one sale of the Desnoyers tract, $190; two of the Ballesteros tract, $1 460; one in Tustin City, $1,500; seven lots in the Sanchez tract, $3,360; one sale in Santa Monica, $500; one block in Pomona, $350; and two lots on Boyle Hights, $250.—*Commerciat Reporter.*

A NEW COLONY.—It is rumored that the San Joaquin and Santiago ranches are both sold to Messrs. Sunin & Blancher, of Minnesota, for the purpose of founding a Scandinavian colony.—*Anaheim Gazette.*

Lake County.

Sheriff Ingram was selling land at tax sale last week, quite a crowd of anxious bidders gobbling up everything offered. Two bank cashiers were there. A widow's land was called for sale. A bystander, addressing one of the bankers, said, "Buy that, it's a good piece of land." "I'll help pay her tax," was the answer. The other banker said, "So will I." In less than a minute the tax was paid by bystanders, Sheriff Ingram and Deputy Sheriff Phelan contributing. We are sorry we do not know the names of all who did.—*Lake County Bee.*

IN these days no farmer can afford to be without improved harvesting machinery. Among the best is that manufactured by the McCormicks, of Chicago, for which P. Mohan, 106 Davis St., S. F., is agent.

AMONG the very best of its class is the harvesting machinery manufactured by the old reliable firm of C. H. & L. J. McCormick, Chicago, for which P. Mohan, 106 Davis St., S. F., is sole agent on this coast.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

The general talk is Dobbins' Electric Soap (sold by Newton Bros. & Co., San Francisco). There never was a soap so highly and generally praised. It tells a story of its own merits that cannot be contradicted. Try it.

BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.
DEWEY & Co., Publishers.

UNKNOWN.—We have lately received cash at this office without due explanation, as follows: From Carson, Nev., $4, by express; from Calistoga, $4, by express. The senders will please give full address, date of sending, etc. DEWEY & Co.

BOUND VOLUMES of the PACIFIC RURAL PRESS, from Volume One, are for sale at this office: price $5 per volume for single volumes; unbound $3. There are two volumes per year.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

IN remitting cash to this office, do not send us checks on interior banks, as we generally have to return them by express for collection.

WILL W. B. Peck please send his address to Dewey & Co., 224 Sansome street, S. F., and oblige?

"The Public Lands of California."

The demand for this new work is steadily increasing, and the more widely that its merits are becoming known, its usefulness to everyone is becoming more fully demonstrated. The map of California and Nevada alone is worth more than fifty cents, the price asked for the work, and the fact that a glance at its pages shows the leading products, population, etc., of each county in the State, besides a list of the surveys of United States Land, subject to the homestead and pre-emption laws of Congress; a correct copy of the laws of Congress in regard to locating and holding this land, etc., renders it of inestimable value. Orders sent to Dewey & Co., enclosing fifty cents, will meet with prompt attention, as it will be forwarded immediately post paid.

Our "Handy Map" Premium.

This "Map of California and Principal Part of Nevada" is printed on tinted paper, 15x18 inches. It gives the county boundaries, railroads and principal cities and towns in both States; the principal mountains, streams and the U. S. land districts and township lines in California. Without claiming completeness, it is the latest and one of the most correct issued. Price 50 cents. FURNISHED FREE (until further notice) to every subscriber to this paper who pays for one year in advance.

The Best Agricultural Paper in America.

PORTERVILLE, February 10, 1875.

TO THE EDITORS AND PUBLISHERS OF THE RURAL PRESS:—*Dear Sirs:* I am going to change my residence, and I will take the RURAL PRESS again, when I get settled, and will get back numbers. I can say without flattering you that it is the best agricultural newspaper in America, and I will use my influence in your behalf.
Yours with respect, JOHN MCINTIRE, JR.

Lands and Homes for Sale.

FOR SALE
—BY THE—
COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord
J. VOLLMAR.....S. F.
J. D. BLANCHAR.....Napa
C. MITCHELL GRANT.....
J. REGENSBURGER.....S. F.
A. W. THOMPSON.Petaluma
F. A. KIMBALL....San Diego
I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 40 California Street, S. F

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

Napa Valley, near Napa City,
240 Acres of Land For Sale.

The whole or one undivided half interest, at thirty-two dollars per acre. Fenced in five fields. Living water in every field. Orchard and Vineyard in bearing of choice varieties. Buildings good. Terms easy. A great bargain.

STERLING & THOMPSON,
Napa City, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

MENZO SPRING,

Manufacturer of
Dr. Bly's Patent Artificial Limbs.
OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco
eowbp

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 15, 1876.

We have to chronicle another generally quiet week in trade. Although we have had two or three bright days the ways are not yet mended from the storms, and the full waking up is yet in the futnre. There is still a slight stock of some produce suppliies, because of the impassable roads, bnt there is no disposition to advance prices, because this difficnlty will be soon overcome.

Wheat has been quiet durlng the week. The receipts are light and prices nnchanged.

The course of the Liverpool quotations for Wheat to the Produce Exchange durlng the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	CAL. AVERAGE	CLUB.
Thursday	9s 10d@10s —	10s 2d@10s 8d
Friday	9s 10d@10s —	10s 2d@10s 8d
Saturday	9s 10d@10s —	10s 2d@10s 8d
Monday	9s 10d@10s —	10s 2d@10s 8d
Tuesday	9s 11d@10s —	10s 3d@10s 8d
Wednesday	9s 11d@10s —	10s 3d@10s 8d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 5d@12s 8d	12s 9d@ 13s —
1875	8s 11d@ 9s 5d	9s 4d@ 9s 10d
1876	9s11d@10s —	10s 3d@10s 8d

It will be noticed that duriug the last two days there has been a gain of 1d on the inside figures from Liverpool, but otherwise there is no change.

The Wheat Year.

Eight months of the harvest year of 1875-76 have passed, and the result shows 139 cargoes of Wheat dispatched to England, besides several whole or partial cargoes of Flour to that and other markets. The total product in Wheat represents over 300,000 tons of 2,000 pounds each. The quantity is not so large as was expected in the early part of the season, and is the smallest in five years. Following is a statement of the Wheat cargoes dispatched to March 1st in each season as prepared by the *Bulletin:*

	Cargoes.	Centals.	Value.
July, 1875	9	281,100	$503,400
August	25	899,900	1,968,700
September	19	828,100	1,722,100
October	22	837,300	1,718,600
November	16	612,300	1,265,900
December	19	737,300	1,492,400
January, 1876	14	448,200	888,300
February	15	589,200	1,157,600
Totals	139	5,233,400	$10,717,000
In 1874-75	221	7,209,000	11,342,200
In 1873-74	200	6,294,700	13,561,800
In 1872-73	270	7,748,100	13,721,500

The whole number of Wheat and Flour cargoes dispatched hence to England this season prior to March 1st is 145, while the whole number now afloat is 67.

During the last week there has been very little done for export and very litt'e inquiry for tonnage. The list of disengaged ships is increasing. Wheat freights to Liverpool may be quoted at £2@£2 5s. The British ship *Marmion* has chartered for Wheat to Liverpool at that price.

The features of trade in the European markets are interesting, although there is little life reported. The telegraph review of the *Mark Lane Express*, March 14th, is as follows:

The character of the weather during the past week has undergone no improvement in any part of the country, while at the end of the week it has been altogether rough, stormy and unsettled. Vegetation under so much rain and cold winds has made very little progress, and the wheat plant, which was everywhere reported to look well, will shortly stand in need of dryer days and warmer lands. Holders of wheat evinced little disposition to meet millers' views, and this feeling somewhat contracted operations. It cannot be denied that the present is a period of great depression, as compared with the expectations formed at the time of the harvest. The prices realized for produce must be very disappointing, both to merchants and farmers, and the want of sure foundations whereon to base operations militates much against the probability of any marked improvement. The absence of frost as the season advances tends to keep the market quiet, and the large stocks still known to be in the granary deters speculators from operating in a sufficient degree to influence the course of trade in spite of the temptation to do so, now that the range of prices is so moderate, having regard to the inferior European and American crops. In short, the weather influences will soon be supreme in determining the fnture course of prices, and it would appear that even if the present dullness continues, no great decline can be looked for; whilst with continued adverse weather the probabilities lie in the direction of material improvement.

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Weekly Receipts of Domestic Produce.

ARTICLES.	WEEK FEB. 23.	WEEK MAR. 1	WEEK MAR. 8.	WEEK MAR. 15.
Flour, quarter sacks	28,888	53,954	17,769	49,083
Wheat, centals	87,403	161,897	64,403	37,351
Barley, centals	7,730	9,799	8,165	8,402
Beans, sacks	1,833	1,201	1,831	2 920
Corn, centals	1,884	1,929	53	1,367
Oats, centals	7,019	894	1,056	869
Potatoes, sacks	11,327	11,639	5,508	9,953
Onions, sacks	760	1,431	738	434
Wool, bales	181	102	60	280
Hops, bales	32	210	5	25
Hay, bales	1,604	1,277	541	2,183

Bags—Wool Sacks are now selling freely at quotations. There are also reports of large transactions in Wheat Bags. We hear it rumored that Friedlander has taken 500,000 22x36 hand sewed Wheat Bags, to arrive, at 12@12¼c. There are reports of other transactions at these figures.

Barley—There have been rather freer sales of Barley during the week, and the best grades are in good inquiry. We note sales: 400 sks Bay Brewing, $1.32½ per ctl; 400 do Coast Feed, $1.27½, sliver; 500 do Bay do, $1.27½, gold; 1,000 sks choice Coast Feed, $1.25, half silver; 800 sks choice Bay do, $1.25; 300 sks poor Coast Chevalier, $1.25, gold; 1,000 sks good Coast Feed, $1.25; 400 do good Bay Brewing, $1.32½; 1,500 sks choice Chevalier, for New York, private; 2,000 do Bay Brewing, for local use, $1.32½ per ctl.

Beans—Beans are mainly unchanged. There may be noted a slight improvement in large Butter Beans.

Corn—There has been little doing in Corn. Prices for finest are advanced. Transactions are as follows: 300 sks large White, $1.15, half silver; 400 sks large Yellow, $1.15, half silver; 200 sks good White, $1.17½ per ctl.

Dairy Produce—Butter shows a slight advance, owing to the present cutting off of supplies by the bad roads. The supply of new Cheese is not equal to the demand. Eggs are plenty and lower.

Feed—Feed prices are generally stationary. The finest Hay may again be advanced to $19, but there is very little up to this in quality. We note sales of 21 tons wet Hay at $14; $25 tons fair. $13.50; 45 do ordinary Wheat and Wild Oat, $14; 51 do good Wheat and Oat, $16; 42 tons good Wheat, $18; 23 do coarse do, $16 per ton.

Hops—The receipts of Hops are very small. There is a shipment Eastward of 120 bales good Hops at 9@ 10c. The price in our tables is nominal. The New York market for the week ending March 3d is reviewed by Emmett Wells as follows:

"The continued heavy shipments abroad has caused an advance of a cent a pound on all descriptions of new Hops. The market at this writing shows strong indications of a further advance, though there is really nothing in the London news to warrant it. The feeling is purely speculative, the advance being based entirely upon the supposed short supplies here, and the probable further wants of England, coupled with a fear that we shall not be able to meet a continued heavy foreign call. The Englisb brewers—it should be remembered—have bought freely of our Hops on account of the low price; not, as many suppose, from necessity. Germany, France and Belgium have and will continue to supply England's deficiency in her own crop of 1875. The hops she has taken so freely from us will not be used until next season, when they become what are termed 'Yearlings;' therefore, as England has not been buying from us for immediate use, it's a question as to whether she will, at this late day, submit to much of an advance in the price. The shipments from this time out will, therefore, tell the story. We certainly have no more choice Hops to spare at late current prices."

Oats—Oats are quiet and the demand is light. We note sales of 150 sks fair Feed at $2.07½, silver; 240 sks inferior, considerably mixed with Barley, by a miller at $1.65. Choice Oats for milling are quoted at $2.25 per ctl.

Onions—Onions are very plenty and lower. We note sales of inferior Oregon at 80c; 100 sks ordinary Oregon, $1; 200 sks Union City, $1.50@1.62½ per ctl.

Potatoes—Potatoes sustain a farther advance for best qualities. Selections are now sold as high as $2.25 per ctl. We note sales: 1,180 sks Sacramento river, in lots, at $1.87½@2; 124 do good Tomales, $2; 100 do choice Petaluma, $2.12½; 400 sks fair Humboldt, at $1.90; 300 do choice Petaluma, $2; 200 sks choice Pigeon Point, $2.20; 200 sks choice Petaluma, $2.20; 579 sks Sacramento river, $1.71¼, silver; 120 do choice Bay, $2.12½, gold, per ctl.

Provisions—Fresh Beef is firm and fine grades are scarce. Mutton is abundant and lower. Pork is high and hard grain or dairy fed hogs are scarce. California Pork products are firm and advancing. Eastern Hams are plenty and are reported selling at cost of importation. The prices at the Eastern supply points are reported high and advancing.

Vegetables—Cabbages are in light supply and are higher. Marrowfat Squash is now quoted at $25 per ton for the best. Green Peas have declined to 6c ₱ lb, and Asparagus to 25c ₱ lb. There is a little Rhubarb coming in at 20c ₱ lb.

Wheat—The receipts of Wheat are coming in very slowly. Prices are unchanged and the market is quiet. We note sales: 3,000 sks fair Shipping, $1.80; 1,000 do, Weevily, $1.75; 1,440 sks good Shipping, $1.80; 840 do ordinary do, $1.72½; 2,400 sks fair Shipping, $1.80; 1,200 sks fair Milling, $1.85 per ctl.

Wool—There have been receipts of new clip. We hear of a sale of 20 bales at 17¼c. A nominal quotation for Spring Wool is 17@18c. Fall clip is lifeless. In our telegraphed Eastern markets last week the amount on hand was stated at 2,500,000 *bales;* it should have been *pounds*. The Eastern markets this week are as follows:

NEW YORK, MARCH 11.—Bot little favorable can be said in reference to the Wool market at present, it being in a deplorable condition. Sales for the week are: 211 bales Cape, at about 37c; 18,000 lbs Fall California, 17@18c; 1,000 lbs scoured do, 60c; 1,000 lbs Oregon, 29c; and 35,000 lbs Fall California, 150 bales Spring, on private terms.

BOSTON, MARCH 11.—The wool trade has been firm during the past week. The sales amount to 1,129,300 lbs, of which a large portion was California. The tone of the market remains unchanged. The same uncertain feeling prevails regarding credits that has been before noted. Sales of California Wool comprise 691,000 lbs, but prices are easier in consequence of a desire of holders to close up stocks. Sales of Spring have been at 20@32½c, and of Fall, 16@21c. Transactions in Fleece Wool are quite moderate, but prices remain about the same.

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	$18 00
Rough refuse, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refuse, M	20 00
Rustic, ₱ M	32 50
Rustic, refuse, ₱ M	24 00
Surfaced, ₱ M	30 00
Surfaced refuse, ₱ M	20 00
Flooring, ₱ M	28 00
Flooring, refuse, ₱ M	20 00
Beaded flooring, ₱ M	30 00
Beaded floor, refuse, M	25 00
Half-inch Siding, M	22 50
Half-inch siding, ref, M	16 00
Half-inch, Surfaced, M	25 00
Half-inch Surf. ref., M	18 00
Half inch Battens, M	22 50
Pickets, rough, ₱ M	13 00
Pickets, rough, p'ntd	18 00
Pickets, fancy, p'ntd	25 00
Shingles, ₱ M	3 00

PUGET SOUND PINE—Retail Price.

Rough, ₱ M	22 50
Fencing, ₱ M	22 50
Flooring and Step, ₱ M	32 50
Flooring, narrow, ₱ M	35 00
Flooring, 2d quality, M	25 00
Laths, ₱ M	3 50
Furring, ₱ lineal ft	—

REDWOOD—Retail.

Rough, ₱ M	22 50
Rough refuse, ₱ M	18 00
Rough Pickets, ₱ M	18 00
Rough Pickets, p'd, M	20 00
Fancy Pickets, ₱ M	30 00
Siding, ₱ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refnse, ₱ M	25 00
Half-inch surfaced, M	32 50
Rustic, No. 1, ₱ M	40 00
Battens, ₱ lineal foot	½
Shingles, ₱ M	3 2

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., March 15, 1876.

BEANS.

Bayo, ₱ ctl	3 50@3 67½
Butter	1 75@2 10
Pea	1 75@2 12½
Pink	2 00@2 50
Sm'l white	1 70@1 85

BROOM CORN.

Common, ₱ lb	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ lb	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	22½@ 26
Point Reyes	25 @ 27½
Firkin	25 @ 27½
W'st'n Reserve	15 @ 20
New York	20 @ 25

CHEESE.

Cheese, Cal., lb	14 @ 16
do Old	10 @ 15
Eastern	15 @ 20

EGGS.

Cal. fresh ₱ doz	25 @ 27½
Ducks'	— @ 27½
Oregon	22½ @ 25
Eastern	20 @ 25

FEED.

Bran, per ton	— @22 50
Corn Meal	29 00 @30 00
Hay	15 00 @18 00
Middlings	32 50 @— —
Oil cake meal	— @37 50
Straw, ₱ bale	— @ 65

FLOUR.

Extra ₱ bbl	5 75 @6 12½
Superfine	4 75 @5 00

FRESH MEAT.

Beef 1st quality lb	7 @ 9
Second do	6 @ 7
Third do	5½ @ 6
Spring Lamb	9 @ 10
Mutton	5 @ 8
Pork, undressed	7¾ @ 8
do, dressed	10 @ 10½
Veal	5 @ 7
Milk Calves	8 @ 8½

GRAIN, ETC.

Barley, feed ctl	1 20 @ 1 25
do brewing	1 30 @— —
Chevalier	1 25 @ 1 40
Corn, White	1 15 @ 1 25
do Yellow	1 15 @ 1 25
Oats	2 00 @ 2 10
Milling	— @ 2 25
Rye	1 65 @ 1 75
Wheat shipping	1 80 @ 1 85
do milling	1 85 @ 1 92½

HIDES.

Hides, dry	15 @ 16½
do wet salted	7 @ 7½

HONEY, ETC.

Beeswax, per lb	25 @ 27½
Honey in comb	18 @ 22½
do Strained	6 @ 12½

HOPS.

New crop	10 @ 12

NUTS—Jobbing.

Almonds'd shell lb	8 @ 10
do, soft shell	16 @ 18
Brazil do	14 @ 16
Cal. Walnuts	7 @ 11
Chile Walnuts	11 @ 12½
Peanuts per lb	9 @ 10
Filberts	15 @ 16
Pecanuts	17 @ 18

ONIONS.

Union City ctl	1 50 @ 1 75
Stockton	1 50 @ 1 75

POTATOES.

Petaluma, ₱ ctl	1 87½@ 2 25
Salt Lake	—@— —
Sao River	1 50 @ 1 75
Humboldt	1 75 @ 2 25
Early Rose	— @ 3 00
Sweet	— @ 3 50

POULTRY & GAME.

Hens, per dz	8 50 @ 9 50
Roosters	8 00 @10 00
Broilers	8 50 @9 50
Ducks, tame, dz	11 00 @13 00
do Mallard	— @5 00
do Canvass	— @5 00
Geese, per pair	2 50 @3 50
Wild Gray dz	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, lb	22 @ 24
do Dressed	24 @ 25
Quail, per doz	— @2 50
Snipe, Eng., doz	— @3 00
Doves, per dozen	50 @ 75
Rabbits	1 00 @1 50
Hare, per doz	2 00 @3 00

PROVISIONS.

Cal. Bacon, L't, lb	15½ @ 16
do Medium	16 @ 17
do Heavy	— @ 15½
Lard	15 @ 17
Cal. Smoked Beef	9 @ 10
Eastern do	— @ 12½
East'rn Should'a	— @ 10
Hams, Cal	14 @ 14½
do Armour	15½@ 16
do Worster's	16 @ 16½
do Dupee's	16 @ 15½
do Davis Bros'	16 @ 16½

SEEDS.

Alfalfa, Chile lb	8½@ 11½
do California	11 @ 12
Canary	20 @—
Clover Red	— @ 25
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3¼
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	3 @ 3½
do, Brown	3 @ 3½
Rape	7 @ —
Ky. Blue Grass	33 @— —
do 2d quality	29 @— —
do 3d quality	— @— —
Sweet V Grass	— @— 75
Orchard do	30 @— 35
Red Top do	— @— 25
Hungarian do	8 @— 12
Lawn do	50 @— —
Mesquit do	20 @— 25
Timothy	11 @— 13

TALLOW.

Crude, ₱ lb	6¾@ 7½
Refined	8¾@ 9

WOOL, ETC.

FALL—	
Seedy, ₱ lb	11 @ 12½
Choice free	12 @ 18
Burry	9 @ 11
Oregon	— @ —

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., March 15, 1876.

POULTRY, GAME.

Chickens	75 @1 00
Hens	75 @1 00
Eggs, Hens	55 @ 60
do Ducks'	— @ 60
do Farallones	— @ —
Turkeys, ₱ lb	20 @ 25
Ducks, each	1 00 @1 25
Geese, wild, pair	50 @1 00
Tame, ₱ pair	3 00 @4 00
Snipe, ₱ doz	1 25 @1 50
do English	— @3 00
Quail, per dozen	1 75 @2 00
Prairie Ch'k s, pr	— @—
Hares, each	25 @ 50
Rabbits, each	15 @ 20
Squirrels do	— @ 15
Hams, Cal. ₱ lb	16 @ 20

FISH, MEATS, ETC.

Flounder ₱ lb	15 @ 35
Salmon, ₱ lb	15 @ 25
Smoked	— @ 8
Cod Fish, lb	12 @ 15
Lake Big. Trout	— @ 30
Beef, tend, ₱ lb	15 @ 18
Corned, ₱ lb	8 @ 10
Smoked, ₱ lb	— @ 15
Porter House St'k	— @ 20
Sirloin do	12 @ 15
Round do	8 @ 10
Pork, rib, etc., lb	12 @ 12½
Chops, do, ₱ lb	15 @ —
Veal, ₱ lb	10 @ 15
Outlet, do	15 @ 25
Mutton-chops, lb	10 @ 12
Leg Mutton, ₱ lb	10 @ 15
Lamb, ₱ lb	20 @ 22½
Antelope	15 @ 20
Tongues, beef	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, lb	12½@ —
Bacon, Cal., ₱ lb	16 @ 20

FRUITS, VEGETABLES.

Apples, pr lb	5 @ 8
Pears, per lb	5 @ 12½
Apricots, lb	— @ —
Peaches, lb	— @ 25
Plums	— @ —
Pine Apples, each	50 @1 00
Lsdy Apples	— @ 25
Grapes	— @ 25
Bananas, ₱ doz	75 @— —
Muskmelons	— @— —
Watermelons	— @— —
Blackberries	— @— —
Cal. Walnuts, lb	— @ 25
Oranber'es, Org.,	— @— —
do Eastern qt	— @ 20
Huckleberries	— @— —
Strawberries, lb	— @— —
Raspberries, lb	— @— —
Gooseberries	— @— —
Currants	— @— —
Cherries, ₱ lb	— @— —
Nectarines	— @— —
Pomegranates	— @— —
Oranges, ₱ doz	50 @ 75
Lemons	75 @— —
Limes, per doz	20 @ 25
Figs, dried Cal.	12½@ 15
Figs, Smyrna, lb	25 @ 35
Asparagus, lb	30 @ 40
Artichokes, doz.	75 @1 25
do Jerusalem	— @ 8
Beets, ₱ doz	20 @ 25
Potatoes, ₱ lb	2 @ 3
Potatoes, sweet	— @ 6
Broccoli, each	10 @ 15
Cauliflower	10 @ 15
Green Peas ₱ lb	— @ 10
Cabbage, per hd	10 @ 12½
Oyster Plant, hn	— @ 12½
Carrots, ₱ doz	— @ 25
Celery, ₱ dz	75 @1 00
Cress, ₱ doz bun	25 @ 25
Onions	3 @ 4
Turnips, ₱ doz bunches	— @ 25
Brussels Sprouts	6 @ 8
Esohalots	— @ 25
Dried Herbs, doz	30 @ 50
Garlic ₱ lb	12½ @ —
Green Corn, doz	— @— —
Lettuce, ₱ doz	25 @— —
Mint, ₱ bunch	— @ 12½
Mushrooms, ₱ lb	— @ 25
Horse radish, ₱ lb	15 @ 25
Okra, dried, ₱ lb	— @— —
Pumpkins, ₱ lb	5 @ 6
Parsnips, doz	— @ 25
Parsley	12½ @ —
Pickles, fresh, ₱ lb	— @— —
Radishes, doz	20 @ 25
Sage	— @ 25
Marrowfat, do	1½ @ —
Hubbard, do	— @— —
Mangoes, ₱ doz	— @— —
Spinage ₱ bskt	— @ 12½
Rhubarb	— @ 30
Green Chilies	— @ 25

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., March 15, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	— —@— —
Tahiti, do	— —@— —
Cal. do	25 00@55 00
Limes, Mexican, ₱ M	— —@15 00
Malaga Lemons, ₱ bx	— —@— —
Cal. ₱ 100	1 00@ 2 50
do Sicily ₱ b'x	12 00@14 00
Bananas, ₱ bnch	2 50@ 4 00
Cocoanuts, ₱ 100	7 00 @ 9 00
Pineapples, ₱ doz	7 00 @8 00
Apples, ₱ box	1 50 @— —
do Choice	2 00 @3 25
Blackberries	— @— —
Figs	— @— —
Huckleberries	— @— —
Strawber's ₱ bch	— @2 00
Pomgranates	— @— —
Raspberries	— @— —
Currants, ₱ oh	— @— —
Quinces ₱ bx	— @— —
Cranberries ₱ bbl	13 00@14 00
Peacnes, ₱ bx	— @— —
Pears, ₱ bx	— @— —
do Choice	— @— —
Crab apples, ₱ bx	— @— —

DRIED FRUIT.

Apples, ₱ lb	9 @12½
Pears, ₱ lb	8 @13
Peaches, ₱ lb	13½@15
Apricots, ₱ lb	14 @15
Plums, ₱ lb	7 @ 8
Pittod, do ₱ lb	17 @20
Raisins, imported	3 25 @3 75
Cal. Raisins	8 @ 12½
Black Figs, ₱ lb	5 @10
White, do	8 @10
Prunes	12½ @17
Citron	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Asparagus ₱ lb	—@25
Beets ₱ ctl	@ 5
Cabbage, ₱ 100 lb	—@1 50
Carrots, per ton	12 50@15 00
Cauliflower, doz	50@1 00
Celery, doz	50 @75
Garlic, ₱ lb	— @ 6
Green Peas ₱ lb	5 @ 6
Green Corn ₱ doz	—@—
Squash ₱ box	—@—
Marrow Squash, tn	20 00@25 00
Artichokes, ₱ doz	—@—
String Beans, ₱ lb	—@—
Lima Beans	—@—
Parsnips	—@—
Shell Beans	2 @ 3
Peppers, green, bx	75 @100
Okra	4 @ 5
Cucumbers, ₱ box	—@—
Tomatoes, box	—@—
Egg Plant, bx	—@—
Rhubarb	—@ 20
Lettuce	—@—
Turnips, pr ton	—@—
Mushrooms, ₱ lb	—@ 20

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., March 15, 1876.

BAGS.

Eng. Stand Wht	11½@12
Neville & Co's	— @ —
Hand Sewed	11½@12
24x36	12 @12½
24x40	— @—
Machine do 24x40	12½@13
" " 23x40	12 @12½
" " 22x40	11 @11¾
" " 22x36	11 @11½
Flour Sacks ½s	9½@11
" " ¼s	6½@ 7
" " ⅛s	4½@ 5
Hessian 60-in	12½@14½
do 45-in	9¾@ 9½
do 40-in	8 @ 8½
Wool Sacks, 3½ lbs	45 @50
do 4 "	50 @52½
Stand. Gunnies	— @15
single seam no	— @—
Bean Bags	7½@ 8
Barley Bags 24x36	11¾@12
do 23x40	11½@12
do 24x40	12 @12½
Oat Bags, 24x40	12 @12½
do 28x36	— @13½

CANNED GOODS.

Ass't'd Pie Fruits in 2½ lb cans	2 75 @ 3 00
do Table do	3 75 @ 4 25
Jams & Jellies	4 25 @— —
Pickles ½ gl	— @ 3 50
Sardines, qr box	65 @ 1 90
do hf boxes	3 00 @— —

COAL—Jobbing.

Anstralian, ₱ ton	— @10 50
Coos Bay	8 00 @10 00
Bellingham Bay	— @ 8 50
Seattle	9 25 @10 50
Oumberl'd	— @— 18
Mt. Diablo	6 25 @8 25
Lehigh	— @22 00
Liverpool	10 00 @11 00
West Hartley	— @14 00
Scotch	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl	10 50 @ 2 00
Charcoal, ₱ sk	75 @— —
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per lb	22½@— —
Guatemala	— @ 22½
Java	— @ 31
Manilla	— @ 21½
Ground in cs	25 @— —
Chicory	27 @— —

FISH.

Sac. Dry Cod, new	4 @ 4½
cases	6 @ 7
do boneless	8½@ 10
Eastern Cod	7½@ 8
Salmon in bbls	8 50 @9 00
do ½ bbls	4 50 @5 00
do 2 lb cans	2 25 @2 30
do 1 lb cans	1 25 @1 30
do Col. R. ½ lb	5 00 @5 50
Pick. Cod, bbls	22 00 @— —
do ½ buls	11 00 @— —
Mack'l, No. 1, ½ bbls	9 00 @11 00
" Extra	— @12 00
" in kits	1 90 @2 00
" Ex mess	4 00 @4 50
" Ex mess, ½ bs	— @12 00
Pic'd Herr'g, bx	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Land Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Pulu	1 @ 9

NAILS.

Assorted size, keg	3 75 @4 00

OILS.

Pacific Glue Co	50 @ 65
Neat F't No. 1	1 00 @ 90
Pure	— @— —
Castor Oil, No. 1	— @1 25
Baker's A A	— @1 40
Cocoannt	55 @ 60
Olive Plagniol	5 50 @5 75
do Possel	4 75 @5 00
Palm lb	9 @— —
Linseed, raw	80 @— —
do boiled	— @ 75
China nut in os	70 @ 75
Sperm, crude	— @1 40
do bleached	1 90 @2 25
Coast Whales	17½@ 50
Polar, refined	— @— —
Lard	— @— —
Oleophine	— @ 28
Devoe's Bril't	— @— —
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive	—@3 50
Downer Kerose'e	40 @— —
Elaine	40 @— —
Gas Light Oil	23 @ 25

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 2
Putty	4 @ 5½
Chalk	2½ @ 2¾
Paris White	2¾@ —
Ochre	3 @ 5
Venetian Red	3½@ 5
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal. White & tints	2 00 @2 40
Green, Blue & Oh Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 80

RICE.

China No. 1	6 00 @6 25
Hawaiian, ₱ lb	— @ 8
Carolina, ₱ lb	10 @ —

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	22 50@25 00

SOAP.

Castile ₱ lb	10 @ 11¼
Common brands	4½@ 6
Fancy do	7 @ 10

CANDLES.

Grant's	16½@ 17
Mitchell's	20 @ 22

SPICES.

Cloves ₱ lb	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmegs	95 @ 97½
Whole Pepper	14½@ 17½
Pimento	16 @ 17
Gr'nd Allsp'ce	@1 12½
do Cassia do	—@1 50
do Cloves do	—@1 50
do Mustard do	—@1 20
do Ginger do	—@1 00
do Pepper do	—@1 00
do Mace do	—@2 00
Bowen's Pure Ground ₱ lb	— @ 50

SUGAR, ETC.

Cal. Cube per lb	— @ 12¾
Circle A crusned	— @ 12½
Powdered	— @ 12¾
Fine crushed	— @ 12¾
Granulated	— @ 11¾
Golden C	— @ 11
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 70
Hawaiian Molasses	25 @ 27½

TEA.

Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gnnpo'der, Cant	75 @1 00
do Pingsuey	50 @ 90
do Moyune	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moynne	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½ & 1 lb paper	30 @ 55

TOBACCO—Jobbing.

Bright Navye	50 @ 65
Dark do	50 @ 55
Paces Tin Foil	— @ 75
Gregory	70 @— —
Dw't Twist	65 @ 75
Light Pressed	70 @ 80
Hard do	50 @ 60
Conn. Wrap'r	40 @ 60
Penn. Wrapper	20 @ 45
Ohio do	15 @ 20
Virgi'a Smok'g	45 @1 00
Fine cut chew'g, gr	8 50 @9 50
Fine cut chewing, huc'ts, ₱ lb	75 @—
Banner fine cut	— @9 00
Cal Smoking	37 @1 00

**TURPEN

Sheep and Wool.

Suggestions for Shearers.

A sheep husbandman of Colusa county makes the following pointed suggestions to his fellow herders through the *Sun:*

The time for shearing is at hand and hard times and a hit a pound for wool stares us in the face, as well as the qnestion of what we are to do with the snrplns sheep when this spring's increase has been added to the stock on haud. It is evident that we must build a woolen factory in this section and thereby make a market for our wool, but that takes time. Labor, by the orce of natural canses, is lower, aud we mnst curtail expenses in the price paid herders, and more especially in the price to be paid for shearing. Five cents a head in spring and six cents in the fall should be the outside figure that should be paid for shearing, and the very best work required at that. Be certain also to require your shearers to observe the same rule your plowman does, to wit: Commence and finish one furrow the whole length of the land, instead of a "cut and kiver" hack here and there sort of a way. Then your poor sheep, as well as the wool, will not he hacked to thribs, as the manufactnrer would call it. Such wool onght not to realize for the owner over a hit a pound, and a short bit at that. We have been feeding hay and barley to about as many horses as we have shearers, and paying seven cents for 80 sheep a day, which, counting feed for man and horse, is about $6.50 a day, while the very best skilled mechanics are glad to get $2.50 and board per day—and that after giving five years to learn a trade. Divide your shearing pens off so that one or at most two men will be at work in a pen. Send a wagon for, and take the shearers to the next place; use them well and make them use the poor sheep well. Pay them such a price only as the wool market will pay you, and thereby make them see that they are in company with you and that their interests and yours are the same. Get a wool press in your neighborhood and put your wool up in the best possible manner. Shear only lambs and mutton sheep in the fall; keep sheep fat on good feed instead of too much dogs and bad corrals; go into the winter with sheep fat on stubble, with all the straw and hay you can heg or buy in the vicinity; plant as much Chile clover as you can flood by any process; sow wheat and oats for hay, thereby making your lands richer instead of poorer by feeding at home; raise only the very best of sheep; sell off to go over to the Territories all your roughest sheep, then yon will find that with less but *better* help you will get more wool which will sell for a higher figure; and you can keep them on one-fourth the land it now takes. We must make these reforms or the sheriff will be after us.

The Cause of the "Sheepy" Taste in Mutton.—Almost every person who feels competent to assign a reason for the "sheepy" taste in mutton, will attribute this peculiarity to a different cause than any that has been given by others. Thomas P. Janes writes that the impression is prevalent, even among experienced sheep raisers, that the peculiar "sheepy" taste sometimes found in mutton is due to the contact of the wool with the meat. This is a mistake which has occasioned much prejudice against mutton as food. The true cause of this taste or odor is to he found in delay in disemboweling the carcass. The intestines should be removed at the earliest possible moment after life is extinct, and before the removal of the pelt. If the intestines are allowed to remain until the pelt is taken off the gases emitted from them will be disseminated through the flesh and produce the objectionable taste and odor. If proper attention is paid to butchering well-fatted sheep, there will be nothing, either in odor or taste, to offend the most fastidious. Properly served lamb or muttou on the table furni-hes a most wholesome, delicate, delicious and nutricious food, which should largely supplant the gross hog meat usually consumed by farmers.—*Practical Farmer*

Origin of Railroad Gauges—Different Versions.—An eminent engineer states that the origin of railroad gauges occurred as follows: George Stephenson adopted the four feet nine inches gauge for the reason that it was used in all the horse vehicles in England; and when the parts of the first locomotive were ready, and were put together, owing to some unexplained cause it proved to be only four feet eight and one-half inches in gauge, and lo! the whole railway world have followed the pattern thus produced, and hence our present standard. A correspondent of the *Scientific American* writes that journal as follows: "My hook of reference says that the gauge was originally five feet, and the flange of the wheel was on the outside. That not working satisfactorily, the flauge was changed to the inside, which makes the measurement four feet eight and one-half inches." Another correspondent of the same journal says: "The first railroads were constructed for coal traffic, and were of the same gauge as the colliery tramways, four feet eight and one-half inches; and the latter are so old that no one can now tell why this width was chosen."

A Triple Railway.—A third set of rails is to be laid on the Erie road from Elmira to Buffalo, to allow cars of the Lehigh Valley to be run through.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for ssle a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES,

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,

P. O. Box, 722. 516 Battery Street.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, [W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hnndred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhuharh and Asperagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washiugton street.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, rangfrom $3 per hundred upward. A liberal discount made for large orders. For inrtner information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS; all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Luisaute.

Chestnut: Marron de Lyon and Combale.

Walnut: Præparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Evor bearing Raspherrics, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

100,000 BLUE GUM TREES

FOR SALE.

Grown in open grouud and of most excellent quality—FAR SUPERIOR TO ANY BOX GROWN PLANTS—offered at Greatly Reduced Rates.

500,000 SEEDLINGS AND BOX GROWN TREES

In fine order, at ten and fifteen dollars per thousand. All trees delivered on wharf in San Francisco at nursery rates. We wish it distinctly understood our trees for forest planting are RESPONSIBLE NURSERY STOCK. Address

W. A. T. STRATTON,

PACIFIC FOREST TREE NURSERIES,

Petaluma, Cal.

BAY NURSERY,

OAKLAND, CAL.

Lock Box, - - - 331.

JAMES HUTCHISON, Proprietor.

[Established 1852.]

Has for sale an Immense Stock of EVERGREEN TREES, SHRUBS and FLOWERING PLANTS at GREATLY REDUCED PRICES. Monterey Cypress Seedlings from two and a half to five dollars per hundred. Two and three year plants two to six feet, twelve and a half to twenty-two dollars per hundred. Chinese Arbor Vitæ, twelve to sixteen inches, eight dollars per hnndred.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camellias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

ROSES 700 SUPERB VARIETIES ROSES. Half a Million Greenhouse Plants. Mailing Plants a Specialty. Illustrated Catalogue Free. E. Y. TEAS & CO. Richmond Ind.

BLOOMINGTON NURSERY, F. K. Phœnix, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

W. R. Strong, Seedsman. Established 1857. 1876. Robt. Williamson, Nurseryman, Established 1865.

SEEDS. W. R. STRONG & CO. TREES.

S. F. Office, 418 & 420 Clay St., Sacramento Office, 8 & 10 J St., Nursery Grounds, Sacramento Co.

GREAT REDUCTION IN SEEDS.

Seeds heretofore retailed by all dealers at Ten cents per paper, we will now furnish at Five cents. They will be forwarded by mail, postpaid, to any part of the United States without extra charge (except on heavy Seeds, such as Peas, Beans and Corn; on which postage will be added). This will cover Vegetable and Flower Seeds. Also, a great reduction on all higher-priced papers. Money should always accompany orders, and may be forwarded in registered letters, or by postal orders at our risk. Our assortment is probably the finest on the Coast.

Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, W. R. STRONG & CO., House in San Francisco, STRONG & WILLIAMSON.

ALFALFA a Specialty, and furnished to the trade, or in small quantities, at lowest possible rates.

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

Seedsmen.

SEEDS.

If you want Seed that you can depend upon as to variety and freshness, why not send direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen? As we grow our seeds we guarantee them fresh and true to name. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Trees, Shrubs, Flowering Shrubs, and Greenhouse Plants, Cabbage, Onion and Cauliflower Plants,

Large assortment of BULBS from Holland. Address all orders or letters of inquiry to

SEVIN VINCENT & CO.,

607 Sansome St., San Francisco.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

Our Combined WHOLESALE List of

EVERYTHING FOR THE

GARDEN!

(Seeds, Plants, Florists' Requisites, etc.)

For the TRADE ONLY, mailed free on application.

Peter Henderson & Co.

35 Cortlandt Street,

NEW YORK.

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes. They "sow like a charm:" *no packing* of seed in the hopper, *no crushing* it, *no pausing* or *waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, *no "skips," no noise, no equal!* The Double Wheel Hoe works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 in a season. Finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable Combined Machine possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our New Horse Hoe, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. We must have a Live Agent in Every Town.

LIBERAL ADVANCES ON CONSIGNMENTS.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a compaulon in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL.

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

DURYEA'S SATIN GLOSS STARCH

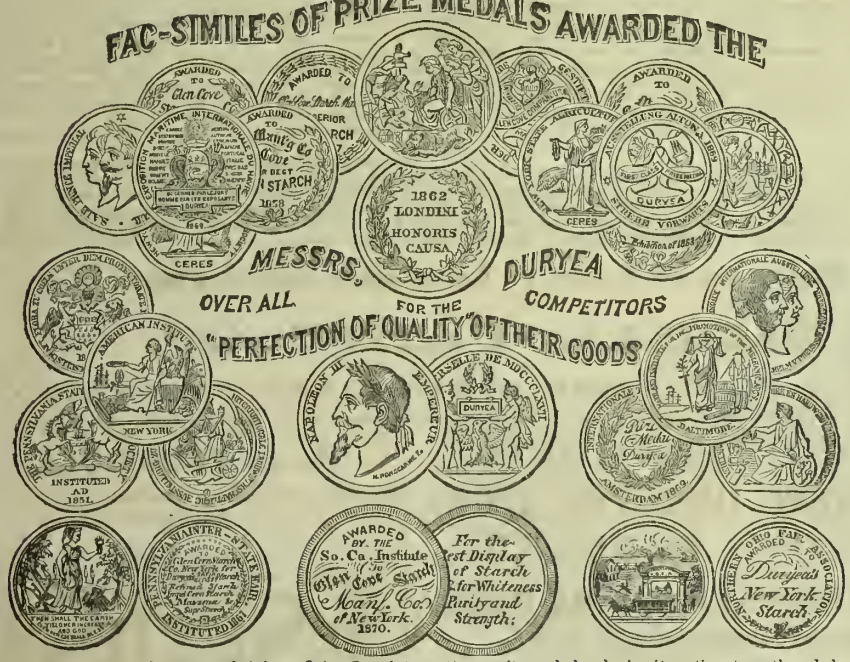
AND

DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

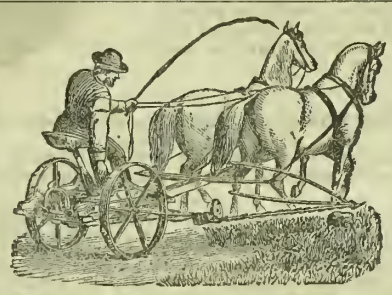
For Sale by All Grocers.



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast,

San Francisco, California.



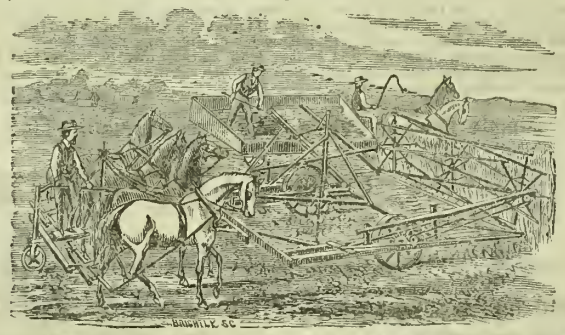
Buckeye Mower and Reaper.

The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merits. They will do better work and will outlast two of almost every other make of machine.

Farmers, BUY A BUCKEYE in preference to all others.

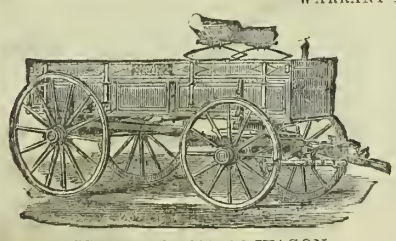
With Adjustable Reels. IRON WHEELS.



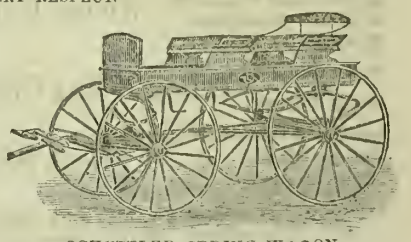
SHORT FRAMES. Springs to raise Cutter-bar.

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.



SCHUTTLER FARM WAGON.



SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

MARCUS C. HAWLEY & CO.,

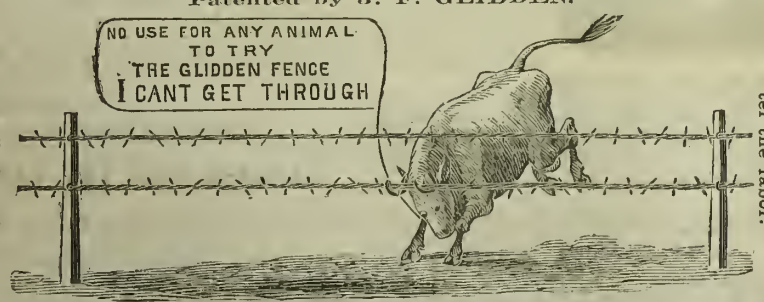
San Francisco and Sacramento, Sole Agents for the Pacific Coast.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all kinds.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel peppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞ Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

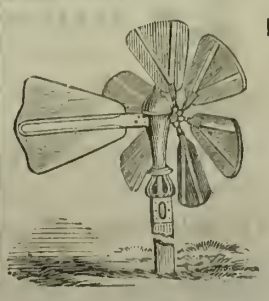
GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Ca

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

$5 to $20 Per Day at home. Terms free. Address G. STINSON & Co., Portland, M. | **Dewey & Co.** {224 SANSOME St.} **Patent Agt's.**

BEFORE PAINTING YOUR HOUSES

Send for Sample Card and Circular and Carefully Examine the

AVERILL CHEMICAL PAINT,

MIXED READY FOR USE.

This Paint is prepared in liquid form, READY FOR THE BRUSH. It requires no addition of oil or spirits. It is composed of the best materials known to the trade—Pure Linseed Oil, Strictly Pure White Lead, Pure Zinc, and the finest of coloring matter for tinting. It is the BEST, CHEAPEST, MOST DURABLE AND BEAUTIFUL PAINT IN THE WORLD. Is just what is wanted by every farmer, mechanic and everybody who has a house, fence, barn, or wagon to paint. Requires no skilled labor, as any one can apply it who can handle a brush. It is put up in cans of any required size, from a quart to five gallons, and is SOLD BY THE GALLON. It gives a firm, elastic and brilliant glossy finish, and will neither crack, peel or wash off, like most paint in common use, but is proof against rainstorms and all action of the elements. Buildings painted with this paint five years ago look fresh and like new to-day and will need no more paint for years. Of no other paint can this be said and proved.

The Averill Chemical Paint Company supply a long-felt want. They not only furnish a Paint more lasting, handsomer, and at the same time cheaper than the best of others, but it is in a liquid form—white and all the fashionable and most exquisite shades—ready for the brush. So that farmers, in fact everybody, can be their own painter if necessary. Indeed, all the buildings upon which the Averill Chemical Paint has been applied, are marvels of beauty.—*Christian Union.*

We know of no subject of such importance to householders as that of a good, handsome, durable paint for their dwellings. Within the past few years we have watched the progress of the Averill Chemical Paint and have had frequent opportunities to test it fully. We think it just the article to supply the need, and give it our hearty endorsement.—*N. Y. Independent.*

From the Thousands of Testimonials sent us, we select the following, which we present for your careful consideration:

A PAINT FOR FARMERS.—Prof. J. B. Turner, Jacksonville, Ill., is a man of great practical knowledge and experience; hence, we attach a great deal of value to the following, from his pen, which we find in the *Prairie Farmer:*

"Some two years ago I sent for and got from a barrel to a barrel and a half of Averill Chemical Paint, of light dun color, which I thought would suit me well enough for all work—houses, doors, blinds, fences, bee-hives, wagons, tools and all. I put two coats upon my residence here, and run over three or four of my smaller farm houses on my farms. With what was left I painted my bee-hives, wagons, wheelbarrows, rollers, harrows, fences, etc., etc., and on all these buildings, implements, tools, gates, etc., the paint is as hard and glossy to-day, so far as I can see, as it was a month after it was put on, and bids fair to hold its own at least for five years to come, (if not ten of them,) better than ordinary white lead and oil does for even two years.

"I have watched it now for about two years with interest and care, and have never found a single spot where it peeled, cracked, or chalked off, as our other paints do. Others who have used this paint like it equally as well. But the point is, I can take one and the same keg and brush, and go over all my buildings, wagons and tools, with no needless waste of paint, brushes or time. It is quite as good for inside finish, as it leaves a coat that shines and washes like glass."—*Moore's Rural New Yorker.*

THE AVERILL PAINTS.—In reply to some inquiries of our readers, we would state that we have given these paints, prepared by the Averill Chemical Paint Company, a full trial, and they appear to possess all that is claimed for them; spreading easily, adhering well, drying soon, and imparting handsome shades of color to the surface covered. Farmers and others who do their own painting, may avail themselves of the convenience of purchasing these paints, of any desired shade, already mixed for use, at a very reasonable price.—*Cultivator and Country Gentleman.*

PLACERVILLE, October 7, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your letter I have to state that for more than six years I have dealt in and used your paint. I have during that time carefully observed its application and use, and from practical knowledge can certify to its unrivalled excellence. During my six years' acquaintance with it, there has not come to my knowledge a single instance of failure in any case where it has been used. All to whom I have supplied it unite in commending it for its superior claims over all other paints now in use. The Averill Paint externally used, or, in other words, exposed to the action of the weather, neither rubs off nor changes color, as do other paints, and will retain its freshness and adhesive property for years. Pure lead and oil will in a short time become dry, and are easily rubbed off: the loss of oil leaves the lead in a dry, oxidized state. As a matter of economy the claims of the Averill Chemical Paint to popular appreciation and general use are beyond question. A house properly painted with it once will be better preserved, and present a neater appearance at the expiration of seven years, than it would if twice coated with lead and oil paints now in use. There can be no question, then, that to use it is both labor-saving and economical. So well assured and convinced am I of its established right to this distinction over all kinds, that had I fifty houses of my own to be painted, the "Averill" alone should be my choice and used.

Yours, very truly, S. J. ALDEN, Druggist.

UNIVERSITY OF CALIFORNIA, BERKELEY, August 16, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your note of the 13th inst., I willingly state that the work done by you in painting the exterior of the North Hall or College of Letters is in every way satisfactory, and the appearance of the building since it was painted excites the favorable comment of all who have seen it. As I have had occasion to use the Averill Paint before, my experience has been such that I prefer it to any and all others when properly applied. I am very truly yours, ROBT. E. C. STEARNS.

Sample Card of Colors Sent Free on Application. Be Sure and Write for One and Examine for Yourself before Buying Any Other.

CALIFORNIA CHEMICAL PAINT CO.,

117 PINE STREET, SAN FRANCISCO.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

NOTICE TO THRESHERS.

WANTED—TO EXCHANGE,

A Rice's Straw Burning Engine for a Wood Burner.

For further particulars address J. W. RILEY, care of Dewey & Co., 224 Sansome St., San Francisco.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

FARMERS, ATTENTION.

BUY THE BEST AND LATEST IMPROVED PLOWS.

PRICES REDUCED.

THE "IRON KING" GANG PLOW,

MADE BY SACRAMENTO PLOW M'F'G CO.

301 and 303 J STREET, - - SACRAMENTO.

This cut represents the "Iron King" Gang Plow, which we claim to be the Standard Plow of the Pacific Coast, for the following reasons: First—It runs lighter, working easier for man and team than any other plow. Second—It turns the furrow better and lifts easier out of the ground. Third—It is stronger and less complicated. The materials used are all iron and steel, except the pole, which is of the best ash. Fourth—The beams are made of wrought iron, and are very strong, and higher in the throat than any other plow, and the mold-boards thicker and better. Fifth—The shares are all made from our latest improved patterns, neatly fitted, and are stronger than any other in use.

They are built with cast steel shares, molds and land-sides, and have no castings on the under side of the plow to prevent the plow from going in when the point is worn short. They are differently shaped from any other plow, being the result of fifteen years' experience of the inventor. They have Ready's Patent Center Draft, which dispenses entirely with the unnecessary weight on the wheels, thereby lessening the draft of the plow. We guarantee the gang to run lighter for team than any other plow on the Pacific Coast. It was awarded the premium at the California State Fairs of 1874 and 1875, for the Best Stubble Plow. In these particulars, we claim a vast superiority over all other plows heretofore made. We also guarantee a perfect fit in duplicating each and every part of this plow. We ask of farmers simply a trial of this plow, which we warrant to work well in all kinds of soil. We believe it to be the neatest, simplest, strongest and most durable plow in the world.

"Little Giant" Iron Beam Gang Plows, Moline Bottoms—Price Reduced from $90 to $70 Cash. Single Plows from $11 to $20. All kinds of Tnie and Breaking Plows made to order.

No. 1 "Iron King" Gang Plow..	$85 00	Extra Shares—No. 1.....	$3 00
No. 2 " " " " ..	90 00	" " No. 2.....	3 50
Landsides for Single Plows..	$2 50		
" " Gang Plows....	1 50		

All kinds of Casting done on short notice.

San Francisco Agents, FLEISCHMAN, SICHEL & CO., No. 37 and 39 Battery Street.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

FARMERS write for your paper.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

*,*My "Guide to the Vegetable and Flower Garden' will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, MARCH 25, 1876. [Number 13.

L. L. Treadwell.

In the death of Leonard L. Treadwell, the senior partner of the firm of Treadwell & Co., San Francisco, and the whole Pacific slope, with its grand possibilities and connections, has lost one of its most zealous and devoted friends. Without domestic ties or any disposition to luxury or ease, he bent the whole of his massive energies to the one result of aggrandizing on a broad, firm and liberal basis, the resources of this vast western commonwealth, and he died literally as did Nicanor of old, "in his harness" working to this end. His early anticipation of the wants of the agricultural interest caused him to embark soon after his arrival in importing implements and machinery for the farmer, and although with but little practical knowledge of this class of goods, he contributed greatly to their improvement. He utilized the experience and knowledge of others, from the obscurest farmer to the most scientific engineer. The most trifling detail from a practical observing man was eagerly listened to, and suggestions of merit adopted, until gradually, through him more than any other, California is to-day far in advance of any country in the world in her appliances for large scale farming. Aggressive in the highest degree, his conceptions of the uses and purposes of trade were the highest, and his successes were something more than the mere monetary showing, great as it once was. In '67 the firm's credit was unlimited in Boston, New York and San Francisco. No California house has before or since reached a prouder place than Treadwell & Co. Honorable, bold, strong in mind, body and estate, its leader was regarded as a pillar of marble to the then infant commerce of this coast.

He was among the very first to claim and hold the confidence of Eastern capitalists and manufacturers for the far off and then unknown California merchant. Until late in '69 the firm's paper, under the wise management of the Eastern partner (Carter), was freely discounted as single name paper at one per cent., when the bank rules demanded indorsements and higher rates. In '69 came the era of swindling stock jobbing, of artificial values, of Wall street disrupting all honorable trade, and among the first to fall under its regime was the man who soared boldest, who had firmest faith and trust in the structure he had helped to build, and which, intrinsically strong, was overcome by violence and fraud. His failures were only the fallings short of great success—the spent runner dropping just short of the goal—and in all his relations, whether under failure or success, no man ever doubted his honor. The efforts, the means, the tendencies, were all far-reaching, peerless, noble, like the man. There was no trickery under disaster; no evasion; no private preserves from the rich harvest. He had no need of it; he was a man who could live on a crust and sleep on straw. He had not a single vicious taste or propensity. His soul and body were alike clean, and those who knew him best loved him best.

From his own standpoint his life was a failure, because he aimed at one result, and missing that, regarded all the rest as lost. His ambition was to be a great and successful merchant, with power to establish and practice and *enforce* among the guild of merchants those principles which he knew with proper accord would ensure safety success. He had no heart for the petty competitions and meannesses of trade. His imperial nature scorned them as unworthy a true merchant. He was perhaps an enthusiast upon the subject of the ennobling character of commerce. Or rather, let us say, he was the forerunner of the golden time when the true principles of finance, of tariff and exchange being better understood, the distractions which ignorance now causes will cease; when the great primal factors of demand and supply, regulated by known and approved laws, shall form the chain of *fact* which shall shape the faith of the world; when the wings of commerce shall sweep over the earth, bringing blessings in relieving the necessities of man, and we shall reason and act from the matter to the form instead of from the form to the matter.

His mind was wonderfully prolific. The trouble was to shape into practice the teeming fancies of his brain. Impatient, restless under the restraints which his mercantile failure imposed upon him, he could only see the errors in the governing influences of trade, by which the individual merchant is sacrificed, without power to correct them.

He was exquisitely sensitive and finely attuned to every harmony of art and nature. With a love for fact unequalled, and a capacity for the study and application of statistics very rare, he combined the most delicate and correct apprehension of the beautiful in poetry and philosophy. Few men were better Shakesperian scholars and very few drew from the grand thought sources such inspiration to a pure life. Ingenuous, tender and faithful, his singleness of purpose and disregard of physical comforts, with a quick, impetuous but decisive action, he conveyed to many the impression of an iron man. His physique was such that he probably did more work, had more vitality to spend and spent it, than any six ordinarily strong men.

His genial side was sunny, sweet and true, and was the most natural one to him. Impressed as he was with the world's suffering and need, he seldom relaxed the rigor of his work or gave time to the amenities of social life. But while his mind dealt chiefly with the world's stern and practical side, his nature was such as to make glad the heart of wife, children, home and friends, to a degree unequalled. As it was he lived alone, absorbed by his great, unselfish aims, and fretting out his soul that he could do no more.

Quietly he rests at last, under the sod of Lone mountain. A few who knew and loved him will perhaps visit his grave and have a closer memory of him, but many, very many, will have felt his influence indirectly in the marts of trade, as of a spotless man, who ennobled and left its atmosphere the purer for his life. After histories of the Argonauts of '49 will embalm him better than I can. His great heart and brain life may never be heralded. He will have no such poet as Sir Galahad's, perhaps, but none the less earnestly did he seek the *Holy Grail* to find at last that it was not earthly but higher.

W. R. C.

Agriculture at the Capital.

Agricultural Societies.

A bill introduced on Saturday by Assemblyman Lambourn, makes an appropriation of $16,142 to the State agricultural society, the amount of debt now resting on that society, and leaves blanks for all the district societies in the State. This bill is likely to cause a contest, because if all the district societies are included, the appropriation must of necessity be a large one, while the members from the districts of the other societies announce their determination to oppose any appropriation for the State unless their home societies receive consideration.

A Wide Water Scheme.

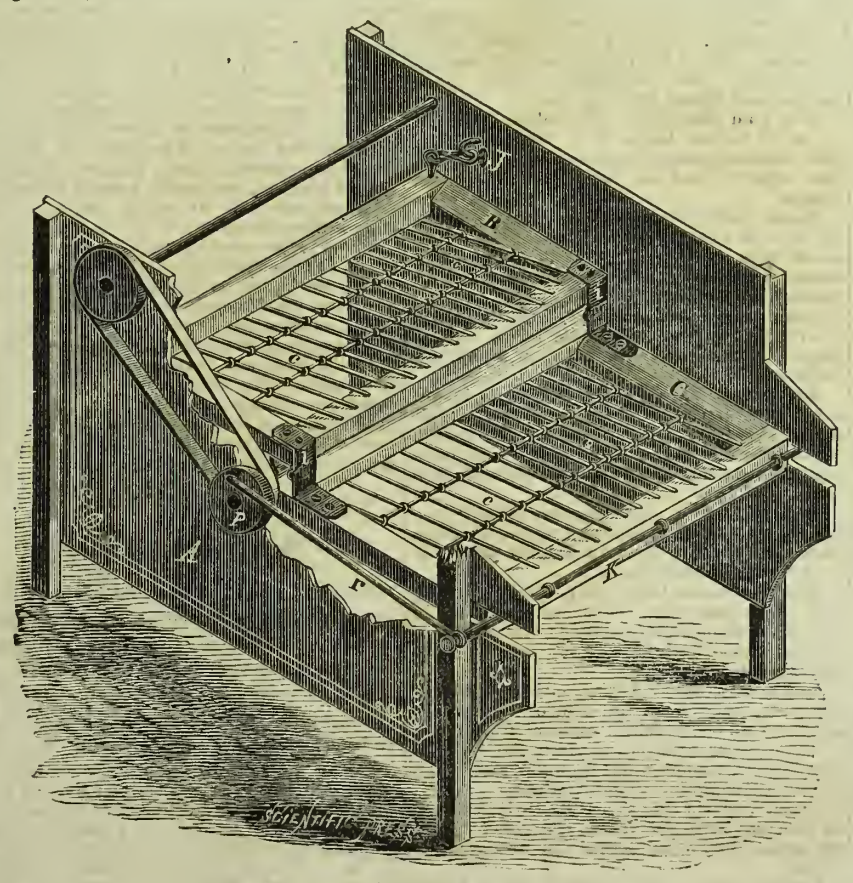
Mr. Patterson has introduced an act authorizing John Nelson Smith, his associates and assigns, to build and maintain dams on the Truckee and North fork of the American rivers and their tributaries for the purpose of making reservoirs, from which a sufficient amount of water can be obtained at all seasons of the year, to supply the State capitol grounds, cities of Sacramento, Vallejo, Benicia, Alameda, Oakland, San Jose and San Francisco for domestic, irrigation and mining purposes; the parties to issue bonds on the water rights, privileges, works and real estate named in the bill. It was referred to a Committee on Corporations

The Centennial.

The bill for an appropriation to represent the State at the Centennial has been reported back from the Senate Finance Committee with a substitute. There was also a minority report recommending that no appropriation be made. The whole matter has been sent now to the joint committee on Centennial affairs.

The Debris Question.

The mining debris question was brought up in the Assembly Tuesday. Mr. Carpenter moved the adoption of the resolution of the Committee on Mines in the place of the resolution of the Committee on Agriculture. He was opposed by Mr. Clunie in an able speech in defence of the agriculturists. The previous question was then demanded, and the resolutions of the Agricultural Committee were adopted by a vote of 32 to 31. The agriculturists thus won the day in the Assembly by one vote.



BROWN'S UNDULATING END-SHAKE SHOE.

Brown's Undulating End-Shake Shoe.

A Late and Important Improvement in Grain Separators.

We illustrate on this page a very valuable improvement for grain separators, invented by N. M. Brown, of Pescadero, Cal. It has been in use about two years, and has proven superior to the ordinary end-shake shoe, because the invention combines an undulating motion with the end-shake, thus making the operation of cleaning more positive. It always keeps itself clean, is simple and easily put in any thresher, and will not get out of order readily. It presents more cleaning surface than any other shoe in use; requires less time to set the machine, one stake (at the end of the tongue) being all that is necessary; runs smoother, lighter, and with less power than the side-shake; but most important of all, it will save and clean all the grain that any cylinder can thresh.

The invention relates to improvements in that class of riddles for separators in which two or more riddle sections are hinged together and mounted inside of the separator frame, so as to have a back and forth motion, while the middle portion rises and falls in an undulatory manner.

The riddle is constructed in two or more sections. Each section consists of a wooden frame which is of proper width to fit easily inside the separator frame. Across this frame are stretched parallel wires at a proper distance apart to form meshes or spaces between them of desired size. These sections are then connected together by means of hinges or other suitable loose jointed connections, so that the end of one screw will be below the other, being careful to have the ends of the sections at which the wires are secured to the bottom of the bottom side of the frame, standing in the same direction. These connected sections are then secured inside of the separator frame by suspending the extremity of one end section by means of link hangers from the side of the frame, while the extremity of the opposite section is supported by a rod, the ends of which pass through a slot in the sides of the frame. A shaft passes across the frame directly below the hinged end of the uppermost section, so as to support it, leaving the end of the lower section to hang by the connecting hinges. The shaft has one or more arms, which serve as lifters or cams for raising and lowering the hinged ends of the sections or middle of the riddle. A crank wheel is secured to each end of the shaft, and a rod connects these cranks with the projecting ends of the rods, which supports the rear end of the riddle. Thus it will be seen that by turning the shaft, the riddle will be moved back and forth longitudinally, and at the same time its hinged middle portion will be moved up and down, so as to give the riddle an undulatory motion. By hinging the end of one section below the end of the adjoining section, is provided a drop for the straw and grain, which loosens up the straw and allows the grain to pass through the riddle.

The farmers in California have had considerable experience with both end-shake and side-shake grain separators; but we believe that when properly regulated and adjusted the end-shake shoe has proven itself superior to all others. The ordinary end-shake shoe, first introduced, was uncertain and unsatisfactory in its action, and could not be relied upon. The Brown shoe is entirely independent of that nice adjustment so requisite to the ordinary end-shake. It combines two motions, one an undulating and the other an end-shake, and these motions render it so complete in its action that it never clogs and does its work perfectly. A good separator is a necessity where the farmer has any care about the quality of the grain he puts upon the market. We call the attention of farmers and manufacturers to this shoe, believing that it possesses substantial merit. Mr. H. C. Brown, the proprietor of the patent, can be consulted or addressed at the office of Geo. Morrow & Co., 39 Clay street, San Francisco.

Pure Blooded French Merinos.—Attention is called to the new advertisement of Mrs. Robert Blacow, in to-day's issue.

CORRESPONDENCE.

More About the Eucalyptus and Other Australian Trees.

EDITORS PRESS:—It was my good fortnne some days ago to receive from our fellow townsman, Mr. Hugh Mackey, some interesting facts and information in regard to the Australian eucalyptus and other valuable trees and woods as they have been tested by long use and experience in their native land.

Mr. Mackey is the brother of Hon. Angus Mackey, commissioner from Queensland to the Centennial Exhibition, and the facts and memoranda referred to were received from him during his visit to his brother here, before leaving for the Eastern States.

An Australian Table.

I had also the pleasure of examining, at the house of Mr. Mackey, a present from his brother of a ciroular table, the top of which was very tastefully and skillfully veneered and inlaid with many kinds of eucalyptus and other valuable woods of the colony. This beautiful piece of furniture from Queensland, composed of so many pretty specimens of eucalyptus and other valuable woods, gave me a clearer idea of the great value of these Australian productions than any mere description of them could possibly have done. Of the eucalyptus specimens, of which there were 16 pieces, arranged in the shape of a star in the center of the round table top, all were beautiful, exhibiting a great variety of rich and attractive colors, the grain of the woods being of such qualities as to receive the finest polish. No rosewood or mahogany could surpass these specimens in finish or richness of color.

Value of Eucalyptus Wood.

Knowing that there is a spirit of inquiry all over the State as to the best kind of trees to plant—adapted to our varied climate and soils, and the different purposes for which they may be wanted—I thought perhaps some facts and statements coming from the source referred to might be of some benefit to resders of the PRESS, who might contemplate going forward in this interesting line of improvements. The great success which has crowned the introduction of the eucalyptus into our State, inspires the belief that there may be many other valuable kinds of trees that might be introduced as well. The adaptation to our climate and soil can only be fully tested by experience. Mr. Mackey was surprised at the splendid growth the eucalyptus was making here—far surpassing in rapidity that of its native land, which may, however, be accounted for by the csre with which it has been cultivated.

In calling the attention of nurserymen and tree planters to this subject, the writer would acknowledge that he is not informed what has already been done in this direction. Perhaps most or all of the trees referred to in this article may have already been introdnced and tested in some localities. Still, I hope a description of them as they are found in their native forests may prove interesting reading to many of your patrons.

What This Generation Can Do.

In yonr editorial article of January 29th, on "Encalyptns Woods," you say:

"It may not be for this generation to profit largely from the material of the trees' growth except for firing, because it will be years before keels of ships can be laid with California grown eucalyptus as to-day in Australia."

This is doubtless trne; and yet I think there are nses to which the eucalyptus can be put which may largely benefit the young men of this generation. Suppose a young man of 21 years starts out in the world with, say, only 10 acres of good land planted to encalyptus trees. At 10 feet apart each way he could set 4,400 on this land. Now, suppose his trees should all do well and grow as rapidly as the one on Delmas avenue, referred to in my letter about the Alameda avenue, in the RURAL PRESS of Jannary 1st. This tree at the age of 17 years (as I was informed by the man on the premises), measures six feet in circumference four feet from the ground, and was estimated to be 115 feet in hight. This tree would cut, say two cords of wood, worth $5 per cord in the tree, making $10 for the tree. Or if 48 feet of it from the stump was sawn into inch boards, it would make, according to a lumberman's rule before me, 691 feet of sqnare edged boards, worth, at 1½ cents per foot, $10.36 for lumber. And the balance of the tree would make half a cord of wood. worth $2.50 in the tree, thus making $12.86 for the tree as it stands. This amount per tree would give the young man 17 years hence, or at the age of 38 years, the nice little sum of $56,584, as the product of 10 acres of land for that length of time.

Bnt suppose we drop this calculation based npon *possibilities* and adopt one based npon more reasonable *probabilities*, and average the trees at $5 a piece, the price wood is now worth per cord in the tree, and we have the comfortable sum of $22,000, as the product of 10 acres of land in 17 years. How this would compare with farming or fruit growing, I am not prepared to say. But when we take into account the small outlay required to start the plantation of trees, and the little work required in their cultivation for the first two or three years only, we cannot bnt conclude that in comparison with othor productions of the soil, this would compare most favorably.

It should be borne in mind that whatever might be the pecuniary results of growing trees for fuel or lumber, that if planted on land suitable for the purpose, but little or no expense is necessary after they have been well started and established. All you have to do is just to let them alone, to stand and grow year after year, while you may, if you choose, be employed in some other profitable business. There are other considerations favoring this interesting question of tree planting, aside from the mere question of dollars and cents to be realized as speedily as this fast age demands, which should have weight with the patriot, the philanthropist, and the lover of the beautiful in nature. But these introdnctory remarks have already been extended beyond my first intention.

Some of the Timbers of Queensland.

Iron bark (*Eucalyptus siderophloia*), grows all over the open country; diameter, 20 to 30 inches; hight, up to 80 feet; with a rough furrowed bark; the hard timber makes good sleepers and bridges. A beam of iron bark, 20 feet long, two inches wide and seven inches deep, with a weight of 3,301 pounds, yielded four inches, but did not crack or break. On removal of the weight, the beam was found to have a "set" of one inch, bnt was otherwise uninjured.

Stringy bark (*Eucalyptus fibrosa*), diameter, 18 to 24 inches; hight, up to 60 feet; timber used for flooring and fencing, but it is inclined to shrink and warp.

Red gum (*Eucalyptus tereticornis*), a noble tree, growing up to 100 feet in hight; diameter, up to 36 inches; timber straight grained, splits easily, and is used for fencing and building. Is very strong, and amongst the most durable of timbers. Used for furniture, plow beams, harrow frames, spokes, shafts, poles, etc.

Gray gum (*Eucalyptus saligna*), grows on poor and rich soil; the best found upon ridges; grows up to 200 feet; diameter of trunk up to 40 inches, with immense limbs; timber strong and durable; takes a fine polish; is used for ship building, fencing, and building.

Spotted gum (*Eucalyptus maculata*), a durable timber; hight, up to 80 feet; diameter, up to 30 inches; takes a fine polish; nsed for fencing, wheelwright and shipwright work, plow handles and beams, building, etc.

Blue gum (*Eucalyptus botryoides*), diameter, up to 48 inches; hight, 70 to 150 feet; wood used where hardness, toughness and durability are required, and for naves and felloes of wheels.

Blood wood (*Eucalyptus carymbosa*), grows up to 150 feet; diameter, up to 36 inches; wood very durable; has been found quite sound after submersion for years; used for fencing, anchor stocks, building, etc.

Black butt (*Eucalyptus pilularis*), grows in the ridgy country; diameter, up to 40 inches; hight, up to 80 feet. A valuable timber for building.

Turpentine tree (*Eucalyptus Stuartina*).—A magnificent tree, with large branches. Hight up to 150 feet; diameter up to 50 inches. Timber very durable and strong; does not burn easily. Does not split well, bnt excellent when sawn.

Red mahogany (*Eucalyptus resinfera*).—Grows up to 80 feet; diameter up to 30 inches. Takes fine polish. Used for cabinet work. Is very strong and durable.

Beech (*Gmelina Leichhartii*).—Grows in rich soil. Diameter up to 40 inches; hight up to 100 feet. Wood easily wrought; does not contract or expand with heat or wet; very beautiful and durable.

Red cedar (*Cedrela Toona*).—Grows on rich soil only, with dense growth of vegetation. Diameter up to 76 inches; hight up to 150 feet.

White cedar (*Pentaceras Australis*).—Diameter 12 to 20 inches; hight up to 60 feet. The wood is close-grained, tough and firm.

Penoil cedar (*Dysoxylon Muelleri*).—Grows in land similar to red cedar. Diameter up to 40 inches; found in scrubs on the various rivers.

Cypress pine (*Callitris Columnaris*).—Diameter 20 to 30 inches; hight up to 60 feet. Found on sandy soil. Wood valuable for durability, grain, fragrance, susceptibility of high polish and resistance to attack from ants.

Moreton Bay pine (*Araucaria Cunninghamii*).—Diameter 36 to 66 inches; hight up to 200 feet. Spreads over a large area of country. Its polish is equal to that of satin wood or maple.

Bunya Bunya (*Araucaria Bidwilli*) pine.—Diameter up to 50 inches; hight up to 220 feet. This noble pine grows in mountain scrubs; it is protected by the government of Queensland because the seeds of the cones are a favorite food for the natives. The wood is strong and good, easily worked, and shows beautiful veins when polished.

Light yellow-wood (*Flindersia Oxteyana*).—Diameter up to 40 inches; hight up to 100 feet. Is a good timber and has dyeing properties.

Dark yellow-wood (*Rhus rhodanthemum*).—Diameter up to 24 inches; hight up to 70 feet. A soft, fine-grained, and beautifully marked wood.

Silky oak (*Grevillea robusta*).—Grows in damp, good soil; diameter 30 to 40 inches; hight up to 100 feet. The wood is used by coopers and cabinet makers.

Box (*Tristania confera*).—Diameter up to 50 inches; hight up to 100 feet. Timber strong and durable in dry places.

Moreton Bay chestnut (*Castanospermum Australe*).—Grows in scrubs; diameter 24 to 36 inches; hight up to 90 feet. The dark timber of this magnificent tree, with its green glossy waves, is like walnut.

Broad-leaved cherry tree (*Exocarpus latifolius*).—Grows in rich soil; diameter 6 to 9 inches; hight up to 25 feet. Cabinet makers use this very hard and fragrant timber.

Coach wood (*Ceratopetalum apetalum*).—Diameter 24 to 36 inches; hight up to 90 feet. This soft, light, tough, close-grained and fragrant wood is employed by joiners, cabinet makers and coach builders.

G. W. M.

Santa Clara, Cal., Mar. 11th, 1876.

Early Plowing and Late Sowing on Pajaro.

EDITORS PRESS:—In regard to early and deep plowing, early and late sowing, it is necessary to know the conditions and character of soil. The locality also should be given if the experience is to be of use to the reader. Writers too often omit these valnable points.

Down here in Pajaro we have two classes of lands. One class is more snitable for wheat. It is a black loam, between adobe and sediment. The other land is a light sediment devoted to potatoes and barley. My experionce has tanght me that early and deep plowing are good on either of these lands; the earlier the better. I always do my deep plowing the first time (as I plow twice for barley or summer crop), as in plowing ten inches I get as much subsoil as by plowing a foot the second. The advantsges I gain are: The ground is harder for the team to walk upon, and I turn the stubble and trash down where it ought to be, at the bottom, where it will decay and keep the soil warm.

Last season, on the 6th of December, I sowed 40 acres of barley for a neighbor on light sediment land, 105 pounds of seed per acre, plowed but once. He realized 25 sacks per acre. In the fore part of Jannary I gave 30 acres of black soil the same treatment, with same results. On the 10th of March I sowed 14 acres of black land plowed twice, and had to wait for the gangs to get out of onr way. I nsed 90 pounds of seed and realized 50 centals per acre. On the 11th of March I sowed 20 acres that had been *plowed only seven days*, nsed 125 pounds of seed and realized 25 sacks per acre. This latter piece was light sediment also, plowed twice. The 20th of March I sowed for myself 15 acres, keeping up with the second plowing, put in 90 ponnds of seed per acre and harvested 50 centals per acre from light sediment soil.

These pieces were all barley. I never put in wheat or oats later than the 1st of January; the earlier the better, as the quantity and quality are better than later sown and escape the rust. It will be seen that conditions are of vast importance, as in the case of keeping up with the plow the crop was double of that only lying seven days. The seed not sprouting a poor stand was obtained. I have seen over a hundred bnshels of barley realized per acre that were sown on the 1st of May, and was harvested in the 10th week from sowing.

HAY MAKER.

Watsonville, March 12th, 1876.

New Uses for Ramie.

EDITORS PRESS:—I think that the page of the RURAL allotted to the correspondents ought to be filled, so here goes a line from Los Nietos: Some time since you asked for adversities as well as prosperity in agricultnral undertakings. This gives me an opening on my last year's experience. 1st. I was taken with that very common disease, contagion, or malady, or whatever term yon may call it; that is, I undertook to farm too much land; then came on the sequel, the April frost, a sandstorm and gophers, then shortage for water on irrigation; so by December 31st the debtor column of "farming enterprise" was longer and out-fignred the creditor column. Mr. Editor, I think you had better give ns another editorial on the importance of diversified crops. We, of Los Angeles county, are after barley this year, just about to the extreme that we were after corn last. A great amount has been sown, and even the driest uplands promise a heavy yield.

On these low or corn lands, as it is here termed, the malva is ponderous. Of wet seasons like this, in some localities the malva gets snch a start that it is at out impossible to do anything with it. I have been theorizing thus: The malva is a native, indigenous and ponderous, and too, is a textile plant of no very low grade. Why is not this soil the very thing for textiles, in general. I propose to make a fight between ramie and malva. I have plenty of rattoons, and I also propose to plant some against a nettle patch. I believe that I can take anything except a willow grove with ramie. I will report in the future my experiments with ramie.

I have found the ramio bark a very superior substitute for twine in budding and grafting, being more easily handled, as well as more rapid. The tender rattoon is a complete substitute for slippery elm in medical purposes, and too, as false curls for our vain young ladies, I have proven ramie superior to the jute article now on the market. The native varnish in the ramie lint maintains the curl and the luster.

GEO. KAY MILLER.

Los Nietos, Los Angeles Co., Mar. 6th, 1876.

Summer Fallow, Dry Sowing, etc.

EDITORS PRESS:—In your issue of March 4th, your Antioch correspondent takes me to task for speaking in favor of dry sowing, as connected with summer fallowing. I am gratified to see, however, that in the main he fully agrees with me in the essential points I wished to make in my communication; the chief one being the advantages to be derived from the practice of summer fallowing, and among these the possibility of dry sowing. That this possibility does not exist in the "bay climate" region, on account of the growth of weeds rendered possible by the summer fogs, I am fully aware, having been a witness thereof; but having in my mind the country of the upper San Joaquin, and other regions similarly circumstanced, I omitted to guard against a possible misapprehension of my meaning. I hardly regret the slip, as it has drawn out such an intelligent discussion of the subject; indeed there are, in the theory and practice of agricultnre, so few rules or maxims that do not require restrictions in their applications to different localities, that a large dose of judgment and common sense is probably more generally needed and used by farmers than by men in any other occupation. To restate my propositions distinctly:

1. The grain crops of California are liable to frequent failures from want of sufficient moisture at the time the grain is formed. The uncertainty of seasons as regards an adequate supply of moisture to mature the crop amounts, in some regions, to a risk too heavy for a sonnd business investment; and the anxiety with which the rainfall is watched throughout the State shows a greater dependence upon the accident of seasons than is nsually found in agricultural communities.

2. Any measnre or mode of culture that tends to diminish this dependence, is therefore of very general importance and deserves a thorough trial.

3. Local differences of climato and soil must determine material differences in the availability and manner of application of any means devised for the purpose.

The above premises being doubtless admitted as almost truisms, on all hands, the

Possible Remedies

For this state of things may be summed up as follows:

1. Irrigation. This is the radical remedy; bnt as yet it is available to a limited extent only; nor is it likely, for many years to come, to be so generally accessible as to diminish materially the importance of finding the means of doing without it, as far as possible. It is of note too, that both in the first cost, and in the current expenditures it necessitates, irrigation is far from being inexpensive.

2. Deep culture and snb-soiling; whereby not only the moisture is brought within reach of the roots from greater depths, bnt the roots themselves descend farther, in search of both moisture and nourishment. There can be no doubt that here, as elsewhere, when the difference between success and failure of a crop depends (as it so frequently does) npon an adequate snpply of moistnre for two or three weeks more, this simple remedy will in most cases make up that difference, as compared with land whose surface only has been scratched. Such certainly has been the experience in the Gulf States, where dronth is one of the most common causes of crop failures. The burden of proof that it is otherwise in California rests npon those making that assertion.

3. Favoring to the greatest possible extent, the early maturity of the crop.

There are three chief points deserving consideration in this connection, to wit:

Early sowing.

Thorough preparation of the ground.

Use of seed requiring but a short season for full development.

As regards the first point, it is obvious that the

Summer Fallow

Is one of the most essential prerequisites to its attainment. In regions where the growth of weeds after fallow plowing will not interfere with "dry sowing," time may be gained in that way; where plowing previous to sowing is essential on account of the growth of weeds, that plowing may still be done much earlier in the summer fallow ground than in that which is baked so hard that the three or four first showers must be allowed to pass before the plow can be put in.

"But that," I hear some of your readers exclaim, "involves the cost of an extra plowing!" Precisely; but if our friends, as I pre-suppose, are so situated that they must either irrigate, or, being unprepared to do so, must risk the loss of one crop out of two or three, it may be well worth their while to consider whether they would not be willing to pay the cost of an extra plowing as an accident insurance against crop failures. At the very least, the experiment is well worth trying, whether by individuals, or in the common interest, by Grangers located in the districts most liable to suffer in this direction.

As to the second point, it is practically covered to a great extent by the consideration

just mentioned. The extra plowing will also insure better tilth, and a consequent more rapid and vigorous development of the seedlings. But greater depth is also very essential, and

Deeper Tillage

Is, of conrse, materially facilitated by greater frequenoy. In other worde, its extra cost is not to be estimated by the increase of draft required when it is done for the first time, or perhaps onco in three or four years; in which cases a hard crust formed beneath the plowsole, has to be broken through.

Alluding to this point, your Antioch correspondent remarks that with him, deep tillage exerts an unfavorable influence npon the quality and quantity of the grain. This is not an nncommon case on "fresh" soils, and is doubtless due to the natnre of the sub-soil, whose turning up is more to the injury of the crop at the present time than the advantage of deep tillage can compensate. So, probably, with the adobe soils of San Ramon. There are few methods of soil improvement that can be so easily "run into the ground" as deep plowing and sub-soiling injndiciously applied or practiced, and so long as our neighbors across the hills can raise their 40 to 50 bushels of wheat per acre, with little or no risk of failure, I do not see that they need any outside counsel, nnless it be a reminder that the goose will not go on laying golden eggs forever without being fed.

The question how deep the turning plow may properly be run, is to be determined only by each locality for itself. That of simply loosening or stirring the sub-soil, is capable of a far more general solution, as there are few cases in which it may not be advantageously done. As regards the effects with referenoe to moisture, it is simply somewhat less effectual than using the turning plow to the same depth. Where drouth is to be feared it is among the most available means of providing against injury to crops.

Early Seeds.

Finally, as regards the use of seed of varieties distinguished for rapid development and early maturity, the experience of the Gulf States will doubtless be found to apply to California as well. It is there fonnd necessary to renew frequently from northern raised seed, all the very early varieties of garden and field crops, for the reason that these varieties, in the course of a few years seem to adapt themselves to the long growing season of the South, and lose gradnally all claim to being called "extra early." So with "Adams' Early" and "Yellow Canada" corn, early radishes, peas, etc. It seems to be an established fact that all Eastern and foreign wheats, after a few years' culture in California, assume pretty much one and the same characteristio California type, as to plumpness, color, etc., this can certainly not be deemed a disadvantage in any other point of view, than perhaps that of correspondingly slower development, in accordance with the long growing season (from November to June,) of California, and, therefore, (again with reference to those districts liable to crop failures from early dronth,) the question arises whether a frequent renewal of seed from colder climates may not be made to contribute essentially to the greater safety of the grain crop. A great deal of experience bearing on this subject has been had in the State, and so far as I am aware it all points in the same direction, amply justifying considerable attention to this point.

A Substitute for Irrigation.

I fear, Messrs. Editors, that I am trespassing rather heavily npon yonr columns as well as upon the patience of your readers. The entire subject, however, is of such direct importance to one of the leading industrial interests in the State, that I cannot but think it deserving of the most serious attention. I am convinced from the experience of other countries as well as that already had in California, that thousands upon thousands of acres of land now thought to reqnire irrigation as a condition of profitable cultivation, in reality needs only the application of intelligent culture, with a view to the considerations above referred to, in order to ensure good crops under ordinary circumstances; and that a large portion of the crop failores now annually occnrring might be avoided by similar means. The net work of agricnltnral associations now covering the State could hardly confer a greater and more lasting benefit npon themselves and their posterity than by determining experimentally, once for all, snoh questions as these, which neither individuals, nor the agricultural department of the University can possibly take in hand with equal advantages for practically available results. It would not even be necessary for this pnrpose to establish distinct experimental stations, as some of the Tennessee Granges are preparing to do. Intelligent indi-viduals can nsually be found, willing to make such experiments for the general benefit, if gnaranteed against loss by all those concerned. The expense thns inourred by each individnal will be trifling, unless the trials are made on an nnnecessarily large soale.

Local questions must of neoessity be determined by local experiments; but all assistance that may be required in the way of preliminary examinations of soils, or other scientific points, will at all times be cheerfully given, to the extent that means permit, by the agricnltural department of the University.

EUGENE W. HILGARD.

University of California, March 6th, '76.

Farm Figures.

EDITORS PRESS:—I have seen in the RURAL PRESS a request to know the cost of raising crops or carrying on a farm in California. From the fact that farmers keep bnt few accounts, and so mnch depends upon the crop itself that there is considerable difficulty in getting an accurate estimate of expenses, I know of but few crops where the figures can be got at with considerable certainty, and I thought I would send them to you. The first one is a farm of 2,500 acres; soil, mixed red clay and sand, with some spots of small gravel. For the last three years they have employed three gang plows with eight animals each, with three drivers, with one more for cook and worker about the buildings. They commence about the first of November putting in the crop, and before the first day of March everything is done: plowing, sowing, blacksmithing, poisoning squirrels and everything necessary for the crop. They then go to shearing sheep and return in May in order to be ready to commence harvesting on the 1st of June. They hire two more men for about two months, and in August they are on their way sheep shearing again, leaving one man to do anything left undone, and prepare for the next crop.

They have three plows, one wagon, one header, one set blacksmith tools, etc. The following is the

Inventory of Property:

24 Horses	$1,200 00
12 Sets farm harness	300 00
1 Wagon	200.00
2 Header beds	80.00
1 Header	500.00
3 Gang Plows	180.00

Cost of Putting in Crop.

4 Men four months each	480.00
100 Pounds bluestone	12.50
Coal for blacksmith (actual cost)	15.00
Plowshares	40.00
Ex. of volunteering, one man four months	120.00

Expense of Harvesting.

4 Men three months, each	60.00
2 Men two months, $2 per day	208.00
1 Wagon two months	30.00
Repair of header	50.00
Repair of wagons, etc	55.00

Their horses were taken to the mountains for pasture, at the rate of $1.25 each, for three spring months, $90. Their feed for plowing was straw and barley, as the straw did not cost anything or would not sell tor anything. The hauling in the barn was included in the above. The materials used for repairing harness will not amonnt to $10; the labor, included above. There is a charge for materials to make a brnsh to volunteer with, which will amount to not more than $20. Their feed for harvesting was taken from the crop and not charged.

Their threshing was done for seven cents per bushel, with horse feed and board for the men. The threshers take the grain in the stack, thresh, sack and pile it. The part of the grain which was sold was hanled to the railroad for $2.25 cents per ton. Their sacks in 1874 cost 14 cents each; in 1875 the price was 11 cents each. This is nearly a complete account of expenses of running a farm here. I have made no account of household expenses, as that is not easily to be got at. Their expense will not vary but little for either of the years, except threshing, sacking and hauling. Their crop, 1874, was a few bnshels more than 20,000, principally wheat. The stubble was worth and would have sold at $300, and they received something from the increase of hogs. In 1875, 10,000 bushels of grain were harvested, and the stubble was worth $480, and the hogs $500. The above account is as near as can be arrived at, without an account being kept. This case was taken because it is the most simple of any that I know of. FARMER.

Turlock, Mar. 10th, 1876.

These items are interesting, but they do not furnish an accurate idea of the cost of the crop, nor is there any mention made of the selling price, so that the result of the industry can be shown. The points are most valuable as showing the separate items of expense. We think it would be well if farmers could figure much more closely on their operations. They could then know to a bit how they are sucoeeding.

COW HAIR AS A SUBSTITUTE FOR WOOL.—There is now being manufactured in England a class of goods known variously as veloms, Ulster coatings, chinchillas, etc., alleged to be made of hair and vegetable fiber, without the admixture of wool in any shape. These goods are finding their way into the United States, and the custom house authorities are not a little puzzled as to where to place them, when scheduling them for duty. Testimony of experts was called in; but it was only another case in which "doctors disagreed." The solution of the problem has been made the duty of the National Academy of Sciences.

"IT took that German savant just 14 years to make an egg and hatch the same, but it will take him just twice that long to convince us of the fact." Allowing that it is a fact, we fail to see the economy of the new method. Had the savant invested fifty cents in a motherly old hen, he could have had more eggs, a more numerous hen progeny, and something over to pay for the wear and tear of the hen.

THE DAIRY.

Our Dairy Products at the Centennial.

EDITORS PRESS:—I see your editor, Mr. Wickson, is appointed to give instructions to those who wish to send dairy prodncts to the Centennial. I have a dairy of 600 cows, and I shonld like to be a member of the Dairy Association of California. If there should be any donation required to become a member I am willing to do my share.

What time do tbey intend to send butter from here to Philadelphia? I presume the butter from California will be sent all at one time. Who will receive it in San Francisco, or shall each one send his own?

HIRAM COREY.

Salinas, Monterey Co., Cal., March 31st.

We are pleased to receive Mr. Corey's inquiries both in regard to the association and the Centennial. In regard to the association there is no donation or anything of that kind required. Every dairyman in the State should be free to membership. After the organization is formed there will be a small fee necessary to defray the expenses of the meetings, but this will be a matter for each member to vote npon atter the society is formed. The society will do anything the members decide upon. The meeting will decide upon its own plans and expenditures. All that is asked now is that the dairymen approve the plan, give their names to a call for a meeting, and then attend the meeting and have a voice in shaping its course.

Concerning sending sample products to the Centennial, it is necessary first to ascertain who of our dairymen are disposed to make an exhibition of their manufactures. For this purpose we should like to bear from them as soon as possible. After the probable amonnt of the product to be sent is ascertained, it would be our plan to make arrangements by which it may be all properly transported together in a suitable car direct to Philadelpbia. After the preliminaries are arranged, we shall take measures by which the samples can all be sent to one point for shipment. It is necessary first to know all who will submit their productions.

The Dairy Association.

EDITORS PRESS:—I noticed in your paper ol March 4th an article urging the formation of a State association of California dairymen. I believe it a good project, for if properly organized and conducted it will raise the standard of onr dairy products, and bring the industry more prominently before the people, and thus increase the inquiry for them.

The large amounts of butter and cheese which are each year brought from the East show plainly that there is a field for growth in the dairy business. Our dairymen should do everything they can to make their products possess a distinctive excellence, such as will give them possession of onr market to the exclnsion of the importations.

Individual dairies have already attained superior excellence, but in the general product of the State there is much progress to be made, and I regard association and discussion among dairymen one of the best known means of extending dairy knowledge, improving dairy practice and gaining the rewards which improved products always secure in the markets. In our dairies at Point Reyes we have clearly seen the advantage of making continual effort for more skillful and more intelligent work. The dairy business, from the pasture to the market, still invites more light and a better understanding of methods and agencies. In Enrope every point of dairy practice is being scrutinized and the latest scientific discoveries are being reduced to practice for the dairymen's benefit. In the Eastern States there are many associations of practical dairymen actively engaged in advancing and extending the interests of dairy farmers. It is manifest that our dairymen singly and alone cannot keep pace with the progress of the industry. But by uniting and pnshing ahead together in their particular branch of agriculture they can make themselves masters of the situation. As I remarked at first, I heartily approve the proposition and I hope that a California State dairymen's association will be put in operation as soon as practicable. CHAS. WEBB HOWARD.

Oakland, March 31st, 1876.

We are much strengthened in our efforts for securing to onr dairymen the benefits of association by this hearty approval of the idea from Mr. Howard. He has shown by the progress and success which he has promoted among the Point Reyes dairymen that he is a practical sympathizer with dairy advancement.

Mr. Howard makes some excellent points in his letter. There is a great advantage in bringing the dairy industry prominently before the people, and by awakening popular interest in the skill and intelligence necessary in successful dairy husbandry, great influence has been exerted toward increasing the home demand for first-class dairy products.

Another good point is in regard to making our dairymen masters of the trade on this coast. It is not good that a State so admirably adapted to dairying as this is, shonld allow opportunity for the large importation of Eastern butter and cheese which is now made every year. Onr dairymen by studying together the question of production and marketing can do much toward devising means by which the slack production at one time and the excessive production at another can be overcome. It is true that this matter depends greatly npon the natural conditions of the pastnres and the herds, bnt the profit of supplying the trade at the time of highest prices is so great that extra expense in feed, etc., can be profitably undertaken in inducing a flow of milk at a time when the market now rises rapidly under the pinch of a scarcity. This can be done; dairymen in other regions have done it, and there is a profit in it, but it needs the combined counsels of practical men to fix upon the best way to do it nnder the peculiar conditions which prevail in this State. In wise and timely production lies the success of any industry.

Mr. Howard truly says that we can exclude importation by giving the California products distinctive excellence. We *can* make the best. We are satisfied of this by the snperior quality which we have observed in the milk yield of this State. The better pasturage and pnrer air too, are powerful aids, and the cool nights, which prevail in many of our dairy regions, are ble-sings to tbe prodncer. We need better general skill in manufacture to reap the full reward of our advantages. Let us compare methods and experiences and choose the best.

Mr. Howard's remarks ooncerning the way the dairy is advancing elsewhere are forcible and true.

THE VINEYARD.

The Napa Viniculturists.

The Vinicultnral Society held its regular monthly meeting in St. Helena Mar. 11th, and was attended by quite a delegation from Yonntville and Oakville, as well as the St. Helena members. The President, Mr. Krug, being absent, Mr. Crabb, one of the Vice Presidents, presided, and the Secretary, Mr. Pellet, filled his position. Among the gentlemen present were the following: J. C. Weinberger, O. Shulce, R. A. Haskins, John York, L. Lazarus, Dr. G. B. Crane, Hon. Seneca Ewer, J. Lewelling, P. Sheehan, H. M. Allen, H. A. Pellet and R. L. Heath, of St. Helena; J. W. Sayward, of Lodi; J. H. McCord and C. Wheeler, of Pine Station; John C. Davis and H. W. Crabb, of Oakville; and Wm. H. Gibbs, (of Cooper, Gibbs & Co., Grangers' store,) T. L. Grigsby and T. B. Hopper, of Yountville.

On motion, the Committee on Phylloxera, consisting of Messrs. Crabb, Lewelling and Crane, was made a standing one.

Product of the Lower Valley.

The Secretary read a communication from T. J. Dewoody, Esq., of Napa, to Mr. T. L. Grigsby, giving the amount of grapes in tons raised last year in the vineyards of the lower valley, from Soda creek down, as follows:

T. B. McClure, 100; J. M. Mansfield, 40; A. S. Reney, 40; Buisran, 60; Roeder, 200; Wm. Fleming, 100; D. McDonald, 63; J. A. Calfee, 15; W. R Hill, 50; Kennedy, 50; Ward Bros., 80; Wm. Imrie, 50; S. C. Goodrich, 30; J. F. Miller, 100; M. M. Estee, 40; T. J. Dewoody, 40; G. Bement, 50; Odd Fellows' tract, 50; Wm. A. Fisher, J. M. Thompson, and three or four others east of Napa, 200; Total, 1,358 tons.

This Mr. Dewoody sent, with his best wishes for the objects of the society and a regret that he could not attend.

The Vintage of Conn Valley.

A report was also received from Mr. Connelly Conn, one of the Vice Presidents of the society, as to the number of vines in Conn valley, as follows:

Glendale Ranch, 10,000; L. Corthay, 18,000; A. Corthay, 12,000; E. Mnsgrave, 22,000; F. Metzner & Co., 55,000; C. Conn, 18,000; Mrs. Barry, 2,000; J. Ward, 2,000; F. Sage, 6,000; C. Pritchard, 2,000; R. G. Ewbank, 5,000; Total, 152,000.

The prodnct of these Mr. Conn estimates at 300 tons last year; but in this connection it must be borne in mind that a large proportion of these vines are so young as not yet to be in bearing.

A Commiltee on Statistics.

Mr. Pellet here moved the appointment of a committee of three, on Statistics, to get the number of acres of vines, number of vines, number of tons of grapes produced in 1875, and number of gallons of wine and brandy manufactured in the same year, in Napa county: seconded and carried. After some consideration, the Chair named Messrs. Chas. Krug, of St. Helena, T. L. Grigsby, of Yountville, and T. J. Dewoody, of Napa, as such committee.

Dr. Crane here read a communication from the Bnreau of the Wine and Spirit Traders' Society of the United States, office 125 Pearl street, New York, calling attention to their efforts to secure certain changes in the revenue law, and requesting the oo-operation of California wine growers and distillers of grape brandy, to to secure the desired end. Following this, the doctor offered some resolutions approving the action of the New York spirit traders, which were discussed and laid on the tablo for the present, there being much opposition to the project. The next meeting was announced for Mar. 25th.—*St. Helena Star.*

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

New Constitution and By-Laws.

We have the amended form of the Constitution and By-Laws and Rules of Order of the State Grange; the Declaration of Purposes, Constitution and By-Laws of the National Grange, and blank form of Subordinate Grange Constitution and By-Laws, now printed in one pamphlet. Granges supplied at five cents per copy, post paid. The special code of Subordinate Granges printed and bound in the above form for $9 per 100 or upwards, according to amount of changes required. For all over 100 copies, 4 cents per copy.

Yuba City Grange.

Editors Press:—I take advantage of the invitation extended to members of our Order to correspond for your columns, by sending you a few items on the present condition and future prospects of this Grange. Of late you have heard little or nothing from us, which may have led you to conclude that we are dead or in a dying condition. This is not the case, however, for we are not only living, but in a most prosperous condition; and, like many individuals enjoying prosperity, nothing is further from our thoughts than the idea of giving up the ghost. Our silence, heretofore, has not been from any lack of interest, but rather from a desire to avoid saying anything that might not be verified. With us cautiousness is largely developed, owing to the danger with which we are constantly threatened, of being washed down the Sacramento river by the first storm that blows up. This, certainly, is an unenviable position to be placed in, and rather discouraging to those who have spent a quarter of a century of their lives in trying to make homes for their families. Having been frequently disappointed by seeing our brightest prospects blighted just as we were about to realize on them, we have learned to be very careful how we express ourselves on the merits of anything before it is fully established. But now, that Yuba City Grange

Is no Longer an Experiment,

But an established fact, we make bold to proclaim it as such without any fear of contradiction in the future; unless we are covered up or driven out by the mining debris. Although this evil may eventually prove to be the ruin of this place, at the present time it will establish our Grange more securely. The farmers, recognizing that they have a common interest in abating this nuisance, will become more united; and unity is the strength of our society.

Victories.

Since the organization of this Grange we have had many difficulties to overcome, but by strictly attending to our own affairs and paying no attention to malicious insinuations, slander has been disarmed and prejudice softened; curiosity has pried itself to death, and those who looked with indignation on the farmers for their temerity in attempting to form themselves into societies, have come to the conclusion that, after all, it is no more than right that farmers, their wives, sons and daughters should assemble together, exchange ideas for mutual instruction and lighten labor by diffusing a knowledge of its aims and purposes.

We have now over 140 contributing members, and are constantly adding to our number. Although this winter has been one of unusual severity, the rains keeping the roads in an almost impassable condition, yet we always had a fair attendance at our meetings, which speaks well for the zeal of our members. Like careful husbandmen we have labored in the vineyard, cutting off all the dead and straggling branches, leaving nothing to obstruct the sun's genial rays or sap the strength of producing vines.

Our success is due in a great measure to the zeal manifested by the sisters in promoting the good of the Order. To them we are indebted for the many sumptuous feasts and pleasant hours spent in social converse. By their gentle influence the cold barriers of formality have been broken down, and men who isolated themselves from the sympathies and sufferings of their fellow men in the pursuit of some favorite scheme, when brought into the social relation have felt its softening influence. The presence of the sisters is at once restraining and refining; anything savoring of coarseness is studiously avoided in their presence. This gives an air of refinement to our meetings that cannot be obtained in those institutions from which ladies are excluded.

Music has become an attractive feature in our Grange. Many of our sisters are noted for possessing superior talents in this direction, and, when the labors of the day are not very pressing, we spend some time in its enjoyment. I would like to mention some of their names, but the fear of incurring their displeasure restrains me, for, although highly accomplished, vanity dwells not with them.

We are now making preparations for a grand picnic to be held on the 1st of May. This being Centennial year we expect to make it a grand success as soon as our arrangements are complete. I will let you know, for the benefit of those beyond our jurisdiction who may wish to participate. H.

[This letter has the ring of true progress. We commend it to the attention of all Patrons. We particularly enjoy receiving notes of improvement.—Eds. Press.]

Earnest Words from a Georgia Patron.

Editors Press:—I take several papers, but none of them afford me the desired information that your paper does. I like your paper because it is complete. I like it because it looks well to every matter that tends to the farmers' interest. I like your paper because it represents the class of people that earn their bread by the sweat of their brow. I like it because it is a friend to the Patrons of Husbandry.

I say, let us be proud of our Order for its cardinal principle, that of elevating its members morally, socially, intellectually and even pecuniarily. If we will only be faithful to our high calling we will make the Order of Patrons of Husbandry one of the grandest movements of the 19th century, if not the grandest inaugurated by man since the creation of the world. The rapid progress of the Order shows that its power and influence are destined soon to reach all civilization, and its mission is that of peace, plenty and contentment. For fear I weary you on this subject suffice it to say, I want the next generation to know that the world was benefited by us.

I have had strong inclinations for California for several years, but have never been so fully decided to go until I commenced taking the Rural Press. I am a farmer, and have an extensive experience in the business, and when I get to California I expect to continue to farm it.

We find a letter in your paper of Feb. 5th, written by Martha Wilson, of Santa Cruz, and my wife has made choice of Santa Cruz to locate in when we come. I have a wife and three little bright-eyed girls, and when I come I want to live in a settlement of sobriety, of good schools and among a church-going people.

W. V. Findley.

Calhoun, Gordon County, Georgia.

[We cannot but express our satisfaction at the receipt of a letter like the above. We value highly the testimonial that the Rural Press is doing such effective work to build up the prosperity of the State and enrich its treasures with earnest, upright citizens. We trust our friends in California will note the wide influence which our paper is exerting, and by aiding us continually with new support, enable us to do still wider and better work.—Eds. Press.]

Let the Grange Beautify the Lands.

Editors Press:—Alhambra Grange still lives and is earnest in her work, her disciples being few in number, but strong in the faith of the rights of the working man and woman of our land. We mourn our lost Pleiades, but not without hope; they are not as of old, blotted out, but reflect their own light in another sphere. We are reveling in sunshine and warmth; each day and hour give new revelation of life and growth. The plowman's merry whistle and glad song, keeping time with the liquid notes of the lark, all tell us of the beauteous promise of a plentiful harvest. Stillness on the waters of Carquinez straits, the emerald clad hill-tops of Contra Coata's range, nay, even the bold, bare outline of Monte Diablo's unveiled head, are so many tokens of the weather god's mild temper and give gladness and hope to the farmer, who feels that the planting season will soon be on the wane.

The last thought brings me to my text: *Plant trees!* Grangers are, as a body, rather original and varying in their forms and ceremonies, and appropriately and strikingly so to me was the item from a Grange paper of the planting of trees around the cemetery led of a a departed sister; and now is recorded by the Press a living enforcement of our ritual injunction as to the planting of trees in the schoolyard of our sister, Panama Grange. All hail, thrice hail to Panama Grange. Simply placing of a few roots and slips in the ground seems but a little act, but how great is the result. In a few years the baby Grangers that are in the cradle to-day will sport and gambol in many a mad frolic under the wide spreading, comfort giving arms of this miniature forest. Will not these fast growing babies thank, think you, the provident thoughtfulness that tempered, perhaps, an arid and seemingly barren soil to a fitness for the delicate and tender germs of the forest tree? and will not these happy, childish play hours be but a succession of minute peals of gladness as boy and girl vie with each other in chasing the shadow like day till it is lost in the hazy twilight?

Too many of our temples of learning are perched upon the barren hill-side, out alike in the biting cold and in the burning sun; year after year teacher and children look, oh, so longingly off to that beautiful shaded canon, that is so near and yet so far; too far, because the little school-bell will not reach its mystic depths to call them back to book duties. Will not this philanthropic movement of our Order be the initiative in a shade tree reform in and about the barren schoolyards of many a California schoolhouse?

But what of our Grange grounds? Why have not the sisters gala and festal days in our working rooms while the brothers are planting and building for themselves, wives and daughters monuments that will live, bloom and grow green when granite, marble and stone will be buried and hidden by the drifting dust of a few years? The beautifying of those yards wherein we have erected temples and consecrated altars to the refining processes of agriculture, would be the grandest embodiment of our living principles that could be given to the curious world. By thus artfully engraving our surroundings and making them symbolic of model Grange farms, we might, possibly, convince unbelievers of farming nobility, of the beauties, virtues and pleasures of agriculture, as did the great Roman general, Julius Agricola, in teaching the Britons the peaceful and pastoral arts, together with the culture of lands, thus making what to them had been the greatest hardship, that of belonging to the Roman empire, one of the greatest privileges they could ask.

Mrs. Maria B. Lander,
Sec'y Alhambra Grange.

A Sister's Home Talk to Patrons.

We print the following, because the lessons contained in it come home to many farmers and Patrons throughout the land. It is a report made to Eden Grange by Sister Perham, Chairman of the Committee on the Good of the Order:

Worthy Master:—When I was chosen as one of the Committee to introduce something for the good of the Order, I thought, and still think, you could not have made a more unwise selection. But the buried talent of sacred scripture came to my mind. And it is my motto to do all I can in a good cause. I shall make no excuses, but will ask your kind forbearance, and if I offend any one, I ask pardon beforehand. If I say anything that is not right I hope you will correct me.

Nature's invariable law is growth and action; where there is life there is no stand, but an ever-onward motion. And it is just as true with human laws. In all organizations, slothfulness and inactivity is death. But if members of an organization are active, there must be a reaching up to something nobler, better and higher than has yet been attained. Some animals excel in strength, some in fine sense of smell and keen sight. But man is said to excel them all in sense of mind.

So among men it is not the strong, the swift, the keen sighted, the quick eared or fine scented who rule the world, but the clear headed. Human beings are like pebbles on the seashore, by rubbing against each other they become rounded, smooth, polished, symmetrical. Alone they are rough, uncouth, repulsive. We need to meet together to rub off the rough corners and polish down into symmetry. We want to exchange views and learn to think.

Why should we not use the God-given mind, and nourish the soul with mental food? Difference of opinion is no crime. Progress toward truth is made by differences of opinion. The fault lies in bitterness of controversy. We should strive for equity and fairness, justly distributed burdens. In our intercourse with each other we should be charitable. In correcting errors we should be kind and affectionate, showing that we wish to lend a helping hand. Do not disparage or treat with contempt any effort made by a brother or sister. All should be helpful and ready to do all that is required of them, and should have their aims true and conduct perfect, minds bright by deep thinking and active use—but modest and useful as the humble grass, remembering that a noble mind and generous heart is often concealed beneath the garments of poverty. We should elevate our ideas and labor to extend the sphere of our thoughts. We should be studious and replete with the blossoms of observation and learning. We should cultivate all good qualities, and, above all, be cheerful, united and replete with the flowers of good works.

I think I can say, truthfully, Eden Grange has good material to work with to build a live Grange. We can grow in good standing, financially, socially and intellectually, if all would be in earnest to do what is for their interest to do. Let us not be laggards and hindrances to each other, but give a helping hand and heart to the good work. A more noble and better cause never was started; and we would prove recreant to our own interest if we fail to help the work along.

Do not say, what have we done? but what *can* we do? and go to work and let it be seen that you are in earnest. It will not be long before the Grange will be alive and ready; *ready* to do a work that none will blush to speak of. There is not a member in the Grange but can help if he will put away that listless "don't care" feeling, and let people know that you are determined; then, and not till then, will the track be cleared of all obstacles which have been heaped in our path to hinder and turn us from the right. We must learn to depend on ourselves if we would prosper. Past experience should teach us the fallacy of depending on the influence that the wealthy give. I do not deny that they have a great influence, but it is exceptional when it tends to the advantage of the producer. The opulent are independent of us; therefore it is only with a philanthropic feeling that they lend their influence. And we do not find many philanthropists. We must learn to depend on our own efficiency if we would succeed. Failure is not the question if we are true to ourselves. Why cannot we do our own business and save the profits arising therefrom? If other Granges can, we can. They have given demonstrative proof of their success, contrary to all warnings from self-constituted, financially interested friends—those of long standing, such as have grown rich, "not from their own exhaustive labor," but through the business they (our friends) have done for us. We have done the exhaustive work, but had not the qualifications necessary for the business of buying and selling for ourselves. And they take a considerable of pains to have us understand it is all for our good. Beware of business, for it cannot be expected that those that labor can understand anything about buying or selling and perforce will get into trouble, which they (our kind friends) would shield us from. It is best to thank them for their kind advice, but let them know by experience that we can do business for ourselves, and do it in such a way that we can save time and means for recreation and social and intellectual culture.

I think all will admit that privilege has been denied the working classes. It seems to me that the Grange is just what has been needed to bring about the desired change, if we will not be faint hearted, but work in faith, believing that God and right are on our side.

I will say once more, if we are only true to ourselves, working faithfully and honestly, paying no attention to reports bruited about on purpose to frighten the timid, we must and will succeed.

Colusa Grange.

Editors Press:—I promised to write you about the Parks dam controversy, but as other and more able correspondents living in the vicinity of the dam have written the facts in the case, it was unnecessary for me to say anything. But I will say a few words about Granges in general, and Colusa Grange, No. 48, in particular. We have come to the conclusion that we cannot see through the legerdemain of E. Morgan & Son, to control the price of wheat in Liverpool, or regulate the currency of the United States, or stop the Government steal at Washington, but we can meet as Patrons, farmers, friends and neighbors in a social way, to

Discuss the Best Methods

To perform farm work, raise stock and chickens, and make butter, cheese, etc. We meet every two weeks, and the subject to be discussed is given out two weeks in advance, giving all members an opportunity to prepare themselves, and, I can assure you, we have some very interesting meetings. Our last subject was "Summer Fallowing," and the propriety of cutting and feeding of wheat to keep it from falling. We had a large attendance, considering the condition of the roads, and if all that was said could have been reported and reproduced in your excellent paper, it would have been of interest to every farmer in the State. We find such meetings are not only very pleasant but very instructive. Our next subject will be the "Poultry Yard," and we expect much from the lady members on that occasion. We are making another move, I think in the right direction, and every Grange in the State would do well to take the same into consideration, that is, of establishing

A Farmer's Library.

Suppose every member pay into the library fund as much as it would cost him to buy one nice volume, and that money be placed in the hands of a committee, to be invested to the best advantage, we would then have one or more volumes for every member, and by a judicious system of exchange the Patrons would have all the farm literature they could digest for a year or two. There is no public library in Colusa county, and there are doubtless many counties in the State in the same situation. There is, I think, Mr. Editors, an opening for the Patrons to do much good both for themselves and the country. We have been having an unusual amount of rain for the season of the year; the roads are almost impassable. The river came over the banks March 3d, and remains so still. On the 11th it was as high at my place as it was when the Parks dam was cut; had the dam been in it would have been at least a foot higher, which would have ruptured the levee in many places along the river, overflowing much valuable land and doing a great amount of damage to grain, etc. Volunteer grain is far advanced; mine will measure two and one-half feet in hight. I am now mowing and feeding it off as fast as possible, many have ruined in sheep, and with all these precautions much must fall down on our river land. Our citizens are much excited over the Parks dam bill; it is life or death to many of them. It is to be hoped that the Senate will be wise enough to protect them against its re-erection, that they may not again be obliged to take the law into their own hands. Yours truly,

J. R. Totman.

Colusa, March 5th.

The State Grange of Indiana amended its by-laws so that any one having lost his membership and who has conducted himself as a gentleman, can be admitted as an Ancient Patron by paying half the fee required of new applicants.

From the Granges.

Stanislaus County Pomona Grange.

EDITORS PRESS.—The Stanislaus county Pomona Grange met at Grange hall, Modesto, on the 13th inst., Worthy Master H. W. Browse in the chair. The attendance was large, notwithstanding the bad condition of the roads, and the inclemency of the weather. A class of eight received the fifth degree, at the conclusion of which we had a feast similar to the one held five weeks previous, at the time of organization. All seemed to have enjoyed themselves well. The music by Sister J. Service and others added much to the interest of the occasion. Various important subjects were discussed. The discussion on the regulations relative to the formation of Fifth Degree Granges was participated in by many. It took a wide range and was ably conducted. On the evening of the first day the secret work was exemplified by various members. The following were elected members of our Executive Committee: C. B. Ingalls, B. F. Parks, and J. D. Harp. The Grange adjourned on the evening of the 14th inst., to meet at Modesto on the first Monday in May.

VITAL E. BANGS, Sec'y.

Modesto, Mar. 16th, 1876.

Rincon Grange.

EDITORS PRESS:—Rest assured that I will do all I can for the RURAL PRESS. I consider it the best and cheapest paper for the farmers that can be found anywhere. Some say they have not time to read, never consider for a moment that time it takes to read the RURAL PRESS is time well spent.

Our grain crops are looking finely. Never was there a better prospect for a bountiful harvest than at the present. There has been double the amount of grain sowed this year than any year previous. I hear it generally expressed that this is the best season we have ever had, in the knowledge of the oldest settlers.

The Grangers here are trying to get up a joint stock company for the purpose of building a mill. We are getting tired of going 30 miles to get our grain ground. We have now about $2,000 subscribed; if we get another thousand we propose to go to work and have our mill ready for the incoming crop. Please excuse this short letter, for I am a poor writer, but believe me, Mr. Editor, I shall ever work for the best interest of the RURAL PRESS.

JOHN TAYLOR.

Chino, San Bernardino Co., Cal.

Temescal Grange.

On Saturday last three members received the 4th degree. Worthy Master Bagge and nearly all the officers were present. Some 60 sat down to the harvest feast. The tables were handsomely and bountifully supplied. Worthy Master Webster, of the State Grange, (who still modestly fills a great space in his local Grange), made a sound speech showing the Grange to be in the solidifying stage of its permanent growth. Bro. T. H. Merry, Deputy, spoke eloquently concerning the progress, benefits and objects of the Order, and the duty of its members. Bro. Amos Adams, State Secretary, in his candid but cheerful way, assured the Patrons present of the improved feeling of the Order in different parts of the State, indicated by letters and reports received at his office. Brief remarks were made by various other brothers and sisters. The holding of a Centennial pic-nic in Alameda county was favorably discussed with Bro. Dennis of Eden Grange. Action on amendment to the by-laws and the report of the committee on a free market plan for Oakland was postponed till the next meeting, April 4th.

Election of Officers.

NEW SALEM GRANGE, No. 196, PASKENTA, TEHAMA CO., CAL.—Election, March 4th, 1876: W. W. Batkin, M.; O. Harris, O.; C. H. Blaksley, L; W. F. Gray, S.; S. F. Harris, A. S.; C. Harris, C.; John Fossen, T.; J. R. Whitlock, Sec'y; J. H. Wilder, G. K.; Mrs. E. Blaksley, Ceres; Mrs. C. Wilder, Pomona; Mrs. J. Batkin, Flora; Mrs. M. Harris, L. A. S.

In Memoriam.

R. Thompson, Secretary, sends us the following: At a meeting of the Calaveras Grange, No. 182, Saturday, March 11th, 1876, the following preamble and resolutions were submitted and adopted:

WHEREAS, Our beloved sister, MRS. KATE ROGERS, has been suddenly called by the solemn voice of death from the active scenes of useful life, therefore,

Resolved, That in the death of Sister ROGERS our Grange has lost one of its most efficient charter members, the community an intelligent, energetic farmer, and an upright, social, kind hearted woman; her children an affectionate devoted mother.

Resolved, That we extend to her children, now doubly orphaned, our heartfelt sympathy in their sad bereavement.

Resolved, That our charter be draped in mourning and that we wear the usual badge for 60 days.

Resolved, That these resolutions be spread upon the record, and a copy sent to the RURAL PRESS.—[Committee: R. Thompson, Mrs. E. J. Willits, C. Topper.

A TELEGRAM from Naples reports that the long expected eruption of Mount Vesuvius commenced on Friday night, and lava is flowing toward Pompeii. Large columns of vapor rise from the summit and reflect the fire beneath. Vast quantities of ashes are thrown upward and the sight is magnificent.

AGRICULTURAL NOTES.

California.

CONTRA COSTA.

APPOINTMENTS REVOKED.—*Gazette*, March 18: Satisfied that the work in poisoning squirrels cannot be advantageously or profitably prosecuted at this season, when grass feed is so abundant, and is believed to neutralize the effects of poison eaten with it if at all, the Board of Supervisors, at their meeting on Monday last, on considerations of economy, revoked the appointment of all the inspectors, to suspend their work until a more favorable season for its effective prosecution.

KERN.

DEPLORABLE LOSS.—*Courier*, March 15: An item announcing the departure for Arizona or New Mexico of a large band of sheep from this county, the property of Perry & Helm, appeared in the *Courier* some time ago. We regret to learn that the proprietors have met with very severe losses on the way. At last accounts they were on the Colorado with their sheep, and out of a band of 12,000 but 4,000 remained. The loss is attributed to lack of feed and water, exposure to inclement weather, etc.

SHEEP AND WOOL ASSESSED SEPARATELY.—Donnell has commenced the active duties of Assessor, devoting himself more especially to the assessment of personal property, stock, etc. A new practice which he has introduced in this county, while it is viewed by some as a hardship, seems to be nothing more than rational, right and equitable. We refer to the assessment of sheep and wool separately. It has been the custom heretofore to assess the sheep at so much per head, irrespective of the wool upon them at the time. Thus a sheep with wool worth a dollar or a dollar and a half upon his back was put down at the same valuation of one who had just been shorn of wool to the value of that amount, a manifest injustice to the county or the sheep men. Donnell has adopted the rule of assessing the sheep now at uniform rate, while he has deputies at all the stations on the line of the railroad in the county to assess the wool as it is shipped, so that there is no chance for it to escape taxation. The Assessor has written to the Attorney General of the State for his opinion as to the right and propriety of the proceeding, and the answer justifies and commends his action in the matter.

SHEARING.—*Californian*, March 16: Sheep shearing is in full blast. Kern county will ship a larger amount of wool than at any previous season. The flocks are in fine condition and will yield good, and generally, clean fleeces. The abundance of feed on the plains has done away to some extent with the use of corrals. The depression in the wool market will in a great measure be made up in this section by the better weight and better quality.

LOS ANGELES.

SHEEP ON SMALL FARMS.—*Land Journal*: During the present year the quantity of sheep in the county has considerably diminished on account of the increased area placed under cultivation by the farmer and fruit raiser. Wheat, barley and young trees have taken the place of large flocks which the increase in the value of land contingent upon the growth of the city of Los Angeles has driven southward. But the wool growing industry still ranks as one of the great sources of wealth in our county, though the day in which it is carried on by large capitalists will soon have passed away, to be succeeded by that in which it will be customary for each farmer to have his small flock of sheep. In the older countries where the farmer is compelled, in order to make a living, to get the utmost cent out of his farm, it is found to advantage to maintain small flocks of a few hundred sheep, and if that be the case, where it is necessary to buy feed or at least to raise feed on purpose for the animals and to provide them with shelter from the inclemency of the weather it would answer the farmer's purpose to pursue the same course in this county where shelter is unnecessary and where good food, such as alfalfa, is not only abundant but cheap, where the price of the land is lower and a market for both the wool and the carcass can be reached with but little trouble or expense.

THE LOMAS DE SANTIAGO RANCH.—A bill in equity has been filed in the United States Circuit Court by Walter Van Dyke, Esq., United States Attorney, on behalf of the United States of America, against Benjamin Flint, Thomas Flint, Llewellyn Bixby, James Irvine and Wm. F. Glassell. The bill recites that on the 26th of October, 1852, Teodocia Yorba, since deceased, presented to the Board of Land Commissioners of California a petition, in which he claimed in fee a tract of land in Los Angeles, known as the Lomas de Santiago, containing four square leagues, which he alleges was granted to him on the 25th of May, 1846, by Pio Pico, Constitutional Governor of California. The petition further represented that the grant had received the approval of the Department of California, and that he had judicial possession of the granted land. On the 15th of August, 1854, the Commissioners confirmed the land to Yorba, which is described as follows: On the east by the Sierra; on the west by Serito de Las Ranas and the boundary of the San Joaquin; on the south by the Rancho de Toro; on the north by the line of Santa Ana. On the 30th of November, 1855, Pacificus Ord, Attorney for the United States, petitioned the United States District Court for Southern California for a revision of the decree of the Commissioners, and on the 11th of December, 1856, the court affirmed that decree for eleven square leagues of land within the boundaries specified in the grant; provided that if there be less than 11 square leagues included in the boundaries mentioned, the confirmation was made for the less quantity. The court also allowed an appeal to the United States Supreme Court, but, at the suggestion of the Attorney-General that the appeal would not be prosecuted, the order was vacated. The bill alleges that the grant was fraudulently procured by Yorba and Pico and their associates; that the grant purporting to have been made on May 26th, 1846, was not, in fact, made until about the 26th of October, 1846, and after the State of California came under the Government of the United States, when the powers and functions of Pico as Governor had ceased. It is charged that the confirmation and grant by the Commissioners and the affirmance thereof by the court were obtained by Yorba and assistants by fraud. That Yorba omitted to exhibit complete record of the proceedings, and that he exhibited only copies of extracts from the grant and act of judicial possession. It is alleged that on May 8th, 1840, the Mexican government granted Yorba 11 square leagues of land in the counties of Sacramento, San Joaquin and Amador, known as the Arroyo Seco, which grant was subsequently confirmed by the United States. That by the laws of Mexico not more than 11 square leagues of land could be granted to the same person, and that, therefore, at the time he obtained the grant to the Lomas de Santiago, he was disqualified from receiving a grant of any lands but the Arroyo Seco. These facts Yorba fraudulently concealed. It is also alleged that the lands were fraudulently surveyed. A decree is asked that the grant by Pico to Yorba be declared fraudulent and invalid, and that the confirmation was obtained by fraud; that the grant and confirmation be annulled, the patent cancelled, and that the defendants be estopped from asserting any title thereunder.

NAPA.

RYE FROM SALT MARSH.—*Register*, Mar. 18: Mr. Boke, who owns a ranch adjoining Judge Stanley's, just above Soscol, brought into our office Wednesday some specimen bunches of rye plucked from a field on Judge Stanley's place. The stalks are some four feet in hight, and have a very healthy and vigorous appearance, and are said to be fair samples of the field of 35 acres from which they were pulled. This rye is the first crop upon reclaimed salt marsh, (Judge Stanley having engaged quite extensively in the work of reclamation) and was sown in connection with alfalfa. It will be cut for hay, and will doubtless turn out some four or five tons to the acre. Mr. Boke is reclaiming some salt marsh on his place, and he takes an encouraging view of the reclamation and cultivation of this class of soil.

SOME POINTS ABOUT BARLEY.—The fact that barley is shipped to Napa county from San Francisco in considerable quantities, while large quantities are raised here and sent to the San Francisco market, is a rather peculiar circumstance to the uninitiated, who would naturally ask, "Why this waste for freightage?" A little investigation develops the fact that the barley bought at San Francisco for shipment here is of an inferior grade, being raised along the coast, where the barley is invariably poorer that that raised in this valley, where the barley is of excellent quality. While barley is quoted in San Francisco market at from $1.25 to $1.35, the price for choice lots here may be $1.50—there being always a difference in price corresponding to the difference in the quality of the grain. This is a point in favor of Napa valley for barley culture. It happens, however, that the very common desire to carry products to or purchase in the largest market leads to some rather queer and not entirely satisfactory results. On one occasion a certain company wanted to purchase a lot of barley owned by parties in the vicinity of Monticello. The would-be and bound-to-be purchasers made an offer, which was refused, and the barley was sent to San Francisco. But the company kept their eyes upon it all the time; bought it, had it re-shipped, and after paying purchase price and cost of transportation, found that they had got the barley at a sum less than they offered in the first place. An instance going to show that it isn't always judicious to buy in a large market away from home in preference to a smaller one at home, may also be cited in this connection. A gentleman in Napa, who wanted to buy some grain, learned the figures of a grain dealer here, and found them a trifle above San Francisco quotations; sent below for his grain, found it of inferior quality, shipped it back, and purchased of the local dealer. The moral is: Don't go away from home to trade unless you know you can do better away from home than at home.

PLACER.

POTATOES.—*Herald*, Mar. 18: During the past season no crop in the State paid better than potatoes, but notwithstanding the profitableness of the crop, large quantities have been shipped to the State from Utah during the past winter, and the price and demand here made it remunerative to those who had engaged in the speculation. This ought not to be the case again. All who have land adapted to raising them should pay attention to this matter and plant some potatoes.

SAN DIEGO.

A LARGE DAIRY.—*World*, Mar. 11: It was a mistake about those butter barrels, that we mentioned on Saturday, going to San Bernardino. The barrels belonged to John Treat, Esq., of Cuyamaca ranch, and were, together with a lot of fine English salt, going forward to his large dairy on that ranch. Mr. Treat keeps a large number of milch cows, and last year made 300 barrels of butter on his ranch. This county is peculiarly adapted to making butter, and instead of bringing butter here from a distance, we should ship large amounts of it.

SHIPMENT OF HORSES.—The shipment of horses from California is a new trade. It is one which at first glance, it might be said, would never pay; but when the Californian, familiar with the claim of our animals for endurance, spirit and toughess, is considered, it is by no means certain that a good trade may not be established in this line. Mr. Forster, of this county, at least, is disposed to solve the question, having sent forward 1,200 or 1,500 of horses from his ranches, overland, to enter the army and to be used on railroads, etc. We shall look with interest to a report from these animals. If they have claims to superiority over other horses, they will be stated as they are known. The outfit should yield, at the low price of $50, $7,500, or thereabouts.

SAN LUIS OBISPO.

AN IMPORTED STALLION.—*Tribune*, Mar. 11: We take pleasure in announcing to the horsemen of San Luis Obispo that Mr. H. S. Rembaugh is importing the finest bred stallion ever brought into Southern California, with the view to the improvement of the horse stock of the county. This horse is the celebrated young stallion "A. T. Stewart," bred by D. L. Harris, of Fayette county, Kentucky. He was foaled April 15th, 1872. His sire was Herr's Mambrino Patchen, son of Mambrino Chief, and sire of Lady Stout. He is described by those who have seen him, as a dark brown colt, of commanding presence, and shows a fine gait, and is just suited to the wants of California, where large size, united with high form and finish and fine trotting action are demanded by the public. He is an inbred Mambrino, with a strong dash of Pilot blood, and runs through numerous lines to imported Diomed and imported Messenger.

SANTA BARBARA.

GROWTH OF BARLEY.—*Index*, Mar. 16: Thomas McNulta has left at the public library a cluster of barley stalks, growing from one seed. As a marvelous vegetable curiosity, showing the wonderful productiveness of our lands, he has had it placed where strangers can examine it. Those who have counted say that there are over 400 stalks that average over five feet in length. It was taken from Mr. Andrew Bailard's field in Carpinteria, and there are plenty more there showing the same wonderful growth.

HONEY.—*Press*, Mar. 14: Yesterday afternoon we saw the first box of this season's honey from the rancho of G. C. Packard, in the Montecito. The honey, about five and a half pounds, is of a pale yellow color and good quality—made from the flower of the alfileria. Mr. Packard has at the present time 60 stands of hives. He says that the season is a month earlier this year than he has known it for a long time, and that if the last rains had not come, "swarming" would have already taken place. He thinks the prospects for the honey crop this year are greatly in excess of many previous years. The box he brought in yesterday was filled in the short space of two weeks.

SONOMA.

PORTUGESE FARMERS.—*Argus*, Mar. 17: Within the last two years many Portugese have taken up their residence in Petaluma township and engaged in farming and gardening, in which pursuits they have met with great success. They have rented or purchased small tracts of land which they have carefully and economically cultivated with pecuniary rewards commensurate with their industry and perseverance. They are a quiet, law abiding, hard-working class of people, and constitute a desirable element of our population. They have generally chosen dry, sandy lands within three to six miles of town, which a few years ago were considered of little value, but are now known to be among the most productive and valuable in the state. Their farms range in extent from 10 to 30 acres, and by their system of culture are made to yield as much as tracts that are four times as large which are cultivated in the old ship-shod fashion. Some of their neighbors who have noticed the results of their mode of operations have taken a hint from their success and have inaugurated a more thorough and systematic course which, it may safely be assumed, they will not abandon. These slow, plodding, diligent workers from the old world have made many waste places in our vicinity to blossom as the rose, and they have set us an example which may be followed with much profit by a majority of our old residents. It is estimated that within the last two years about 50 Portugese families have located in this township.

WHAT MAY BE DONE.—*Democrat*, Mar. 18: That it is not too late to sow grain is proven by 25 years' experience in this county. Grain sown much later than now will, under favorable circumstances, produce largely. J. M. Laughlin informs us that in 1857 or '58 a crop was put in on the Taylor place, on Mark West creek, when it was owned by T. U. Smith, as late as the 25th of April, from which 60 bushels of wheat was harvested to the acre. Much of the land left for late grain will be summer fallowed, or left for volunteer hay. The prospect was never better for forage crops. Farmers are beginning to realize the fact that corn pays more to the acre than wheat. The heavy cash outlay required to harvest, handle and sack a wheat crop is saved. A man can do most of

(Continued on Page 204.)

"Allow for the Crawl."—A Homily.

By John G. Saxe.

You have often, no doubt, had occasion to note,
Though the garment, at first, seemed certain to please,
That, after some wearing, the sleeve of the coat
Tow'rd the shoulder was crawling, by easy degrees;
And that's what the clothier, of course, had in mind,
When he said to a customer, "Long?—not at all!
The sleeve is just right—as you'll presently find—
In cutting the coat we allow for the *crawl!*"

The expression was one wholly new to me then;
But it set me to thinking how well it applies,
Not merely to coats, but to women and men,
In matters of life as they daily arise;
Consider the shrinkage in human affairs—
The promise, how great; the performance, how small;
And, lest disappointment should come unawares,
Remember the sleeve—and "allow for the crawl!"

The statesman who asks for your ballot to save
Your country, so rashly imperiled to-day,
May covet an office and not be a knave,
Whatever the fierce Opposition may say.
But the "platform" to which he so valiantly clings,
By which he proposes to stand or to fall—
"Resolutions," remember, are slippery things—
And in politics always "allow for the crawl!"

You are deeply in love with the sweetest of girls;
An angel in hoops—only wanting the wings!
(If angels could purchase such beautiful curls!)
Like a seraph she smiles; like a siren she sings!
Ah! splendid and vast are the fancies of youth;
But down to plain facts they must finally fall;
And happy the couple who, finding the truth,
In conjugal kindness "allow for the crawl!"

In brief, recollect that in human affairs:
In social connections; in travel and trade;
In courtship and marriage; in sermons and prayers,
Some grains of concession should always be made.
In fine, be a prudent, though generous man;
Unfriendly to none, and veracious with all;
Believe in your neighbor as much as you can,
But always be sure to "allow for the crawl."

Woman on the Farm.

[Written for the Press by Mrs. S. S. C.]

The Press of January 29th has an article written by Mrs. M. E. Tuttle, for which I have wanted to thank her ever since I read it; but have been waiting for others more competent, and as none have yet responded, I will wait no longer. It was what I had long been wanting to see, for the other side have had it all their own way, with no contradictions whatever, until here comes Mrs. Tuttle with the cudgel, and right well she uses it in defense of us overworked—well, I cannot say "tillers of the soil," but I can say *toilers* over the cook stove, wash tub, ironing table, sewing machine, etc.

When I read those other letters recommending clean collars, cuffs and nicely brushed hair for the breakfast table, I thought, Oh! they do not do their own work, and have time for those things. Now, I generally wear a collar—feel badly to be caught without one; but I don't see why I should, for a man's working dress is honorable and why should not woman's be, provided she is as clean as her work will allow her to be? I do know some housekeepers who can cook without soiling themselves, and there are others who cannot; unfortunately, I am of the latter class, so that is one reason why, to me, Mrs. T.'s letter was such a gleam of sunshine in my shady road.

I generally have four men to cook for, four children, myself and husband, and no help, except occasionally as my husband has time to hang out the clothes on wash day, or wipe the dishes when I am very tired, or fasten the childrens' clothes some mornings when my hands are making bread. We never have cold bread, except for dinner, and notwithstanding so much has been said and written about cold bread being so healthy, I can show four as healthy, hearty, happy children as California generally produces. The oldest is eight, and if she did not go to school could help me considerably. I have been in this State six years, and when I came I had never done housework of any kind; did not know anything of the mysteries of a kitchen—the place in which the husband usually thinks there is so little to be done. Housekeeping was new and unknown to me; but my husband had been a soldier during the late war and prided himself upon his knowledge of cooking, so he imparted a few ideas to me, and with this suggestion and that, I made very good progress, and the neighbors, too, were very kind, and showed and helped me do many things, which but for their friendly assistance I would have been a long time learning alone. Washing was the hardest of all, (and is yet). Stand up and wash I could not, so down on the floor I put my tub and spread a few sacks in front of it and on my knees I went to work, but I could not wring, though I tried so hard. Just at that critical moment (to me) in came an instructor, and with his help in a few hours my clothes were on the line. Ever since that eventful day I have had a most kindly feeling for bachelors, and hope there are others who have been as useful to some other sister as was that one to me, that day. Well, I washed that way for months and then after repeated attempts, found I could stand up and wash.

One day my husband asked for chicken pie for dinner; but how to get the chicken prepared I did not know, so he came to the rescue, saying he had "picked" many a one in the army and would do that much if I could make the pie, but of that I knew nothing. Fortunately, just as the chicken was nicely dressed, a dear old lady came to call on us, and to her I at once appealed for aid; and what a pie it was (to my eyes) when nicely browned and steaming on the table! I prevailed upon the old lady to stay and enjoy it with us, and she gave me many valuable hints about other things.

My husband taught school the two first years and I did not have a great deal to do during that time, and I wore spotless collars and cuffs and kept my two little ones nice and tidy; but as time rolled on there came more babies; also, we bought a place, hired several men and began life on a farm. Then my real troubles began—up at half-past four in the morning, and such a hurry to get breakfast, so as not to keep the men waiting, and if I were a little behindhand to hear, "What is the matter with the stove?" "Isn't the wood dry?" "Mr. A's men have been ont half an hour;" not mentioning Mr. A. has a Chinese cook who has no little ones to look after or to keep him awake at night, while the wife and mother is often just able to get ont of bed and move slowly around. Oh I have had many such mornings, and wondered if breakfast would ever be over and the dishes washed and put away.

I confess I was discouraged at first, and thought I could not stand it, but time has modified it all, and if it were not for the "early to rise" I could get along very well. If those advocates of fanltless collars and cuffs would only let us wait until after breakfast I could suit them, for I always tidy up then, except wash days, when it is all I can do to get through with the necessary housework and cook the three meals and get the clothes on the line by four o'clock.

The summer is a hard time,—so much more work to do,—headers and threshers for so long, then teamsters to haul the wheat off; it makes so many to cook for that my strength almost fails. I generally have help during that time for a few weeks, but it takes both of us to do what I had been doing alone.

Now, do not conclude I have no recreation whatever; it is true I get no time to visit my neighbors, but once every year I take a trip either to Stockton, San Francisco, or Sacramento, and spend a few weeks. I have attended two State Grange meetings, and last year the fair at Sacramento. I always come home rested and ready to go back to my duties with renewed energy.

If my experience, as a young beginner, carries even one little gleam of encouragement, then I am satisfied that I have taken time to write it; for it has been taken up and laid aside for other things many times since I commenced it. Ere I conclude let me tell you the weekly visits of the Rural Press are ever welcome, and that I gain much useful information from its well filled columns.

March, 1876.

Look Out, Young Men.

When it is said of a man, "He drinks," and it can be proven, what store wants him for a clerk? What church wants him for a member? Who will trust him? What dying man will appoint him his executor? He may have been 40 years in building his reputation—it goes down. Letters of recommendation, the backing of business firms, a brilliant ancestry cannot save him. The world shies off. Why? It is whispered all through the community "He drinks! He drinks!"

When a young man loses his reputation for sobriety, he might as well be at the bottom of the sea. There are young men here who have their good name as their only capital. Your father has started you ont in city life. He could only give you an education. He started you, however, under Christian influences. You have come to the city. You are now achieving your own fortune under God, by your own right arm.

Now look ont, young man, that there is no doubt of your sobriety. Do not create any suspicion by going in and ont of liquor establishments, or by any odor of your breath, or by any unnatural flush of your cheek. You cannot afford it, for your good name is your only capital, and when that is blasted with the reputation of taking strong drink, all is gone.—*Pomeroy's Democrat.*

Effect of Cold on Combs.—Crisp, cold mornings, so acceptable to the human family, are fatal, frequently, to such delicate things as tortoise-shell combs, and even with cautious using they suddenly snap asunder. By carefully placing the edges together, following the grain of the shell, then wrapping or covering the broken place with papers, the fissure may be closed by holding it between hot pincers, applying a moderate pressure, at the same time being sure that the heat is not intense enough to burn the shell.

"You didn't laugh at my stupidity before we were married; you always said I was a duck of lover," grumbled a complaining husband. "Yes, that's so," replied the wife; "and a duck of a lover is almost sure to make a goose of a husband."

The Value of Small Savings.

Few young men have a just appreciation of the importance of small savings at the ontset of life. Wealth has quite as powerful a tendency to gather in masses as it has to dissolve into fragments and be scattered. Every little helps; dimes soon become dollars, and dollars can be made to double themselves in due course of time. Most young men, as well as their elders, have small vices, but seldom stop to think what these vices cost in cash, or what might be accomplished with this cash, were it wisely instead of uselessly invested. Suppose a young man is addicted to smoking. He might affect a worse vice, but we will take a mild one for example.

In a week he will consume a quarter of a pound of smoking tobacco (twenty-five cents) and three cigars per day (which is very moderate) at 10 cents apiece, and by the end of the week will have puffed two dollars and thirty-five cents into the air. Three cigars a day at 10 cents apiece make 30 cents, and a 30 cents a day for a week make two dollars and ten cents, which, added to the quarter of a pound of tobacco, makes two dollars and thirty-five cents. In a year this would amount to $122.20. We will suppose the young man to be 21 years of age. Now, instead of smoking this coin away, suppose he should place it in a savings bank at nine per cent. interest, and let it remain there, how much would this little economy alone amount to if he faithfully followed for 10 years? At the end of the first year, as we have said, he would have $122.20. At the end of the second year the interest on this would bring it up to $131.97, plus $122.20 more which he has saved in the same way, making a total at the end of the second year of $254.17. This, at the end of the third year, by reason of the interest, would amount to $277.03, and, plus the $122.20 additional, would make a total of $399.23 saved in three years. Following the same rule of calculation he would be worth $557.34 at the end of the fourth year; $729 67 at the end of the fifth year, $917.48 at the end of the sixth year, $1,122.25 at the end of the seventh year, $1,345.45 at the end of the eighth year, $1,588.75 at the end of the ninth year, and $1,853.96 at the end of the tenth year. Should he deposit his savings on this score every three months instead of annually, the gross sum would amount to more than $1,900. He would be worth that much, at least, at the age of 31, and many a man starts in business on a less sum.

If he not only avoids smoking, but drinking, billiard-playing, and all other amusements and convivialities that are not at all necessary to his happiness, and saves his money prudently, is there any doubt but that he will be able, at his 31st year, to muster ample capital to safely engage in the business he has been learning thoroughly in the meantime? These calculations are of course based on the supposition that his employment is unbroken. Few young men who secure staple situations need ever lose them if they attend strictly to their business. Billiard playing costs about three times what smoking does, and there is no limit whatever to the cost of drinking.

If a young man is born to fortune it is advisable that he should devote time to acquiring graceful accomplishments, and it is well enough that he should indulge a taste for lavish wardrobes; but if he is poor and has his way to make in the world, his sole business from the ontset should be to prepare himself for making money, and to learn how to make it. He can do nothing without capital, and while he is learning his business he should be gradually acquiring his capital. It is the easiest thing in the world for him to do it if he only pursues the right course, and pursues it systematically. If the government seeks to prepare a future officer of the army it takes a boy 17 or 18 years of age, withdraws him from parental control, excludes him from society, guards him against prevailing vices and frivolities, and requires that he shall devote a series of years to the patient and unremitting study of his profession. When he has mastered its theory, he he is usually transplanted to some remote frontier post, there to participate in its actual practice in a subordinate capacity. All our great generals have been trained and disciplined in this manner. The young civilian has severer struggles before him than the military cadet, and has need of more fortitude, self-denial and sagacity throughout. He should therefore make up his mind at the outset that money is the main, essential object of his worldly pursuits (no matter what may be said to the contrary), and stick tenaciously to a life of policy and conduct that will eventually lead him on to success and comparative fortune.

Sixteen ladies gathered in front of Williston (Vt.) seminary, during a recent sleighing time, and, shovel in hand, proceeded to remove the snow from the sidewalk in front of the premises, while professors and students looked on in amazement. On the completion of the work the ladies received three cheers, and departed in good order. The seminary authorities, it is hoped, feel properly ashamed of themselves.

William Hazlitt says: "I hate anything that occupies more space than it is worth; I hate to see a load of bandboxes go along the street, and I hate to see a parcel of big words without anything in them."

Some people have softening of the brain, but we are convinced that the world suffers more from those who have hardening of the heart.

A Useful but Obscure Life.

Here is the record of an obscure life which may be worth the attention of that intelligent, well-to-do majority, which is made up, after all, of obscure people. It is a story which suits all classes or any time, yet perhaps this especial time best, when men and women in the cities who have anxiously tried to be of service to God and their fellow-men are apt to be daunted and depressed by the contrast between the great work accomplished by others and their own domestic quiet labor. The story is of a poor seamstress in a mill town in Indiana, who was left a widow some 15 years ago, dependent on her needle for her daily bread. She lived near one of the factories where hundreds of both sexes were employed, and night and morning large gangs of girls and men passed her door miserably hungry and gloomy, or more miserably boisterous. It was a mill where the hands are driven like cattle and regarded as cattle in every other sense. The woman who saw the young girls pass so often that she learned to know their faces, pitied them as a mother might have done. Indeed, we question if she had any exceptional quality or means of influence in the world other than her motherly nature. She was an uneducated, homely little body, but with patience and tenderness enough in her heart to serve all the children in the world. "I wanted," she said, "to give these girls a chance like other women; they had no chance as it was to be anything better than the mules which drew away the stuff they spun."

Our readers will imagine, on doubt, that by some virtuous hocus-pocus, such as we read of in reform novels, she suddenly converted the mill into a model abode of order and refinement, and made of its drunken, vicious inmates amiable Christian characters. We have read of such a change being produced by bringing the mill girls in to listen to Beethoven and Mrs. Browning. Our poor reformer took one—just one girl into her kitchen. She half starved herself to do that. She made the girl clean, and taught her to remain clean; taught her to scrub, wash, cook, and tell the truth. It took years to accomplish so much; years of patience and self-sacrifice. When she had finished, instead of a coarse, dirty animal, she had molded for use and service in the world a clean-minded, honest woman, with skillful hands and intelligent brain. She took one after another of these wretched girls and trained them as seamstresses, cooks, chambermaids, at her own cost of time and money. Situations were readily found for them; the housekeepers of the town soon discovered how different the women were whom she had trained from any others; but she never parted with them unless she was confident that the work she had begun would be carried on in the same hearty spirit. In two cases the girls whom she thus adopted were deformed and sickly. These both remained with her until her death, supporting themselves by some light handiwork. In other cases they were rescued from worse places than the mill. A few of the girls became sincere Christians, but all (except one) led virtuous, honest, useful lives. One peculiar effect of her training was that her pupils caught from her her own genial, helpful spirit; they were missionaries of kindness in their humble world; and a cheerful face in a cook, or gentle, tender manner in a nursemaid, are not merits so common as to be despised.

The widow and her work were never known to fame, even in the town where she lived. People supposed when she took a larger house so as to accommodate more inmates that she kept a kind of intelligence office, or a cheap boarding house, and there were not wanting many in her own rank of life to hint that she paid herself somehow from the labor of these poor; that she "feathered her nest well." None of the women whom she had helped ever wronged her by a suspicion. Next to God, whom she faithfully tried to teach them to serve, they believed in her. If she had proved a humbug, the faith of many a poor soul in His goodness would have been shaken, for all they knew of the goodness or beauty or pleasure He has sent into the world they knew through this poor woman. There were other women who could preach of Christ by words more effectually than she; some of them, quite as uncultured, had a "gift of prayer," or a real native eloquence which moved their hearers in class meetings or the church. Aunt Hannah, as she was called, never spoke in class or meeting; she was slow and dull of speech anywhere. She often, no doubt, felt her deficiencies bitterly, and wished that she could serve her Master in some great and striking way. It seemed a poor commonplace thing to her, as it may to our readers, to teach girls how to make or wear clothes neatly, or to cook a savory dinner; to watch and labor incessantly day after day, year after year, to wipe out this or that little fault, to strengthen a weak virtue. She would have been glad, no doubt, as we all would, to convert the great masses of vice and uncleanness in the world into purity and goodness, in an hour—to play Divine Providence, in a word. Instead, she had small, coarse work set before her, and did it. Of another woman it was said, "She hath done what she could," when she anointed her Saviour's head with precious ointment.—*N. Y. Tribune.*

Moliere was asked the reason why, in certain countries, the King may assume the crown at 14 years of age, and cannot marry before 18. "It is," answered Moliere, "because it is more difficult to rule a wife than a kingdom."

Bad Literature for the Young.

In our country the conditions of the growth of this bad kiud of literature for boys and girls are to be seen, some of them at least, lying plain upon the surface. There is the rapid increase of the population; the diffusion of the capacity to read among the classes whose circumstances are in most other respects unfavorable to the formation among them of proper standards of taste and good feeling; and there is the fact that the young have of late years been turned out early to earn their living, and left pretty much to their own misguidance. Whether a state of civilization like that of London and New York can exist without "social deposits" of such a kind that these or similar conditions will always he reappearing in some shape, is a question on which opinions will differ. But we believe it is certain that the existence of this vile literature, whether for old or young, is a comparatively recent phenomenon. There appears to have been nothing like it (of course the same thing could not have existed) when the late Dr. Kitto was engaged in those struggles after something to read which he has so admirably recorded; and there seems to have been nothing like it when the Queen came to the throne. At that date there was much more broad indecency in caricatures and in popular literature for adults; but that is a very different matter. Now-a-days, we have flourishing in vile luxnriance whole jungles of literature, chiefly for the yonng, such as Anthony Trollope and James Greenwood have, each in his own way, described iu magaziue articles.

The alarming and dispiriting part of the case is the gradual spread, upwards in what is called the social scale, of this sort of trash. Any observant person may notice low newspapers and low periodicals in houses of a pretension which would seem to point to something a great deal better. Respectable people—people who have influence in vestries and on school boards—may every day be seen spending money on fine dress and furniture, and, while they go regularly to church and maintain all the respectabilities, taking in journals and magaziues one would beforehand suppose to be quite beneath their notice. It is indeed nndeniable that the last 10 years have witnessed a general lowering of the standards in all strictly popular literature. There is more amateur or half-amateur literture, there is more false and vulgar sentiment, even where there is what is called "pure Christian teaching;" and everywhere there is a panderiug to the appetite for luxury and worldly success.

It is, perhaps, in the popular literature of America that we see the least favorable examples of the manner in which recent conditions of living affect literature for "the masses." It is certainly to America we must go to see the most barefaced instances of pandering, and the most ingenious evasions of the higher litera ry responsibility.

Jumping a Sunbeam.

A correspondent of the *Advance* writes: Years ago, while still at home, I went one day to tie up my father's oows. I opened the stable door, and the queen of the yard—old Brindle—started in, but stopped just inside the door, and would go no further. Thiuking it was hecanse the stable was so dark, I urged her, but to no purpose. I kicked, and found two could play at that game, Her co: duct was so unusual that I then began to investigate, and found that a sunbeam came through a crack and reached across the stable just before her, making the little dancing motes plainly visible, and lookiug, for all the world, like a bar newly put up, over which she could scarcely leap, and under which she felt it impossible to crawl. Enjoying her perplexity, now that the cause was plain, I waited, and laughed to see her lift her head (evidently compariug the hight of the snpposed obstruction with some fence over which the mischieveous creature had broken in past days) and then give it up, as was plain by the fact that she began to calculate the chances of crawling nnder, and shook her head at it. Explanation was useless, as it is in sundry like cases among more intelligent animals, and the fun was too good to spoil by coercion.

At length I went round and poured the sliced turnips slowly into the manger. This was too much. Old Brindle evidently made up her mind that she must risk everything for the mess. So, with a sudden leap, she cleared the obstruction, without touching (though she came down just where it would have been,)—a feat which evidently astonished her—and took her place at the manger. She looked as if she could not see any reason for the shout that greeted her. It was serions business to her. And ever since, if I see one delaying to do a plain duty for various reasons which seem real and comfortable to him, but are only sunshine—or moonshine—to any one else, I always think of old Brindle, and endeavor to fiud out what is turnip to him, in order to coax him on to it. But many a man makes as unnecessary and ludicrous a leap in getting clear of imaginary obstructions, as did old Brindle.

Those Jeremiahs who fear that the highest education of women will cause a decline of kitchen lore may feel encouraged by learning that Miss Julia J. Thomas, now Mrs. Irvine, who bore off the prize for Greek at the inter-collegiate contest, is keeping house, and proves as efficient in bread making as though iguorant of the classics.—*N. Y. Independent.*

Young Folks' Column.

Answer to "An Exercise."

The exercise proponnded by our young Indiana correspondent has been answered as follows:

Editors Press:—In answer to your Indiana exercise, I found it very easy to save the Christians hy taking grains of coffee for the Christians and beans for the heathens, and placing them in a circle. After changing their positions the fifth or sixth time, I found that the ninth man would every time he a heathen, if the company was placed as follows—the letters answering respectively for Christians or heathens: CCCCHHHHHCCHCCCHCHHCC HHHCHHCCH. Yours,

James W. Lovelace.

Stockton, Cal., March 12th, 1876.

Since the above was received we have also received correct answers from G. W. Prosser, Miners' ravine, Placer county and Sherman Huyck (aged 11 years), of San Jose.

A Boy that Deserves a Medal.

He was a very small boy, all in tatters, and his clothes were dripping with ice-cold water. In his arms he held a miserable little dog that was shivering in the cold January weather. This is the story he told: "You see, mister, Bill and I were playing by the river and guessing at which chunks of ice would first go over the dam, when this little dog came trotting past. Says Bill to me: 'Let's put this dog on one of the chunks for a passenger, and see how he will act.' So we put him on a real big chunk and pushed him off into the stream. I had a bit of twine in my pocket, which I hitched to a jagged corner of the ice, so that I could hold it. We had lots of fun with the dog as a passenger, and he was terribly frightened, but didn't dare to jump off. I played tow-horse for a while, and then Bill took the string.

"After a little, Bill, who was a bad and cruel boy, let the string slip off, and I know he did it just on purpose to see the dog go over the dam. But I pitched into Bill, and after giving him fits for letting the dog go adrift, plunged into the water myself to rescue the dog; but the water was too cold and too deep, and so I had to give it up and get ashore again. But I couldn't bear to see that dog go over the dam, so I just runned home as fast I could. I didn't sleep much that night, I tell ye, mister. In my dreams I heard that dog crying all night. Well, after breakfast, I just went down to the river and there was the pup still a yelping. The ice had kind of sot during the night, as it was cold, but wasn't yet real hard. I just skinned across that dam on the logs—sakes! but it was slippery, and I tumbled in over my head twiste, and was just able to get that pup off by the scruff of his neck.

"Now, mister, I am going to keep this dog until he is growed up, and just as sure as ever Bill whistles to him, I am going to teach bim to bite Bill, and if he is too small to do it, I ain't too little to lick two boys like Bill. I say, mister, if yon know of any society as gives medals to boys as saves dogs' lives, send 'em to me." If there should exist, we thought, such a thing as a society awarding medals to heroic urchins for saving an animal's life, we feel certain poor ragged George would have been entitled to one of them.—*Perry Chronicle.*

A Wonderful Boy.

The Boonville (Mo.) *Advertiser* speaks of a wonderful and beautiful little boy by the name of James M. Williams, who is residing with his parents in that city, and who has lately given evidences of powers of memory that astonish every one. He is not yet four years old, and ouly learned his letters a few months since. Unlike most persons who possess one faculty far in excess of others, he is perfect in all. His eye bespeaks intelligence, his mind is well matured in everythiug for his age, and in his demeanor he is childlike and winning. Recently a reporter of the *Advertiser* visited him at his home, and with others witnessed his most wonderful answers to questions given him by his father. Sitting on his father's knee, he gave prompt replies to his parent, telling the names of all the planets, their characteristics, their distance from the sun and positions in the heavens. He repeated whole chapters in the Bible, and spoke in a childlike manner, just as though rattling off the veriest commonplace remarks of other children of his age.

The first indication of this marvellous faculty came to his parents in this way: They are religious people, and each morning read from the scriptures before prayer. Snortly after the exercises one morning—several months ago—his mother was astonished to hear him repeatiug, word for word, the lines from the Bible which he had heard read an hour or so before. She called him to her and found that he could recite other portions of the holy book. She commenced teaching him his letters, and in an hour and a half he had learned the whole. He progressed with wonderful rapidity and soon could spell. A physician was consnlted, and they were advised to keep the boy away from hooks and not allow him to study, as his health would not allow it. Since that time he has been read to hy his father, aud now remembers everything he has heard.

Good Health.

Toothache and its Remedy.

Editors Press:—While looking over your valuable paper this morning, my attention was attracted to an article headed, "Bicarbonate of Soda a Toothache Remedy," and, with your permission, I will say a few words through your paper in favor of this useful remedy, not with the intention of claiming anything for your correspondent, hut to say that years of experience has convinced us that Dr. Buckwith's opinion is certainly correct. Having suffered many years with severe attacks of toothache I am happy to throw any light on the subject that I can.

Ahout 15 years ago, while suffering severely from an attack of this kind, after trying everything I could hear of without any good effects, I resolved to try an application of cold water—as the aching was accompanied by a burning sensation—which I did by filling the mouth with cold water. In about one minute the pain was gone; but as soon as the tooth would get warm the pain would commence again. Then remembering that bicarhonate of soda was of a cooling nature, I determined to try it, and as the tooth was a mere shell I filled it with this artiole, which of course came directly in contact with the diseased nerve. The result—as quick as thought the pain was all gone, and as the taste produced was something like that which we get hy mixing different kinds of alkalies and acids together to make summer drinks, I inferred at once that the pain was caused by the acid saliva coming in contact with the nerve of the tooth. I have always used it since, and have recommended it to hundreds of others who have used it with the same results. There are two kinds of toothache—one of which, only, the soda will relieve. The desired application can be determined by taking first cold and then warm water in your mouth; to the one relieved by the cold water apply the soda, as directed; to the one relieved hy the warm water apply oil of cloves, pain killer, camphor or some such hot stimulating remedies.

Contra Costa Co., Cal. A Sufferer.

Expanding the Lungs.—Step out into the purest air you can find; stand perfectly erect, with the head well up and the shoulders back, and then fixing the lips as if you were going to whistle, draw the air, not through the nostrils, but through the lips, into the lungs. When the chest is about half full, gradually raise the arms, keeping them extended, with the palms of the hands down, as you suck in the air, so as to bring them over the head just as the lungs are quite full. Then drop the thumbs inward, and after gently forcing the arms backward and the chest open, reverse the process hy which you draw your breath till the lungs are entirely empty. This process shonld he repeated immediately after bathing. aud, also, several times through the day. It is impossible to describe to one who never tried it, the glorious sense of vigor which follows this exercise. It is the best expectorant in the world. We know a gentleman, the measnre of whose chest had been increased by this means some three or four inches during as many months.—*Home Journal.*

Cure for Diphtheria.—The ravages of diphtheria in Australia have been so extensive within the last few years, that the Goverument offered a large reward for any certain method of cure; and among other responses to this was one by Mr. Greathead, who at first kept his method a secret, but afterwards communicated it freely to the public. It is simply the use of sulphuric acid, of which four drops are diluted in three-fourths of a tumbler of water, to be administered to a grown person, and a smaller dose to children, at intervals not specified. The resnlt is said to be a coagulation of the diphtheritic membrane and its ready removal hy coughing. It is asserted that where the case is thus treated, and has not advanced to a nearly fatal termination, the patient recovered in almost every instance.

Administering Medicine.—When a teaspoonful of any medicine is prescribed by a physician, it should be borne in mind that the qnantity meant is equal in volume to 45 drops of pure water at 60 degrees Fah. It is a good plan to measnre off this amount in water in a small wine-glass, and mark on the latter the exact hight of the fluid. This will give an accurate and convenient standard for future use. Teaspoons vary so much in size that there is a very wide margin of difference in their containing capacity. It is well to remember, also, that four teaspoonfuls equal one tablespoonful or half a fluid ounce. A wineglassful means four tahlespoonfuls, or two fluid ouuces; and a teacupful, as directed by cookery books, indicates four fluid ounces or one gill.

Keeping the Hands Smooth.—A writer in the *American Grocer* says that glycerine is not used in the right way. She asserts that to preserve the smoothness and softness of the hands, keep a small bottle of glycerine near the place where you habitnally wash them, and whenever you have finished washing, and before wiping them, put one or two drops of glycerine on the wet palm and rub the hands thoroughly with it as if it were soap, then dry lightly with a towel. Household work and bad weather will not prevent your skin from being smooth and soft, if this plan of using glycerine is followed.

Domestic Economy.

Rice Croquets.—Bake a qnarter of a pound of best rice in a pint of milk nntil well swelled and dry. While hot heat in the yolks of ten eggs, three ounces of sifted sngar and a little grated lemon peel, or any flavoring preferred. Spread this on a dish to the thickness of half an inch and let it remain until cold. Then put a few finely sifted bread crumbs on your hand; take as much of the rice as will heap a dessert spoon, put it on the crumbs in your hand and roll into the shape of an egg. Beat np an egg, white and yolk, dip the croquet into it, roll it in bread crumbs, put in the wire hasket. Repeat this process until all your rice is used, then fry the croquets in plenty of boiling fat. Clarified drippings answer well for frying these croqnets. Care, however, must he taken that the fat is the right temperature, which may be readily ascertained by plunging a piece of bread into the fat. If the bread browns instantly the fat is ready. Dip in your wire basket containing the croquets, move about gently in the fat, aud when they acquire, as they should do in less than a minnte, a golden color, they are done. Put them on white paper to absorh any fat clinging to them, sift sugar over and serve.

Baked Apple Pudding.—Set a qnart of milk over night, take off the cream in the morning, and heat your milk in a spider to a boiling point. Wet two dessert spoonfuls of corn starch in a little cold milk and stir into it, and continue stirring it till it thickens. Set it off from the fire. Beat together two eggs and a half cup of white sngar; then pour your corn starch into this, stirring it together carefnlly, and add a teaspoonful of salt. Pare and slice thin six large pleasant apples; lay them into your pudding dish, pour the custard over them and bake for an hour, or until the pudding is tender. For sauce, add sngar, nutmeg, aud a little extract to the cream. This is a very economical and delicious pudding.

A Cleansing and Renovating Polish.—Take of olive oil one pound, of rectified oil of amber one pound, spirits of turpentine one pound, oil of lavender one ounce, tincture of alkanet root one half onnce. Saturate a piece of cotton batting with this polish, apply it to the wood, then, with soft and dry cotton rags, rub well and wipe off dry. This will make old furniture in private dwellings, or that which has been shop worn in warerooms, look as well as when first finished. The articles shonld be put into a jar or jug, well mixed, and afterward kept tightly corked. This is a valnable recipe.

Pumpkin Preserves.—A writer who has tried it says to preserve pumpkin take seven pounds of pumpkin, five pounds of sugar, four lemons and two ounces of green ginger root. Cut the pumpkin in slices half an inch thick, in any desired form, square, ronnd or diamond shape, and boil in the syrup till tender, then take up the pieces. Slice the lemon and ginger root very thin and scald them in a little clear water, after which add them to the syrup; boil the latter down until it is clear enough to keep without fermenting and then add the pumpkin to it.

To Clean Garments.—Wet a sponge in warm water and squeeze it out till dry; then sponge one place after another until all the garment has been cleansed. All the dust and soil will be absorbed hy the sponge. But if the garment is very much soiled wash the sponge in clean water several times, squeezing it as dry as possible by wrapping it in a piece of black alpaca. This method of cleansing is more effectual than a hand brush, aud many spots will disappear by the use of pure water.

Renovating Black Kids.—Ink and sweet oil mixed, two parts ink to one part oil, will also make a nice glossy blacking for glove kid hoots. Prepare a bottle of it, and attach a small sponge to the cork, as is done in "liquid blacking." The same varnish touched on very gently to the white tips and seams of worn black kid gloves, will make a pair quite respectable for either traveling or shopping.

To Renovate Black Silk.—Grate three or four large potatoes into water, and strain off the water after letting it come to a boil. Then put an old dark colored kid glove into it, and boil for ten minntes. Sponge over the breadths of the dress with the glove, and when damp enough to iron well, press on the wrong side with a flat iron not too hot, as silk scorches easily.

To Bake Beans.- Prepare them as for stewing, and place them with a large quantity of water in a stone-ware pot in a hot oven. Let the oven cool somewhat after they begin to cook, aud bake them from four to six hours rather slowly. Leave out meat and butter, aud trim with cream andsalt.

Tar Spots.—Butter will remove tar spots. Soap and water will afterward take out the grease stain.

To remove paint splashed npon window panes, use a hot solntion of soda and a soft flannel.

Kerosene aud powdered limo, whiting or wood ashes, will scour tins with the least trouble.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

OUR CLUB TERMS are not exclusive. All Grangers and individual farmers are invited to send us the names of any five or more yearly subscribers at $3 a year each, cash in advance. We ask *all* to help to build up the paper and increase its usefulness, and are willing to make this deduction on account of those who are willing to spend their time for the cause of agricultural intelligence.

THE ORIGINAL ARTICLES in this paper are mostly set in solid type, giving in our columns one-third more reading than is contained in ordinary leaded matter.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, March 25, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—L. L. Treadwell; Agriculture at the Capital; Brown's Undulating End-Shake Shoe, 193. The Week; Diversified Farming; Harvest Hands; The Cattle Sale; A Good Point, 200. Our Reporter Abroad; California and the Centennial; California Squirrel Hawk, 201. Patents and Inventions, 204.

ILLUSTRATIONS.—Brown's Undulating End-Shake Shoe, 193. White Breasted Squirrel Hawk of California, 201.

CORRESPONDENCE.—More About the Eucalyptus and Other Australian Trees; Early Plowing and Late Sowing on Pajaro; New Uses for Ramie: Summer Fallow, Dry Sowing, etc., 194. Farm Figures, 195. Late Planting for Eucalyptus, 204.

THE DAIRY.—Our Dairy Products at the Centennial; The Dairy Association, 195.

THE VINEYARD.—The Napa Viniculturists, 195

PATRONS OF HUSBANDRY.—Yuba City Grange; Earnest Words from a Granger Patrou; Let the Grange Beautify the Lands: A Sister's Home Talk to Patrons; Colusa Grange 196. From the Granges; Election of Officers; In Memoriam, 197.

AGRICULTURAL NOTES from various counties in California and Arizona, 197-204.

HOME CIRCLE.—"Allow for the Crawl."—A Homily (Poetry); Woman on the Farm; Look Out, Young Men; The Value of Small Savings; A Useful but Obscure Life, 198. Bad Literature for the Young; Jumping a Sunbeam, 199.

YOUNG FOLKS' COLUMN.—Answer to "An Exercise;" A Boy that Deserves a Medal; A Wonderful Boy, 199.

GOOD HEALTH.—Toothache and its Remedy; Expanding the Lungs; Cure for Diphtheria; Administering Medicine; Keeping the Hands Smooth, 199.

DOMESTIC ECONOMY.—Rice Croquets; Baked Apple Pudding; A Cleansing and Renovating Polish; Pumpkin Preserves; To Clean Garments; Renovating Black Cloth, 199.

QUERIES AND REPLIES.—Pine Apples Growing; Experience with Chufa; Poland China Hogs; The Large Grape; Leicester Sheep; Preserving Pencil Drawings, 201.

POULTRY YARD.—Black Spanish and Brown Leghorns; Leghorns as Layers; 202.

SHEEP AND WOOL.—Mr. Peters' Experience, 202.

STOCK BREEDERS.—Meaning of "In Line" and "In and In;" To Calculate Periods of Gestation, 202.

USEFUL INFORMATION.—Mending Tin-Ware; The Tinning of Brass or Copper Articles; Superiority of Wood Screws over Nails, 202.

THE HORSE.—To Train a Colt, 206.

NEW ADVERTISEMENTS.

Agricultural Implements, Frank Bros. & Co., S. F.; Mowers and Wagons, Linforth, Kellogg & Co., S. F.; Cattle Sale, Short Horn Breeders' Association of Cal.; Seeds, Augustus B. Taber, Toledo, O.; Flowers, W. A. T. Stratton, Petaluma, Cal.; Oakland Gang Plow, H. N. Dalton, Pacheco, Cal.; Heald's Business College, S. F.

The Week.

The sun is bright, and notes from the interior are joyous. Our printer tells us that we must jubilate very briefly, so we boil down the sweet sap which trickles from our interior exchanges and correspondence, until it sugars off thus: Santa Clara, "unexampled prosperity—only danger of overgrowth;" Butte, "summer will surpass anything known before;" Contra Costa, "much cheat and weeds, but good aggregate yield promised;" Sonoma, "average crop;" San Joaquin, "better promise of permanent prosperity than ever before;" Los Angeles, "most prosperous season for twenty years;" Merced, "larger crop than in any other two seasons;" Monterey, "one-fifth lamb lost, but compensation in rapid growth of survivors;" Alameda, "smiles of farmers indicate prosperity to all;" Napa, "prospect never so flattering" —thus to the end of the column.

Diversified Farming.

A correspondent writing from Los Angeles county suggests that it is time we write another editorial on diversity in farm crops. He and his neighbors are now all after barley as they were after corn last year. Now, there are several kinds of diversified farming. If a great number of the Los Angeles farmers have changed from corn to barley, that in itself would constitute a greater diversity than is generally accredited to the agriculture of this State. The great complaint which is made by writers in favor of diversified crops is that our farmers grow the same crop year after year. Their action is so uniform that they do not even stop to enrich the soil with fertilizers. It is one unending extraction of the fertility of the soil, without a thought of restoration. It is evident that the Los Angeles farmers do not do this. They rotate and diversify, and agree so well that they all strike exactly the same revolution. Even this is hopeful in a certain sense, for the land is maintained and its duration of fertility extended, even if the excess of similar resultant products brings an era of low prices for the farmer's pocket. The change from one crop to another shows that the farmers are awake and making efforts to produce that crop which seems most demanded. This is the secret of successful farming and we are glad to note that our Los Angeles friends are possessed of it. As they pursue the study of the situation and the markets they will guard against overdoing a special crop, as our correspondent fears they are doing.

But we are aware that the point which we are asked to speak about is a diversity of production on the same farm, and not a system of general rotation. Where the land will admit of it, the safest system of farming is that which gives the farmer different products. Let us consider this briefly from several points.

First, a varied yield of farm products is advisable financially. A farmer is a man who has something to sell as well as a man who plows and sows and reaps. He is then, something of a merchant as well as a producer. He needs not a little mercantile wisdom and insight to reap the fullest rewards from his industry. He needs to study the tendency of production and the course of market values, and it he can produce that which sells best every time, he combines the skill of the producer and the merchant. As the wants of consumers are varied, so must the production be; and it can be clearly demonstrated that, unless a man's land has a special natural adaptation for some particular line of cultivation, he can possess himself of the best market chances by having a variety of productions to sell. By this course he is surest of profit from year to year, because his whole yield will not rule low in price at the same time.

Another financial advantage in diversified production lies in the economies it introduces. First, it enables him to supply his own needs for a varied food supply for his family, giving him necessary articles at actual cost. Instead of being forced to draw upon his surplus money to pay profits to the gardener, the butcher and the fruit grower, he provides himself with all these supplies of food, which are within the natural ability of his farm to produce.

Another economy of diversified production is that of time. That man can accomplish most whose labor is constant, whose spirit of strength and industry rises within him before the sun is up and lingers behind its setting. A diversified farm system gives full scope for continuous and healthful industry. With the sole crop growing there is a spurt of toil and then weeks of listless idleness, unproductive and too demoralizing. With a diversified farm there is no chance for lagging. Duties recur one after another. One after another the crops are cared for and the result is an assorted stock of valuable productions, which must find favor on the market, or, if distant from the market, will sustain the farmer and his family in independence and comfort, with but little additional from the store

But there is an advantage in diversifying more lasting and wide reaching than any we have named. It is the result which is secured in the soil. Cropping with changing plants changes the drain upon the fertility of the soil, and grand results are obtained by it. So, too, the different cultivation which different crops needs gives the soil a wholesome diversity of treatment and enables natural forces to act as they are ever on the alert to do. It can hardly be doubted that with the soil, as with the tired laborer, "a change of work is almost as good as a rest."

We have not the space to mention at this time the many ways in which it is profitable to diversify crops. In fact, the matter depends so much upon soil and location that our suggestions would have to be of a very general nature to be of use to our widely scattered readers. The questions involved are for each farmer to study for himself. First he must satisfy himself that his soil and location are fitted for a crop which he thinks of introducing, and then he should post himself as perfectly as possible on the market features of the product. Both of these phases of the question are presented in our columns, from time to time, concerning almost every farm crop. In our correspondence from practical men, we gain hosts of facts of experience of this nature, and in our market column is shown the relative success of different crops in the trade. We would recommend our readers to study our market reports most carefully and critically. Not only should a reader look for the price of a commodity he has to sell, but he should inform himself of the rise and fall of all products. Then he keeps himself informed of the demand for different crops; and in his practice he can put in seed and harvest the product with as sharp confidence in the demand as the wide awake storekeeper has when he lays in a stock of firecrackers for July or wax dolls for Christmas. There's millions in knowing what a market will be, and then filling it. It can be done by careful study and prompt action.

Harvest Hands.

We notice that several of our interior exchanges are noting the probable demand for harvest laborers during the summer months, now quickly coming. It is a matter to which every man who now can look over wide fields of growing grain should give early attention. It is altogether probable that the farmers' requirement for help this year will be much greater than last season. If all wait until the time of actual need before securing hands, some may feel the lack. This can be obviated, in part at least, by making early engagements, and taking steps toward bringing laborers from greater distances, if the accessible supply seems short of the demand.

There is, doubtless, at this time, a large amount of unemployed labor in the State. The hundreds of able-bodied men who have been tramping about our cities for all kinds of odd jobs during the winter, and the gangs of men who have been tramping from place to place in the villages, subsisting upon the bounty of the villager and the ranchman, show that there is a certain amount of available strength which can be drawn into the fields at harvest time. That this supply will be adequate to the demand, in view of the promised wealth of the harvest, we do not believe.

We think we can easily find employment for a few thousand good men from the East during the harvest months. They can expect to receive from $30 to $45 per month and board. We shall probably receive the needed number by the tide of spring immigration. It is a good time for those who are disposed to try California agriculturally to come to us this spring. They can expect to find labor which will not only support them but give them good additional returns during the early months of their residence in the State. This will enable them to keep intact the capital which they bring with them and add a few hundreds to their store. While they are doing this they will be gaining acquaintance with our agricultural conditions, and will be much better prepared to invest wisely for themselves when the summer work is over. In view of these facts, we think our readers can safely advise their friends at the East that the present is a most favorable time for them to come to this State. Men who come bringing skill, and some capital to gain opportunity to exercise it, can safely expect to reap a satisfactory success. Let them come out and go to work earnestly in our harvest fields, and then—profiting by the summer's experience, observation and inquiry—locate upon some of the acres of rich available land, and build up such prosperity as our favoring soil and clime foster and promote. But we can advise none to come penniless, nor must they expect as gentle a lot as befals the farm laborer at the East. They will find hard work and rough work, and none should come unless they can bring the coin to make themselves masters of the situation when the harvest is over.

The Cattle Sale.

We have received a copy of the catalogue of thoroughbred stock to be sold at auction on the fair grounds in Sacramento, April 20th. An examination of the pedigrees shows the animals to be desirable and charged with a weight of pure blood which breeders can trust to reproduce itself. The catalogue contains the pedigrees of 29 bulls and six cows and heifers. In addition to these there will be sold the entire herd of the late Judge G. N. Sweezy, of Marysville, comprising 15 cows and heifers and 10 bulls. There are animals also expected from Jesse D. Carr, of Monterey county, and Berkshire hogs will be sold by W. T. Overhiser and others.

The breeders whose stock is embraced in the animals given with pedigree are Cyrus Jones & Co., of San Jose; W. T. Overhiser, of Stockton; John Brewster, of Galt; Moses Wick, of Oroville; Coleman Younger, of San Jose; Wm. Quinn, of San Jose; J. D. Carr, of Gabilan, Monterey county; M. B. Sturges, of Centerville; and E. Comstock, of Sacramento. These names will be recognized as among the foremost Short Horn breeders in our State. Cattle growers cannot well afford to miss attending the sale. Even to those who do not make purchases, attendance will be worth the expense, because there will be an opportunity to see what points of excellence California bred Short Horns possess. To those who approve the conformation of the animals there cannot be a more favorable chance for selecting favorites.

It is now agreed that for improving native cattle there is no agency so powerful and generally valuable to fill all requirements as a thoroughbred Short Horn sire. The dairyman who selects his sire from a milking strain of Short Horn blood gets a race of heifers which at once show their superiority over the maternal stock. The stock grower who breeds for beef cannot increase his profits better than by crossing with the families of Short Horns which have been bred for years to lay on masses of juicy flesh. There is a power of wealth in breeding, and we look with earnest favor upon all measures which favor the introduction of better blood, and consequently better profit to our herds.

As will be seen by the advertisement which is printed elsewhere, the sale will be held on Thursday, April 20th. We recommend our readers to go early. We doubt not the cattle will be on the ground a day or two before hand. It will be well for those who intend to be present at the sale to go the day before and give all the animals a most careful examination. If all their points are observed closely before hand, bidders will be prepared to talk more quickly and more understandingly when the hammer is in the air.

Our readers will not forget the meeting of stock breeders, which will be held at 304 Davis street (in the rooms of the Produce Exchange), in this city, on Wednesday afternoon, April 5th. All breeders are invited to join the association, and we hope they will do so. Stock improvement can be given a wonderful impetus on this coast by union of action and discussion among all the breeders.

A Good Point.

The Napa *Reporter* makes a good point against the bill introduced by Mr. Hill, for the suppression of ravages by the phylloxera. It will be remembered by our readers that one provision of the bill was to engage Prof. Riley, of Missouri, to come to California and examine the vineyards, etc. The *Reporter* pertinently asks why it is proposed to take the matter out of the hands of Prof. Hilgard, of the State University, who is already in the State employ, and who is both ready and willing, and fully competent, to do the work which is of such vital importance to our viniculturists.

It appears to us also that the bill of Mr. Hill involves an uncalled for expense, simply because we possess already all the requisite talent to accomplish the result. Prof. Riley is a good man and is doing the country much service. When we have trouble which we cannot meet ourselves it will be time enough to send for him or some other man. But the present emergency finds us with Prof. Hilgard already on the ground, fully informed as to the requirements of the task, and where the need to tax the State to import a man who can do no better service?

The Legislature cannot better serve our vine-growers than in making provision to meet the necessary expenses and then charge Prof. Hilgard with the execution of the labor. He asks no extra compensation. As professor of agriculture at the State University, the work is clearly within his field, and he will willingly assume it and energetically discharge it. Our Napa contemporary recommends the appropriation to erect necessary apparatus at the University for manufacturing the sulpho-carbonates which the French have found a successful specific. It might be well to do this, so that the application could be made immediately, and the remedy secured to the farmer at the cost of production.

The main question, as it seems to us, is just here: There has arisen a practical question in agriculture which needs thorough scientific treatment; the State has a University, with competent scientific men especially engaged to do such work. It only remains to bring the two together—to apply the State's own science to its needs. There is another consideration: In view of the magnitude of our vine interest and the gravity of the danger which threatens it, it is plain that the vine-grower should be fully skilled to protect himself. Take the matter then, to the University. Let vine-growers and their sons go there and gain instruction for present needs. Let the sons take full courses of study in the science of chemistry, which has just now laid the agriculturist under new obligations by its triumph over the phylloxera. Let them study the insect and the nature, manufacture and application of remedies. Here is a way in which the agricultural department of the University can be of practical value to the agriculturist. We cannot hope to profit by anything unless we make use of it. We cannot develop the usefulness of our institution if we leave it out of sight and cry for outside aid when a task, which properly belongs to it, arises.

If the Committee on Agriculture will amend Mr. Hill's bill so that we shall have a chance to test our own University and its professor of agriculture, it will do a service not only to the vine-growers but to agriculturists in all lines of the industry. We doubt not that our State Viniculturists' Association is just as ready to co-operate with Prof. Hilgard as with Prof. Riley, and the desirable results can be accomplished wholly on our own ground, by our own men, if the Legislature sees fit to give the necessary aid to the industry.

Queries and Replies.

Pine Apples Growing.

EDITORS PRESS:—In your issue of March 11th, I notice an article from the pen of Mr. Ellis, the University Horticulturist, on the pine apple and its propagation, and he asks: "Now who will be the first man that will show us a lot of pine apples growing in the open air of California?" I can show Mr. Ellis, or any one else, the plants growing nicely in open air. They not only have survived two of our rainy seasons, or one previous to the present one, but are looking well and seem every way in a thrifty condition. They are in a rich sandy loam, where in winter there is occasionally light frost and a little freezing. It is a dwarfish variety, but I do not know the name. I received it from northern Florida. I have experimented with the pine apple for five years, but failed with all varieties except this, but think this will fruit. I expect another shipment of the same variety soon with name.—DANA B. CLARK, Nurseryman, Santa Barbara.

Poland-China Hogs.

EDITORS PRESS:—As there seems to be a continual inquiry in the RURAL for Poland-China hogs, I have finally concluded to write and let all who wish to know where they can get at least one pair of pigs in this State. A year last November a neighbor of mine brought them from Carson City, Nevada, where he obtained them from Mr. G. W. Ferris, who had imported the breed from Illinois. Mr. Burns (my neighbor) paid $30 for the pair, mere pigs. Last year his sow had four pigs, two pair. He sold one pair at five weeks old for $20. The other two were sold to different parties, and they are all in El Dorado county. There are also several half breeds in the neighborhood—six or seven months old—very fine hogs too. I showed the inquiry in the last RURAL to Mr. Burns, who requested me to say to those who wish to purchase, that he will sell the two old ones (now about 18 months old) as soon as the pigs, which he expects now in three or four days, are old enough to wean. The sow, he says, is worth $100, but does not know what price to put upon the boar. He is a monster of his kind, will probably weigh — well, Mr. Burns thinks he will weigh 500 pounds, or between that and 400 pounds. Any one wishing to purchase can learn more particulars by addressing Mr. Thos. Burns, El Dorado, El Dorado County, Cal.—J. B., Missouri Flat, California.

This is properly an announcement for our advertising columns, but as Poland-Chinas seem so scarce in this State, we waive a point. Mr. Henry Eversale, of Vacaville, Solano county, also writes that he has a sow expecting a family in May, and can furnish pigs at that time. Now that we have fairly started the Poland-China trade, we shall expect to see it in our advertising department hereafter.

Preserving Pencil Drawings.

EDITORS PRESS:—Will you please give me some information through your paper about how to preserve lead pencil drawings, so they will not become disfigured so easily in packing them.—[E. W. T., Napa, Cal.

EDITORS PRESS:—For setting lead pencil drawings my mother uses "blue-john;" having kept the milk sweet as long as possible, and skimming it as often as cream will rise. When it is just blinky, she pours it in a broad shallow dish, runs the drawing through it about three times, till every part of the paper is covered; then with a pin suspends it by one corner in some airy place, standing by with a small rag and pure water, wiping off the surplus lead up to the very margin of the picture, as it drains down to the lower corner of the paper, till it ceases to run. It is perhaps not generally known that this plan of setting drawings is a preservation against moth eating, which is common in Texas, and I suppose in other warm climates.—[LULU BROOKS, Mt. Vernon, Franklin county, Texas.

Experience with Chufa.

EDITORS PRESS:—I noticed in your paper of Feb. 26th, an article about the chufa, and I thought I would answer it, as we have been experimenting with the tubers and find them to be very valuable, as food for hogs as well as cows. We planted ours on sandy loam mixed with clay, and had a very good yield. I intend to plant about four acres this year. I had about one acre in last year, and they did very well, although they were not planted until the last of June.—JOHN DE COOPER, El Monte, Los Angeles Co., Cal.

We are glad to receive this item of experience with the new plant. Perhaps some of our querista who have asked for seed could get of Mr. Cooper.

The Larga Grape.

EDITORS PRESS:—Can you or some of your many correspondents give me a description of the Larga grape and vine, and oblige a grape grower and a constant reader of the PRESS?—C. H. MERO, San Bernardino, Cal.

Will some of our grape growers furnish us the desired description?

Leicester Sheep.

EDITORS PRESS:—I have looked through the PRESS for advertisement of Leicester sheep. Can you inform me who has some of that kind, of pure breed?—GEORGE MUDD, Jacinto, Colusa Co., Cal.

Will those who have these sheep for sale take the hint and advertise and write to Mr. Mudd?

PRAISE.—M. Eyre, Jr., of Napa, Secretary of the State Viniculturists' Association, writes as follows: "I must say that of the many hundred articles, etc., on phylloxera I have read—and I have made this my study for some time—yours, on page 185 of PRESS of March 18th, contains the *cream* of the matter in a nutshell. While it advances nothing claiming great originality, it contains *accurately* the latest results, and every word of it is exactly correct. It could not be better collated in a short article. I trust every vine grower will appreciate it."

SANTA BARBARA PRESS.—This able newspaper has passed into the hands of H. G. Otis, whom we welcome to the guild and to the coast. Concerning Mr. Otis, W. W. Hollister, the well-known agriculturist, writes: "I have known Harrison G. Otis long enough to count him a true man, and to give me assurances which justify me in recommending him to your good will."

Our Reporter Abroad.

NUMBER THREE.

From Sacramento to Folsom is a short and pleasant ride by rail through 22 miles of fine wheat and clover land, having the American river all along a few miles to the left, while on the right the valley stretches away towards its unseen limits. Not many striking or even substantial dwellinga or frame buildings are in sight, probably because many of the largest farmers have their residences in the city. Those who have been accustomed to see rich fertile sections of country thickly dotted with handsome and useful buildings miss this feature in the valley landscape, and do not fully realize the wealth of the lands through which they pass. The wheat, both early and late, is looking fairly well all the way to the foothills. After reaching the hill country, it is not so promising except in the most favorable locations.

Folsom

Exhibits many indications of the prosperity which belonged to its early mining days, but what prosperity remains has other, and it is to be hoped, a more lasting foundation. Besides having a good farming and grazing country, the hills are admirably adapted to grape and all fruit growing. The Natoma vineyards are known for the quantity and excellence of their products throughout the country, and peaches, nectarines, figs, etc., are largely cultivated.

Mr. J. L. Knight, just above Mormon island, has about 20,000 vines, largely of White Musoat.

WHITE BREASTED SQUIRREL HAWK OF CALIFORNIA.

He does not make up his own crop, but either rents out his vineyard or sells the grapes to be made into wine or brandy. Mr. K. has good wheat and stock land, and has promising prospects for the ensuing season. His prosperity is indicated by the erection of a new dwelling, to which he is about to move.

The next vineyard to this is that of Mr. Henry Mette, and one look shows that he is a practically successful cultivator. He has about 22,000 vines, a majority of which are the Fiherizagos. The results of his last year's operations were two car loads, 18 tons, of raisins, 2,000 gallons of wine, and about 50 tons of grapes sold to a brandy distillery. His raisins were readily disposed of, one car load in San Francisco, and one shipped to St. Louis. He has an admirably constructed wine cellar, a wine room and a still for making brandy, and is thus prepared to make any disposition of his grapes which, from the state of the markets, may be most profitable in any given season. Everything about this establishment gives evidence of good management, and as a consequence, of prosperity. Substantial buildings and inclosures, good stock and well cultivated lands, give a comfortable and thrifty appearance here that is not seen everywhere.

The Natoma and Duroc vineyards, belonging to Mr. B. N. Bugbey, are next visited, but as the proprietor was not living at the vineyard, no examination was made of this extensive establishment. This gentleman is a veteran grape grower, and the pioneer raisin maker, having probably been the first person who ever made raisins in the United States. He has a large planting of Zinfindel, and has experimented intelligently with many varieties that are now planted largely over the State. Mr. B. could answer satisfactorily the many inquiries that have been made about Eastern varieties of grapes in California.

There are other large vineyards in the vicinity of Folsom and Mormon island, and many smaller. Fruit growing of all kinds occupies a prominent share of attention, and, in the hands of intelligent and experienced growers, is satisfactorily profitable. The Natoma water and mining company have a large planting of grapes a few miles south of Folsom, seen from the cars in passing, which give unmistakable evidences of good care and culture. This company furnishes about all the water for this section for irrigation and all other uses. The experience of those who irrigate their vineyards is similar here to that of grape growers elsewhere; but one new idea (to me) was presented by a practical grower, who is experimenting to test its truth. He says many of his vines rotted off and he found in every instance that they had put out new fibrous roots near the stalk. He thinks irrigation induces this, and that the vine gets to depend too much upon these roots, which do not seek far enough for nutriment. It may be worth while for others who have had vines rot off, to investigate this. It is hardly possible that there should be such a result if there is free underdrainage.

The Dairy Interest.

This country, not immediately about Folsom, but nearer Clarksville, about seven miles off, has another large and very important interest—that of the dairy. Within quite narrow limits there were found 18 dairymen, who are milking an average of 100 cows each. Of course this is not all, as there are many other smaller operators, and it is safe to say that at this time this vicinity is producing 2,000 pounds of butter a day. Towards the 1st of June, when the feed is giving out here, the cows are driven off to the mountains, and the butter making goes on there until about the end of October. This is, of course, expensive and cumbrous, and the dairymen are anxious for the time to come when they can get enough water to ensure them feed all the year in this locality. They have now the prospect of a full supply from a new company, whose water will readily reach them. Situations in abundance are found where alfalfa will grow luxuriantly with irrigation, and they are thus, with water, assured of a plentiful supply of feed, and saved the expense of operating two establishments a hundred miles apart.

The cattle are what are usually called native, having the appearance of low grade Durham and Devon, but attention is now being directed to the intelligent improvement of their herds. Both Ayrshire and Alderney will probably be introduced to increase quantity and improve quality. The average quality, however, is hardly excelled in any portion of the State, and the reputation of some of these butter makers is established in all the large markets. The butter is put up in the usual two pound rolls, and is packed in the flat boxes, made to hold 100 rolls—two hundred pounds. At present they are getting 25 cents a pound, but the average during the year is about 30 cents.

Land in this vicinity can be bought now at from $3 to $5 per acre, but as soon as there is an abundance of water to be had the price will rapidly advance. Upon the whole, the dairy business here, in the hands of these thrifty men, is decidedly profitable.

The Mines.

The mining interests about Folsom do not make much show now, but the evidences of work in former times exist everywhere. The most extensive diggings are those of Mr. Lawson, just out of the town, the yield from which is about $2,000 a month. About $25,000 a month is shipped through Wells, Fargo & Co., and it is estimated that $5,000 more are sent by private hands. A considerable part of this gold is washed out by Chinese. J.

A GOOD SEWING MACHINE.—Among the latest styles of family sewing machines, we look upon the Remington as one of superior merita. It is manufactured at the Remington rifle company's works, at Ilion, N. Y., whose most thorough mechanics have given the machine their best skill in its execution. It does a large amount of work with little power, and is the least noisome of all shuttle machines. It is so simple in principle as to be readily operated without liability to breakage. Handy, cheap and durable, it is a great favorite with those who use it. The Remington is represented by Messrs. Showers, Jewell & Cole, agents for this coast, No. 629 Market street, under the Palace hotel, S. F.

POND LILIES, ETC. — By an advertisement this week W. A. T. Stratton, of Petaluma, gives notice that he proposes to enter the lists with the Eastern florists in supplying the demand for flowering plants. Our home florists should be encouraged.

California and the Centennial.

With all the enthusiasm which has been manifested towards the Centennial exhibition in honor of the nation's birthday, we must confess that very little of it has appeared in California. Although individuals in different parts of the State have proposed to contribute articles of interest, no general movement has been made, nor has any appropriation been made by the State itself. All the other States and Territories have contributed. The general Government has donated a large sum. The State of Nevada, with not half the population of the city of San Francisco, has appropriated $30,000 for Centennial purposes. China, 15,000 miles to the west, and Japan, $200,000; New Zealand, $25,000; the different nations of Europe and Asia, and even Africa and Australia and the islands of the sea, appropriate funds liberally and appoint able representatives as commissioners, but the State of California, with its well earned reputation for wealth and generosity, has for once failed to do its part. The only large general collection of articles showing California products and curiosities which has been arranged, is that forwarded by the Central Pacific railroad company in care of an agent of their own.

There is no building for Californians to meet in, nor is there any official duly authorized to receive articles sent from this State. The Society of California Pioneers have appointed a committee to take the matter in charge and solicit funds to erect a Pacific coast Centennial hall at Philadelphia.

Although these gentlemen have found some difficulty in their work, they are now confident of success. The State of Nevada has appropriated $1,000 towards the object, and Oregon and Washington will assist. The San Francisco delegation of the Legislature have been importuned to push the matter of the appropriation through as rapidly as possible. A bill is already before the House appropriating $25,000 for Centennial purposes, but its passage has been very much delayed. If the bill is not passed very soon it will be too late for California as a State to make any proper showing.

It is a matter of regret to all old Californians that our young but wealthy State should stand a chance of being poorly represented when it has so much to show. The people should respond heartily in accordance with their means, to aid in the display of the products of the State. We urge all who are able to do anything to further the object to do it quickly, so that California will be properly represented at the great gathering of the peoples of the earth.

California Squirrel Hawk.

We give an illustration on this page of the white breasted squirrel hawk of California, (*Buteo Californica*), which is a bird peculiar to this Western region. This friend of the farmer will be recognized by many of our readers who have doubtless watched the effective way which he has of treating the squirrel question. An observing writer gives the following graphic description of the bird's movements:

The flight of the white breasted hawk is firm and protracted, rising to a great hight above the plains in wide circlings, without flapping its wings; at times it seems almost motionless upon the air, looking like a white speck on the blue sky; it is then, at this great hight, observing distinctly the movements of the burrowing squirrels as they gambol and frisk about the plains, unmindful of the keen eye that is watching them from above, far beyond the extent of their own vision; it is then the unsuspecting squirrel ventures some distance from its retreat; this the hawk perceives and fixing its steady eye upon him, draws its wings close to its body, and headlong falls, with the velocity of a meteor, upon its prey, which it soon crushes to death, and either devours it on the spot or bears it off to a neighboring tree, where it picks the bones and skin clean before it is satisfied.

MASSACHUSETTS '49ERS.—We recently received a call from a party of '49ers, formerly of Hampden county, Mass. Out of some thirty companions who came across the plains in '49, only five, viz.: Benj. F. Barker, of San Francisco; Joseph M. Fowler, of Lodi; Capt. J. F. Harding, of Pacheco, (all formerly of Westfield); B. N. Bugbey, of Folsom, (formerly of Springfield), and E. W. Burke, of Inyo county, formerly of Chicopee, Mass.—are now living in California, and but few remain elsewhere to relate the story of their "roughing it through." These few pioneers, (with the exception of Mr. Bugby) after 23 years of separation, have been enjoying several days of re-union in San Francisco. With faces betokening the joyous memories of the past, they have roamed over the vast metropolis which has mostly grown up since their last greeting.

ON FILE.—"Botanical Excursions," J. G. L.; "Agriculture in Chile," C. T. W.; "Cherry Culture," San Jose; "Analysis of Our Fruit Resources." G. C. P.; "Raising Turkeys." M. E. Jr.; "Notes From Maxwell's Creek," W. T. E; "In Memoriam," West Grafton Grange; "Honey Ants," L. H. G.

Poultry Yard.

M. Eyre, Jr., Napa, Cal., Corresponding Editor of this Department.

Black Spanish and Brown Leghorns.

More experience I want from Mr. Eyre, of Napa. I want to know whether he finds Brown Leghorns or Black Spanish hens the better layers.

Will Mr. Eyre tell us why the Black Spanish are out of fashion at present? Is it mere caprice or are they supposed to have any radical defect?—*Mr. Edw. Berwick, in Pacific Rural Press for March 4th, 1876.*

I think that the Brown Leghorns under ordinary circumstances are the better layers. Those who have had Black Spanish for several years and have not selected the breeders for the show pen but for their laying qualities may have stock equal to the Leghorn as egg producers, but in the hands of any one but a careful breeder they are not equal to Leghorns in that respect. They have gone "out of fashion" on account of their liability to disease under ordinary treatment. I have not kept them for two years, as they are, in my opinion, far inferior to the Leghorn as a profitable fowl. The following remarks are selected principally from letters of Mr. Teebay, who has been an enthusiastic breeder of Black Spanish for over 20 years; from Wright's work; from Mr. Rins, a most successful exhibitor, and others' reports; and the result is far more reliable than could be given from my limited experience, or that of any one individual who has bred less extensively: They are, except under treatment hereafter described, difficult to rear; the young are peculiarly liable to colds, roup and a disease called *wasting away*. The effort to breed the white-face is blamed for the deterioration, other qualities having been neglected to secure that point. They were subject to a disease called black rot, but that is now not so frequently heard of. Their flesh is poor: the keel of the breast-bone stands high and they do not look plump when dressed, and they are inferior for table purposes. The principal reason that they have gone out of fashion is on account of the young being so tender and subject to disease; while the Leghorns being directly the reverse and as good layers, have supplemented them. Very many who have bred them have succeeded well with them, have liked the result of crossing them with Brahmas, and many prefer them to Leghorns, but the weight of authority is on the side of the Leghorn, which breed is as hardy as any in existence. The Spanish are as handsome a fowl as any, and layers of a very large white egg.

Mr. Wright says: "High breeding has within the last 20 years perceptibly diminished the good qualities of many strains, but enough remains to justify a very high character as layers, about 130 eggs per annum being an average many birds will attain, if properly fed and managed." Leghorns will exceed this number by nearly 50 per cent. "The flavor of the egg is far interior to Brahma eggs, the yolk being smaller in proportion and rather insipid." The reverse is the case with eggs of the Leghorn. To breed Spanish successfully a method similar to that of Mr. Teebay must be followed. After describing his mode of hatching, he says: "They are put with the hen in boxes about two and a half feet square, having a door with a square of glass in it." The broods are placed 15 to 20 yards apart, in a large orchard. "Each brood is placed near a tree suitable for the chickens to perch in, and in which they *do* begin to perch for the night as soon as they are able to fly up to the branches. After they begin to perch in the trees, all fear of deaths from their 'going light' is over." He goes on to show how those which roost in boxes or houses do not do well, "go light" or waste away, do not fledge well and die from other causes. "Of the broods which roost in boxes," he says, "more than *half the number* (in some seasons *whole broods*) 'go light'—*i. e.*, become thin and pine away without any apparent cause, some even when half grown." This is one of the causes why they have grown out of fashion, to use Mr. Berwick's words. He adds: "They appear to take cold with almost every change of weather or with coming out of warm houses into the cold morning air. A few will have a very slight cough for several days, others will not cough at all; and though they will run after food, they get lighter, until they begin to droop their wings, etc., until at last they die." This is by an enthusiastic breeder of Spanish and is corroborated by Mr. Wright and others. As the Leghorns are hardy under nearly any kind of treatment, they are now preferred and have superseded the Black Spanish. Those who keep Spanish should by all means, especially in our climate, allow them to roost in trees and never confine them in a house. Mr. Martin, another successful breeder, kept his exactly in the same way. If housed it will not do to turn them out at once to the trees, but a change must be made *gradually*. In rearing them the young should be allowed to perch in trees and never housed; thus they may be bred successfully. As they become old they not unfrequently moult out many of their feathers tipped with white, presenting an appearance like some strains of Houdans. This is no evidence of impurity of blood, and their young will be as perfect as when they were black. Occasionally they will moult white, and even young white birds are sometimes produced. Most of the foregoing is from Wright's work, our best authority in poultry matters. After carefully considering, not the experience of one individual here and there, but the result of the testimony of acknowledged breeders of wide reputation, I discarded the Black Spanish as inferior to the Leghorn. As an egg producer I consider the Leghorn by far the best for this coast. They are extremely hardy, great layers, excelled only by the pencilled and spangled Hamburgs, a very delicate food indeed, and they make the best cross with Brahmas or to improve the laying qualities of common fowls. They are a small fowl, but as they feather up very early, the tail and wing feathers appearing when but a few days old, they are very profitable, in the present state of our markets, to sell as broilers when seven or eight weeks old. They are then fully fledged, and it pays well to sell a fowl after only two months' keep at $6 to $8 a dozen. There has been no year since I have been here when they would not bring this during some of the winter months; and one of my neighbors, by waiting until one of our periodical floods sets in, and then sending his young cockerels to market, when localities less favored are cut off, has netted $11 a dozen for his shipments. M. Eyre.

Leghorns as Layers.

Editors Press:—I wish to speak a good word for the Leghorns as winter layers. I have 24 Brown Leghorns and 10 White Leghorns, 34 in all, thoroughbred stock. Since November 1st, 1875, they have given me 1,852 eggs, to the 1st of March, being an average of over 15 eggs a day, rain or shine. To any one acquainted with the weather in this part of the world during those 121 days, I should think they would call that winter laying. I have a pen of six fine Houdans, and with the same care they gave me in the same period only 30 eggs, or five eggs a piece during 121 days. Why this difference in fowls?

Geo. W. T. Carter.

Point of Timber, Cal., March 1st, 1876.

Sheep and Wool.

Mr. Peters' Experience.

According to the report of Hon. Thomas P. Jones, the Georgia commissioner of agriculture, Mr. Richard Peters is one of the best informed and experienced sheep husbandmen of the state. Mr. Peters has tested the Spanish Merino, French Merino, Southdown, Oxfordshiredown, Leicester, Asiatic Broadtail or Tunisian, Improved Kentucky, Cotswold and native sheep. Of these, the Spanish Merino and natives proved most profitable, the other pure breeds proving unhealthy with him. He has tested crosses between the Southdown and native, Cotswold and native, and Spanish Merino and native. The crosses between the Spanish Merino and native, and the Cotswold and native, have proved profitable. Of these two crosses he, in common with nearly every other Georgia correspondent, gives the decided preference to the cross of the Spanish Merino and native. Mr. Peters' experience and experiments extending through 27 years, are of great value; and while they must have been expensive to him, they will save others the expense and time of ascertaining, by experiment, what he has already done for them. For general purposes, for wool and mutton, he recommends, most decidedly, the cross from native ewes and Spanish Merino rams, as the product of this cross showed marked improvement, having constitution, fattening properties, thriftiness, and a compact close fleece. Where the pasturage is good and more size of carcass is desired, a Cotswold ram may then be used to advantage, with one-half or three-fourths-blood Merino ewes. A first cross between the Cotswold and native is seldom successful. The pure bred Cotswolds begin to decline after the first season, and their progeny seldom do well unless the pasturage is extra good and in small flocks, with constant care and attention. While he raises only 70 lambs to the hundred ewes of the pure Merinos, he raises a lamb for every ewe of the cross-bred native and Merinos. During mild winters in Gordon county, his sheep require feeding only 30 days; in cold, wet winters, sheep must be fed twice that length of time.

Stock Breeders.

Meaning of "In Line" and "In and In."

A stock breeder writes to the *Live Stock Record* in explanation of two phrases which are common in stock parlance, but which are not always definitely understood: In and in breeding means coupling sire with his get—or full, or even half brother and sister, together. Breeding in line means keeping one and the same strain of blood predominating in the male and female which are coupled together, though in one or the other it may be decidedly in a minority, while in the other it is sufficiently predominating to give, when re-enforced by the minority, a controlling influence in fixing the type and style of the produce. And now, after making these explanations, I will make the assertion that there is no other way whereby Short Horns can be bred up to the highest type of perfection and excellence, or can be kept up to this type after they are bred up to it, except by judicious in and in breeding and by keeping in line. In fact, just here is the real science and skill of Short Horn breeding displayed; for the converse of this proposition is just as true—there is no way whereby a herd can be more rapidly bred down than by injudicious in and in breeding. It is bad enough to use an inferior sire the first time, but it is next to total destruction to use him upon his get, and thus not only magnify his faults, but render them so fixed in the product that it will require several crosses of judicious breeding to eradicate the fault, and many more to so overwhelm the bad blood thus inserted as to render it entirely incapable of doing harm in some after cross.

But this idea can be better illustrated by the use of fractions, and I may add not only compound fractions, but the idea very soon runs into complex fractions. For example, we will represent the bull by 3-4, plus 1-8, plus 1-16, plus 1-16, equal 1; while the cow, more scattering bred, can be represented by 1-3, plus 1-3, plus 1-12, plus 1-12, plus 1-12, plus 1-12, equal 1.

The Practical Effects.

Now, it is generally estimated that the dam and sire exert each an equal influence in the formation, type and character of the product; but in practical results it is found that while the dam and sire together is the source from which the type and formation of the product is derived, yet it is very seldom that each furnishes exactly half in the product, but instead, they furnish in proportion to the predominating fractions of blood contained in the two. For example, say, in the above, one of the thirds in the blood of the cow is identical with the three-fourths in the blood of the bull, then in the union, these two, being identical, assume their proportionately overpowering influence in making up the form, style, etc., of the produce; and if all these minor fractions in both dam and sire are each alien to the other, or comparatively so, they are only the more overwhelmed and controlled by this majority. But suppose that the other third in the blood of the cow is identical with the eighth in the blood of the bull, then the union of this third and eighth, though still a minority, will be sufficiently potent to exert a perceptible modifying influence.

Thus we see at once where rests the science of Short Horn breeding; and we are forced to realize the fact that this science cannot be learned from books and papers, because it cannot be put into them, and this also explains what Mr. Bates meant when he said in his blunt English way that "Short horn breeders were born and not made," and again, "you can find 100 men to make Premiers where you find one fit to make a Short Horn breeder." (Statesmen can be made principally by education or book learning.) We see, too, the great utility of a bull intensely in-bred, of a choice strain, and of high type; and we are now enabled to render an intelligent meaning for prepotency—a word newly coined, and yet undefined in the dictionary—made expressly to order for Short Horn parlance, as well as to account for the fabulous prices paid for Duke bulls, while other scattering or cross-bred bulls of extra fine form and style sell at prices comparatively insignificant.

To Calculate Periods of Gestation.

The following table, compiled by the *Agricultural Journal*, is worthy of preservation for ready reference. It shows the time at which the average gestation of domestic animals expires, dating from the first day of each month in the year:

Time.	Cow, 283 days.	
January	1 October	10
February	1 November	10
March	1 December	7
April	1 January	7
May	1 February	6
June	1 March	10
July	1 April	9
August	1 May	10
September	1 June	10
October	1 July	10
November	1 August	10
December	1 September	10
Time.	**Sheep and Goat, 150 days.**	
January	1 May	31
February	1 July	1
March	1 July	29
April	1 August	29
May	1 September	28
June	1 October	29
July	1 November	28
August	1 December	29
September	1 January	29
October	1 February	28
November	1 March	31
December	1 April	30
Time.	**Sow, 113 days.**	
January	1 April	23
February	1 May	24
March	1 June	21
April	1 July	22
May	1 August	21
June	1 September	21
July	1 October	21
August	1 November	21
September	1 December	22
October	1 January	22
November	1 February	21
December	1 March	23

Wear and Tear of Railroad Trains.—It is estimated that every time a train of cars of the average length stops, it costs in wear and tear of material and loss of power, fully 75 cents. This is what makes a conductor always look so cheerful when he hauls up at a flag station, in the middle of a snow storm, to take on a string of onions and a man with a dead-head pass.

An invention has just been patented by which the gas from coal stoves may be utilized for lighting the various apartments of a house.

Useful Information.

Mending Tin-Ware.

Faith Rochester, in the *Agriculturist*, describes a method of soldering which we have long used, and can recommend it to all our readers. It is essentially as follows:—Get an ounce of muriatic acid, put it into an old tea-cup or bowl, and throw in a few small pieces of zinc, such as you can pick up at any tinner's. After it has ceased to effervesce, turn into a bottle and use a small stick to apply the liquid to the tin. Scrape the tin clean and bright around the place to be mended, rub some of the liquid on with the stick, lay on a piece of solder, and hold it over a lighted candle till it melts, and the job is done.

We use a small soldering iron, and much prefer it to the candle plan. A soldering iron can be had for 25 cents that will answer every purpose; 10 cents' worth of solder will last a year in an ordinary family, and the muriatic acid will not cost any more. What a tinner or traveling tinker would charge for a single job of mending will buy a complete outfit, and then you are done with the annoyance of leaking vessels, or being compelled to work without them, at a great disadvantage. With farmers who live some distance from town, the soldering outfit is one of the greatest conveniences—with us it is indispensable. We keep the iron, solder and fluid (the latter well corked except when in use) in a box by themselves, on a shelf out of the reach of children. The muriatic acid is a very powerful corrosive agent, and must be handled with extreme care. Children must not be permitted to get hold of it. Several years ago we bought a bottle of soldering fluid of a man who was traveling around selling it—at 50 cents per bottle. Not long afterwards we got hold of the above recipe for making precisely the same thing—at a cost of 10 cents instead of 50.

The Tinning of Brass or Copper Articles.—Nearly all the known recipes for plating articles with tin are attended with the inconvenience of not giving the proportions of the substances to be employed for this operation. If, as is commonly done, very concentrated solutions are employed, tinning is not produced. If they are too diluted, the tinning is slight. Numerous experiments have proved that the following formula produces excellent results: Dissolve 10 grammes (about 6½ dwts.) of tartaric acid in a liter (about 1¾ pint) of very soft distilled water; boil this solution, plunge in it the articles to be tinned, and add 10 grammes (about 6½ dwts.) of fine granulated zinc. This granulated zinc may be easily prepared by shaking fused zinc in a box coated with chalk. Then care must be taken to turn the articles to be tinned several times, and replace the water which evaporates. At the expiration of a short time the tinning commences, and the articles in the bath must be continually turned over till the required degree of tinning has been obtained.—*Le Technologiste.*

Superiority of Wood Screws Over Nails.—Most mechanics who work in wood do not appear to understand the eminent superiority of wood screws over brads and nails. In many places one screw is worth three or four nails. When one is securing cleats to batten doors or cleats to a wagon-box, nails are very unsuitable when compared with the efficiency of gimlet-pointed screws. Screws will hold two pieces of wood more rigidly than nails; and if the timber should shrink a trifle the screws can be turned up tight; whereas it is difficult, in most instances, to tighten up loose work with nails in all places where there is an unusual strain on the parts to be held together.

Sales of Farming Lands.

The "Rural Press" Promotes a Sale.

We are glad to learn that Mrs. Whittock, attracted by a letter of Elder Webb, in the Rural Press, giving an account of our temperance colony, has bought land here, and next month will move to Lompoc with her family. She is Vice Templar of Tehachipa lodge of Good Templars. All such good and stirring people may feel sure of a cordial welcome here.—*Lompoc Record.*

Marin.

Sales.—Robert Bailey to Wm. D. Freeman, 263 85-100 acres in Tomales, $5,000; Charles E. Colburn to J. H. Boswell, 174 acres in Two Rock valley and Sonoma county, $8,000.

Sonoma.

Sales.—J. L. Sewell and wife to W. J. Vaughan, 75 acres of Sotoyome rancho, $3,500. John Soronson and George Robertson to James Vaughan and John McAllister, the north half of the northeast fourth of section 10, and the west half of the northwest fourth of section 11, township 8, range 13, $1,700. W. A. Farish and wife to Chester H. Warner, 250 acres, being all the unsold inclosed land known as the Farish place, $10,000. James M. Palmer to Albert Pharris, the northeasterly portions of lot 15, Petaluma rancho, 100 acres and right of way, $3,300. Francis Benson to Wm. Arfston, eight acres of land adjoining Samuel Hill's land in Analy township, $400.

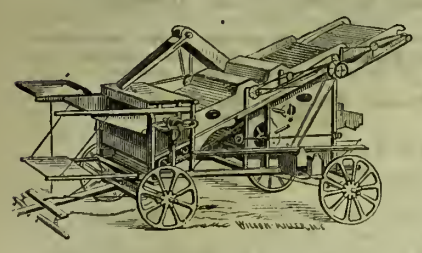
Napa.

Sales.—John Cyrus to L. Hopkins, a part of the Carne Humana rancho, containing 20 77-100 acres, more or less; consideration, $2,077.

C. Hartson *et al* to M. Shiveley, four parcels of land situated in Napa county, containing 249 acres, more or less; consideration, $10,000.

Treadwell's Patent

END-SHAKE THRESHER.

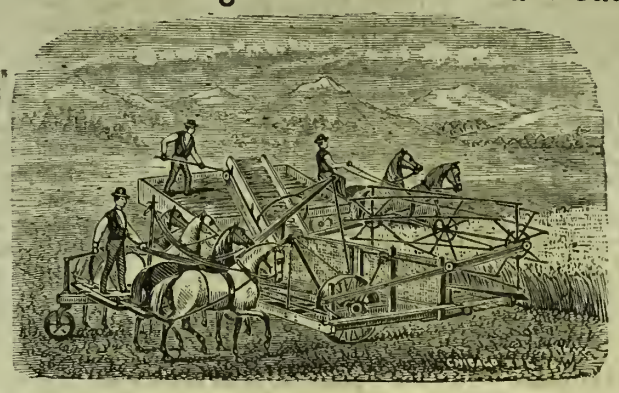


MADE BY RUSSELL.

We have 24, 30, 33, 36, and 40 inch machines, made this yesr, all with Laufenburg's patents, and the celebrated End-Shake Shoes—the greatest improvement yet made in Sepsrators. Send for circulars and prices.

Treadwell's Single-Gear California Header.

High Iron Wheels with Adjustable Spokes.

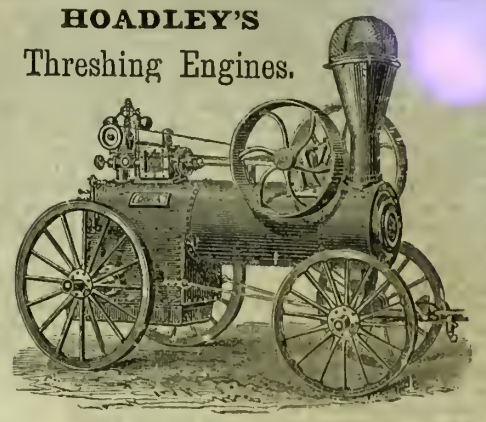


Patent Adjustable Reel and Frame Brace.

No other Header has these Improvements.

☞ Any farmer buying $300 of worth machines or implements of us, will be paid his fare to San Francisco and back, if not over 200 mi es. He can thus come and see for himself, without any expense. Send for our prices before ordering any machines.

HOADLEY'S Threshing Engines.



REDUCED PRICES.

9 Horse Power, new style, complete						$1,200
12	"	"	"	"	"	1,450
15	"	"	"	"	"	1,650
15	"	"	Patent Straw Burning Engine			1,700

TREADWELL & CO., - - - Old Stand, Market, head of Front Street, - - - San Francisco.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS. Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown; Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS. Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Lands and Homes for Sale.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY	Nord	J. REGENSBURGER	S. F.
J. VOLLMAR	S. F.	A. W. THOMPSON	Petaluma
J. D. BLANCHAR	Napa	F. A. KIMBALL	San Diego
C. MITCHELL GRANT		I. G. GARDNER	S. F.
G. P. KELLOGG	Salinas.		

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 40 California Street, S. F

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
Dorado, El Dorado Co., Cal.

CANDLES.

MITCHELL'S

New York Candles

Full Weight and 14 ounce.

Will be found on comparison to be

Unequalled in Quality.

14 <GMG> OZ.

STEARIC ACID CANDLES

GEO. M. GRANT & CO.

PHILADELPHIA.

FOR SALE BY ALL THE LEADING JOBBERS.

Geo. M. Grant & Co., Agents. San Francisco.

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

Napa Valley, near Napa City,

240 Acres of Land For Sale.

The whole or one undivided half interest, at thirty-two dollars per acre. Fenced in five fields. Living water in every field. Orchard and Vineyard in bearing of choice varieties. Buildings good. Terms easy. A great bargain.

STERLING & THOMPSON,
Napa City, Cal.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Ramhouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞ NEW MILCH DURHAM COWS FOR SALE.

FLORENCE SEWING MACHINES.

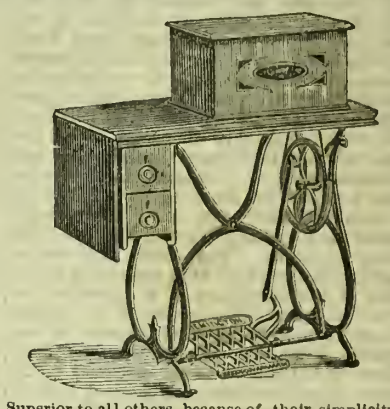
2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,
19 New Montgomery Street, S. F.
☞ Grand Hotel Building.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisc

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel. S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't		I. G. GARDNER, V. Pres't	
G. P. KELLOGG, Treasurer		A. W. THOMPSON	Att'y
I. C. STEELE	San Mateo	CHAS. LAIRD	Salinas
A. WOLF	Stockton	A. D. LOGAN	Colusa
W. H. BAXTER	S. F	G. W. COLBY	Butte Co
J. C. MERRYFIELD	Dixon	C. J. CRESSEY	Oakland
A. B. NALLY	Santa Rosa	E. W. STEELE, S. L. Obispo	

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$3,026,378.00
TOTAL PREMIUMS	63,306 40
LOSSES PAID	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFIEFER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

WM. ERKSON ..... PRESIDENT

H. E. HILLS ..... MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

THE ALDEN FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

(Continued from Page 197.)

his work in growing corn. He can find a local market for all grown, or feed it on his own land and market it in beef, cattle or hogs, which can always be sold for cash. A year ago Geo. Williams near Windsor fed a lot of stock, realized good money on his investment and made a market of all the forage grown in that section. If this excessively wet season leads others in the same direction we will hear no more about purchasing beef cattle across the Sierra to supply the local demand in the richest agricultural county in California.

STANISLAUS.

BARLEY.—*News*, Mar. 17: Mr. H. S. Matteson exhibited at this office, last week, a sample of barley plucked from his field near this place, that was already in bloom, much in advance of the remainder of the field. The chaff or husks covering the kernel of the grain was of a reddish tinge, as were also the joints of the main stalk. Mr. Matteson expects to watch the grain with the view of seeing if it will develop into an improved species.

BARLEY HEADING.—James Davison, living a few miles from Modesto, has a barley field of 100 acres which is already headed out, the grain being 18 or 20 inches high, with a strong stalk, and giving evidence of being ready for harvest by May 1st.

SUTTER.

STARVING HORSES SHOT.—*Banner*, Mar. 16: Great complaint has reached us from our farmer friends in different sections of the county, of the annoyance from loose stock allowed to range at will over the plains in search of a scanty subsistance which the short grass at this season of the year affords. Since such scanty fare as the tules afforded has been cut off by high water, this migratory stock has invaded the highlands under cultivation, and so ravenous have they become, in many instances a four board fence is no obstacle to their cravings, and many have thus sought intrusion upon growing crops to appease their gnawing appetites. The stock thus set at large, in most cases is of little value, and in the absence of the provisions of a no-fence law become an insufferable nuisance to farmers who have given their time and attention to the cultivation of the soil. On Saturday morning last there were found the dead carcasses of 22 of these poor, miserable, half-starved equine specimens in the space of about a mile between the ranches of Hugh Jones and Chris. Schmidt, lying dead along the highway on the Nicolaus road; an examination showed they had been shot. They had evidently been intruding, and those persons annoyed took this remedy of abating the nuisance. We understand that some two weeks ago 19 were slaughtered in the same mysterious manner in the vicinity of the Gather schoolhouse. It is said these roving predatory bands are driven into this county from the adjacent counties of Yolo, Colusa and Butte, where the provisions of the no fence law are operative. Sutter county has no such provisions as yet, and the general trespass law is inoperative, because in most instances the estray will not bring at public auction sufficient to cover the expense of such procedure.

TULARE.

FOR THE CENTENNIAL.—*Times*, Mar. 18: E. Jacob forwarded to the Centennial commissioner samples of grain, which had been taken up by the roots prior to the last harvest, and had the same neatly cased, the measurement of said grain being from six to eight feet in hight. These samples were received by the commissioner, and despatched with the first shipment for Philadelphia; thus showing that our county has one citizen in it who gave attention to this matter early in 1876. Mr. J. deserves the thanks of the people for this timely precaution, and it is to be hoped that his zeal will not lose in securing other samples worthy of exhibition. The following letter is the answer, which explains itself:

SAN FRANCISCO, March 14, 1876.

E. JACOB, Esq.:—We have to-day received two samples of grain from you for the Centennial exhibition at Philadelphia. The samples are just in time for our first shipment. Please accept our thanks for the donation; and let us hope to receive in due time a worthy representation from your district of the crops of 1876.

Yours truly, J. R. SCUPHAM, Assistant Engineer.

TUOLUMNE.

DITCH SOLD.—*Independent*, Mar. 18: The Tuolumne hydraulic mining company, have disposed of all their ditch property to the Tuolumne County water company, including the reservoirs, hydraulic and the ditch formerly known as the Street or Phœnix water company ditch. The company will go on and repair the same, and give a sufficient supply of water in all parts of the county, where the ditch runs, for mining purposes, at the usual rates. Farmers will do well to plant alfalfa, and instead of allowing so much hay to be imported from below, supply the market themselves.

YOLO.

DAMAGED BY WATER.—*Mail*, Mar. 16: Our farmers living on the tillable lands bordering the Sacramento river are occasionally disturbed by the overflows by high waters, while during the seasons of less rain they never fail to secure good crops. Dry seasons do not injure them. The winter of 1871-2, when the railroads were swept away, they suffered considerably from overflow, and this winter they have been visited by untold disasters. On the upper Sacramento in Yolo, Sutter and Colusa counties the water has held high carnival. Early in the winter the water broke the levee on the Sutter county side, washing away about 40 acres of plowed ground and inundating a large portion of the ranch belonging to Wash Hiatt. We made a note of this at the time. J. P. Bullock, who has a ranch on the Yolo side in the vicinity of Mr. Hiatt's ranch, went up from Woodland on Thursday and returned on Friday. He represents matters in a bad condition. He says 600 acres of his wheat is under water, and if the river continues rising it will all be submerged, but if it falls he will make bread. This is too bad. In 1871-2 the water overflowed his ranch, by which he lost 60 dairy cows and about 140 other cattle—making in all about 200 head. His farm is one of the best within the limits of reclamation district 108, and is not so subject to overflow as most of the land in that district. As these overflows do not occur but once in every five or seven years, we presume these farmers can stand it, as we are informed that they secure excellent crops in all dry seasons, and the land being immensely rich they value it very highly.

Arizona.

AGRICULTURAL LANDS.—Yuma *Sentinel*: Theodore F. White, Deputy U. S. Surveyor in Arizona, communicates some interesting notes of his recent work in the southeastern part of the Territory. The surveys on the Upper Gila were closed up to the north and south line of the White Mountain Indian reservation, which crosses the Gila at Old Camp Goodwin. This, with the surveys of last year, opens up to settlement one of the finest if not the best agricultural sections in Arizona, which extends from Old Camp Goodwin up the Gila for forty miles, and varies in width from two to six miles of rich bottom land. With an intelligent use of it, there is an abundance of water in the river to irrigate the whole of the large area. This is generally known as the "Pueblo Viejo" country and a large number of settlers have been coming in to take up ranches along the river, but there is still room for many more. One of the settlements, called Safford, has a regularly laid-out village, with store and post office, and was about getting a school started. The climate of this section is very agreeable, and so far healthy, settlers say. In the vicinity of the bottom lands, in the foothills north and south of the river, there is much more grazing land, so that the settler can not only cultivate his farm, but can have his stock running out, bringing him in a large increase. Surveys were extended over the valley in front of Camp Grant from the head of Arivaipa, on the north, including Eureka Springs, to a little beyond Steel's station at Point of Mountain on the south, covering a large area of excellent grazing lands. In this valley is situated H. C. Hooker's famed stock ranch, and the highly nutritive quality of grasses here is attested by the fatness of the cattle ranging over the plains and the foothills. A resurvey was made of Pima and Maricopa Indian reservation. It is 25 miles long and four miles wide, and contains 64,000 acres. It extends on both sides of the Gila, from a short distance west of the Old Blackwater station on the east end, to within about two miles of Maricopa wells on the west. It contains much more good land than is utilized by the Indians, but it is not too large; and it would surprise any one who has not before been amongst them, to see the amount of work those Indians do—the ditches they have dug, the fences they build, and the amount of land they cultivate. The Pimas have been acquiring a bad name from their pilfering and insolence to travelers passing through their reservation; but if one goes around amongst them, he will acquire a very different opinion of them from what he gains from the reports he hears, which are afterwards exaggerated and sometimes malicious. There is considerable good land outside of this reservation along the river on either end. This has all been sectionized and will soon be open to homestead and pre-emption.

Tea—Its Culture in California.

A writer in the *Chronicle*, who has traveled extensively, says: The tea plant grows better in California than in China, but to the aqueous infusion it yields no theine, which is the esteemed element. The tea plant grows well in California. We have seen a million of them, in full and luxuriant growth, among the foothills between Georgetown and Placerville. We tasted the infusion from its leaves, served Japan fashion, which differs materially from Chinese methods. Instead of iron plates, heat is applied to the leaf from Japan, through a porous paper, expressly made, so that there is no burning nor overheating. We have taken tea which came from Assam and also from the vast tea gardens of the snowy Himalayas; and between teas of China and Japan there is a marked difference. The teas of India are too rank; they are only used to give pronounced flavor to the teas of China, which are growing year by year more insipid. We are not surprised to find in this first tea of California quite a difference from all others. It was not rank but delicate; and considering that it was rudely prepared and fired through Japan tea paper in haste for our industrial fair, we judged that tea culture may be a success in California when it can be economically aided by machine prepsration. The tea plants of El Dorado were all destroyed by a casualty that is avoidable in the future. The experiment otherwise proved that with irrigation tea will grow first rate in our foothills, and all the better where snow covers the brush for 60 days.

Late Planting for Eucalyptus.

EDITORS PRESS:—Our heavy gum tree planters in this county are just preparing for work, and as there are very many of your readers who, no doubt, consider it too late in the season to plant eucalyptus, our method of planting and our attending success may yet prove an incentive to immediate effort. Contrary to all fixed rules in horticulture, our late planting is the most successful, and so popular is the fact that but only a very small percentage of our season's planting has been done. In the light sandy soils westward, as well as the alluvial soils in the north, the fact is now established that to plow well, pulverizing the ground thoroughly, and then plant deeply, we attain a growth of 10 to 15 feet the first season, from plants two to six inches high. Says one of our heaviest planters—"My late planted trees are double the size of those planted in February or March, and, though the frost may not affect them growing in your nursery, yet string them over hills, isolated and alone, and the cold weather seems to debilitate and stunt them." This gentleman planted two years ago as late as April 27th, and last year April 20th, with the best of success. He prefers trees not larger than six inches, grown in open ground. As a fact, open ground grown trees are preferable, except in heavy clay or adobe soils. In open ground a more natural growth is obtained, and a healthier and more vigorous tree is the result. One great

Incentive to Late Planting

Is, the ground is mellowed, the weeds are killed, and after the trees are set no further work is needed, excepting hauling the soil up around the trees after the rains are past. Deep planting advocates say, if we plant late we plant deep, so that the roots are down in a soil sufficiently retentive of moisture; that the roots are fixed, and work off before the surface becomes dry. By planting early we are at double the labor to kill weeds, replowing and replanting. The average growth obtained in this county may be safely set down at 10 feet; a showing as favorable as any one could reasonably ask. And there are very many yet who can meet with the same success in growth elsewhere in our State. In planting blue gums the tree should be firmly fixed in the soil by pressing the dirt around the roots, leaving the surface light and mellow.

W. A. T. STRATTON.

Petaluma, Cal.

General News Items.

COUNTERFEIT trade dollars are in circulation.

THE training ship *Jamestown* will be ready to receive students in about a week.

KEYSER, one of the Tweed ring in New York, has been taken to the lunatic asylum.

ENGLISH mechanics are moving in ways to be handsomely represented at the Centennial.

THE President has nominated John M. Coghlan, of California, as Chief Justice of Utah.

GEN. SCHENCK declines to be interviewed in connection with the Emma mine, but intimates that he will vindicate his own conduct.

STEPS are being taken by the Board of Supervisors of this city, to call a public meeting and send a deputation to Congress on the Chinese immigration question.

PIPER, by authority of the Committee on Commerce, has reported for passage his bill to relinquish the Marine hospital property in San Francisco for use as a Sailors' Home.

THE announcement of the decision of the Supreme Court of the United States declaring the laws of California in regard to Chinese emigration null and void has produced a profound sensation in this community.

BROOM MAKERS.—Our recent small advertisement, requesting broom makers wishing employment to address this office, has given striking demonstration of the value of advertising in the RURAL PRESS. From the numerous letters received we are quite sure that Mr. Thos. McCowen, of Ukiah, who wanted help, has now all the broom makers he wants. Parties can write to him direct hereafter.

CENTENNIAL EGGS.—Nathaniel Jones, of Lafayette, Contra Costa county, has a hen's egg eight and one-eighth by six and five-eighth inches in size, laid by a Buff Cochin. Who can record a better specimen for our Centennial egg cabinet?

STOCK.—For the encouragement of agriculture and stock raising in Los Angeles, San Bernardino and San Diego counties, the Southern California agricultural bureau has been organized on a basis of $20,000 capital, at $25 a share.

BOUND VOLUMES of the PACIFIC RURAL PRESS, from Volume One, are for sale at this office: price $5 per volume for single volumes; unbound $3. There are two volumes per year.

CHOICE VOLUMES.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.

IN remitting cash to this office, do not send us checks on interior banks, as we generally have to return them by express for collection.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington D.C., Mar. 21st, 1876.

FOR WEEK ENDING MARCH 7TH, 1876.

CLEANSING COMPOUNDS.—Margaret N. Cross, S. F., Cal.

MACHINE FOR STONING FRUIT.—Benjamin A. Lillie, Portland, Ogn.

BLAST FURNACE.—John H. Rawlings and Lambert Irelan, Watsonville, Cal.

REMEDIES FOR DISEASES OF THROAT AND LUNGS. Ellen Rohrer, Monmouth, Ogn.

TWIN STAIRS, ELEVATORS AND LIGHT SHAFTS.—Samuel Gray, S. F., Cal.

TRADEMARK.

SOAP.—Rock Soap Company, S. F., Cal.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.

DEWEY & Co., Publishers.

UNKNOWN.—We have lately received cash at this office without due explanation, as follows: From Carson, Nev., $4, by express; from Calistoga, $4, by express. The senders will please give full address, date of sending, etc. DEWEY & CO.

A HOUSEKEEPER who has had ample experience and has just closed an engagement of over 18 months in care of a house, wishes a situation in the country. Has lived on a ranch and is confident of giving good satisfaction. Good reference given. Address M. G. N., 173 Minna street, San Francisco.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

WILL W. B. Peck please send his address to Dewey & Co., 224 Sansome street, S. F., and oblige?

McCormick's Mowers and Reapers.

Everybody knows that McCormick's Reapers and Mowers have a world-wide reputation. McCormick's inventions on these machines have been the most important ever patented in this or any other country. Selling thousands of them in the older States, in the face of all kinds of opposition, the inventors and makers (who have an immense factory,) have not hitherto pushed the machines on this Western shore, as they now intend to. Farmers can depend upon every machine and all its parts when sent out from the factory of this old established firm.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

SEEDS

GROWN AND IMPORTED BY

AUGUSTUS B. TABER, Toledo, Ohio.

Send for a Price-list.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 22, 1876.

The bright sunlight gives the city a busier air. The streets are filled and business houses seem again of some interest to the community. Already there is a noteble increase in the receipts of Domestic Produce. Although there is still dullness in some trades, there is a more cheerful tone and brighter expectations.

Tbe week in Wheat hes been marked by a sherp advance in cable rates from Liverpool and in our local markets. The transactions under the improved prices are not yet large, hut holders are firm and buyers manifest a greeter interest.

The course of the Liverpool quotetions for Wheat to the Prodnce Exchange during the days of last week has been as recorded fn the followfng table:

Range of Cable Prices of Wheat.

	CAL. AVERAGE	CLUB.
Thursday	9s 11d@10s —	10s 3d@10s 8d
Friday	10s 1d@10s 5d	10s 4d@10s 10d
Saturday	10s 1d@10s 5d	10s 4d@10s 10d
Monday	10s 1d@10s 5d	10s 4d@10s 10d
Tuesday	10s 2d@10s 6d	10s 6d@11s —
Wednesday	10s 2d@10s 6d	10s 6d@11s —

To-day's cable quotations to the Produce Exchange compare with same dete in former years as follows:

	Average.		Club.
1874	11s 10d@12s	1d	12s —@12s 6d
1875	8s 11d@ 9s	5d	9s 4d@ 9s 10d
1876	10s 2d@10s	6d	10s 6d@11s —

It will be noticed that the cable advance is considerable. The Eastern Wbeat markets have answered the improvement hy an advance of 5c per bushel, and there has been a general awakening from the depression which has ruled for the last three months.

In England the unfavorable weather continues to oppress the farmers. Tho *Mark Lane Express* telegraphed review of the situation, dated March 20th, is as follows:

"Since our last weekly report no change of weatber for the be ter has occurred. Advices from France and Germeny concur in stating that the floods have been general. Anxiety for the future is daily increesing. At the end of last week unusual barometric depression occurred. Violent storms of wind, rain and snow followed and have prevailed since; consequently farmers at the present moment are nealy at a standstill as regards agricultural operations. Since the present condition of the land stops both sowing and threshing, it is only natural that this should he a serious source of anxiety to growers, though it by no means follows that late seed time is altogether objectionable. In deed, it has often resulted fn satisfactory crops. Hitherto tho Wheat plant has not been complained of except fn some inundated districts in France. Still, fine weather is greatly needed to enable farmers to get up arrears of field work, aud vegetation to recover from its temporary check. The general aspect of the Wheat trade has evinced a greater amount of confidence on the part of buyers and more active business, with improving tendency in prices than for some time past, owing prohably to the falling off in supplies on passage and small shipments from Southern Europe; also to the firmer tone of the American and Continental markets."

The Liverpool *Breadstuffs Circular* of Merch 17th says:

"The tempestous weather and heavy fall of rain and sleet have caused general complaints from the country districts. Not only are the chances for sowing interrupted, but weeks may elapse before the land can be got into condition again. Farmers' stocks of wheat are shortening. Shipments from ahroad are light, and with a generally revived demand English has advanced fully a shilliug per quarter this week. Foreign on the spot and off the coast is also rather dearer. Sellers to-day obtained two peuce per cental advance on white descriptions, and from a penny to two pence on red."

Since the date of these quotations the improving tendency has continued, as is shown by our table of cahle rates above.

Oceau freights do not yet show any change. The amount of disengaged tonnage in this port aggregates about 24,000 tons. Five vessels now in port are chartered for wheat. Two charters are as follows: Ship *Undaunted*, Wheat to Liverpool, £2 2s 6d; ship *West Riding*, Wheat to Liverpool, £2 5s. It is reported that engagements for November loading have been made on a basis of £3 @ £3 2s 6d, but this is only a rumor. We give it as we receive it.

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Weekly Receipts of Domestic Produce.

ARTICLES.	WEEK MAR. 1	WEEK MAR. 8.	WEEK MAR. 15.	WEEK MAR. 22,
Flour, quarter sacks	53,954	17,769	49,083	36,851
Wheat, centals	161,897	64,403	37,351	68,652
Barley, centals	9,799	8,165	8,402	13,465
Beans, sacks	1,201	1,831	2 920	1,299
Corn, centals	1,929	53	1,367	.....
Oats, centals	894	1,056	869	842
Potatoes, sacks	11,639	5,508	9,953	7,672
Onions, sacks	1,431	738	434	700
Wool, bales	102	60	280	305
Hops, bales	210	5	25	40
Hay, bales	1,277	541	2,183	4,196

Bags—Our quotations for Barley aud Oat Bags show a sharp advan e. It is attributed to large purcheses by city speculators. The full effect on the merket cannot be seen at this writing. We give the prices prevailing to-day. In other styles of Bags prices are unchangod.

Barley—Barley prices are unchanged and the trade is quict. We note sales: 4,000 ctls choice Chevalier, for Australia, $1.45; 200 do fair do, $1.37½; 4,000 do Coast Feed, $1.25, half silver; 200 sks dark Coast, $1.20, half silver; 400 do good do, $1.25; 350 sks good Feed, $1 22½; 300 do good Bay do, $1.27½, half silver; 600 sks Bay Feed, $1.22½@1.27½ per ctl.

Beans—Bean prices are unchanged, except for Pink. This variety is lower.

Corn—Corn is unchanged. We note sales: 100 sks good Yellow, $1.27½, half silver; 100 sks large Yellow, $1.25 per ctl, half silver; 400 sks good Yellow, $1.21¾ per ctl.

Dairy Produce—Prices are generelly maintained. There ie a larger supply of new Cheese coming in, which sells readily at quotations. Eggs are lower.

Feed—Feed is ruling at former quotations. We note sales: 40 tons good Volunteer Wheat and Oat at $16.50; 40 tons choice Wheat at $19; 47 do fair Wheat and Oat, $16 per ton. Straw is dull at 60@65c per bale.

Fruit—The Fruit merket exhibits some variation this week. In California Oranges tbere is a wide renge according to quality, and the price for best is considerebly advanced. It is a noticeable circumstence thet California Oranges are driving all others out of the market, owing to the superiority of flevor. Ali wc want now is a sufficient supply, when Tahiti Orenges will cease coming to the city, end we shall furnish Nevada and Utah at least.

Hops—There is nothing new in the local trade. The New York trade for the week ending March is reviewed by Emmett Wells, as follows:

"We have to report a very strong and active market, with the price one cent better this week on choice Hops, and with a fair prospect that 20 cents will be reached within the next few days. Whet effect this advance will heve on the export trade remains to be seen. Shippers have contended all along that there was no money in the business to them when they had to pay over 17c, yet they seem just as eager to huy choice State Hops now, as they did before the advance, and this too without any signs of improvement fn the price in London. California Hops are quoted at 17@ 20c."

Oats—Oats are unchanged. There are receipts continued from Oregon. The choicest Milling Oats will perhaps stand an extreme quotation of $2.30 per ctl. We note small sales of good Tomales at $2.15; 367 sks choice Feed, $2.25. Oregon Oats are held at $2.20@2.25 per ctl.

Onions—Prices are same as last week. The latest sales of Union City were at $1.12½ to $1.62½ per ctl. Sales of 167 sks Uniou City at $1.50@1.62½ per ctl.

Potatoes—Potatoes to-day are a little weaker, but during the early days of the week full prices were gained. The tendency is now downward. We note sales: 100 sks fair Petalumas, $2; 500 do good to choice do, $2.12½@2.25; 100 sks choice Cuffy Cove, $2.25; 400 do good Sacramento River, $2; 600 sks good to choice Tomales, $2@2.12½ per ctl. The receipts by coast steamers have been very hcavy, and the decline has set in since the sales ahove noted.

Provisions—First quality Beef is higher, while the lower grades are pleuty and lower. Pork is still higher.

Poultry—Poultry and Game are generally lower.

Vegetables—Cahhage can be hought a little lower. Asparagus is plenty, comparatively, and lower. Beets to-day are very scarce and high, owing to a Jewish holiday. The demand is of course only temporary.

Wheat—We advence our quotations to meet the improved rates which are now attainable. We note sales of 1,000 sks choice Milling $1.95; 1,500 sks in lots, Shipping, $1.80@1.85; 1 000 sks inferior Shipping $1,75, 150 sks fair, $1.77½; 500 do good Shipping, $1.85; 300 do fair, $1.80; 1,160 do fair Milling, $1.87½; 600 sks fair Shipping, $1.82½; 2,500 do fair do, $1.85; 5,000 do good do, $1.90 ₱ ctl.

Wool—There are increased receipts of Spring clip and we hear of sales at 16@17c. The market is still reported not opened by the dealers. But few of the Eastern buyers are here yet and another week is needed to open the trade. 200 hales were sold on Monday, but the price could not be ascertained. The Eastern markets ere telegraphed as follows:

NEW YORK, March 18.—The wool merket remains in every particular the same as last reported. Manufacturers continue to purchase very sparingly, and an absence of speculative inquiry is noticeable. The outlook for the future is anything hut encouraging. The present low prices ruling do not in the least indnce manufacturers to go beyond present requirements. They figure that if prices are low now with the present reduced supply, they will be still lower when the supply is increased hy receipts of the new Spring clips, which are due within the uext six weeks or two months, and they prefer to wait and see what the future will develop. Sales for the week are 400 pounds Cape, at ahout 37c; 22,000 pounds Spring California, part at 24@29c; 7,000 pounds Burry Fall do, 16c; 15 000 pounds Western Texas, 20c; 5,000 pounds fine do, 25@27c; 8,000 pounds Oregon, 33c; 5,000 pounds Super Pulled, 40c; 2,000 pounds X do, 34c; 19,000 pounds X and No. 1 Ohio fleece, 46@48c; 3,000 pounds unmerchantable do, 36c; 1,000 pounds unwashed Western do, 20c; 2,000 pounds quarter blood No. 2 wisconsin do, 41c; 5,000 pounds tuh-washed do, 47c; 5,000 pounds do, 15,000 pounds Fall California, 5,000 pounds pulled do, 1,000 pounds Domestic Noils, 80 hags scoured Texas, 40 hags X pulled, 585 do Super do, and 5 do No. 1, on private terms.

BOSTON, March 18th.—The wool market is quiet and sales smaller than for some previous weeks, the tone of the market being dull end unsatisfactory. When responsible buyers eppear, concessions are made. Prices of all grades are generally settling down, and there is every indication that the market w ll rule lower the coming year than for many years past. The principal transactions of the week have been in Pulled, and the Celifornia stock of Pulled is pretty large, and for good supers it is difficult to get over 40@43c; low grades of Pulled are quite neglected. Sales of Pulled have been 239,000 lbs at 23@35c for low supers up to 52c for choice Maine, the principal transactions having been in the range of 39@47c for Western and Eastern supers. Transactions in California haye been 326,000 lbs, at 20@32½c for spring and 14@22½c for fall. Holders are closing up stocks es fest as possible, as the next clip of Califor nia is neer at hand.

LUMBER.

CARGO PRICES OF REDWOOD.		PUGET SOUND PINE —Retail Price.	
		Rough, ₱ M	22 50
Rough, ₱ M	$18 00	Fencing, ₱ M	22 50
Rough refnse, ₱ M	14 00	Flooring and Step, ₱ M	32 50
Rough clear, ₱ M	30 00	Flooring, narrow, ₱ M	35 00
Rough clear refuse, M	20 00	Flooring, 2d quality, M	25 00
Rustic, ₱ M	32 50	Laths, ₱ M	3 50
Rustic, refuse, ₱ M	24 00	Furring, ₱ lineal ft	— —
Surfaced, ₱ M	30 00	REDWOOD—Retail.	
Surfaced refuse, ₱ M	20 00	Rough, ₱ M	22 50
Flooring, ₱ M	28 00	Rough refuse, ₱ M	18 00
Flooring, refuse, ₱ M	20 00	Rough Pickets, ₱ M	18 00
Beaded flooring, ₱ M	30 00	Rough Pickets, p'd, M	20 00
Beaded floor, refuse, M	25 00	Fancy Pickets, ₱ M	30 00
Half-inch Siding, M	22 50	Siding, ₱ M	25 00
Half-inch siding, ref, M	16 00	Surfaced and Long Beaded	37 50
Half-inch, Surfaced, M	25 00	Flooring	35 00
Half-inch Surf, ref, M	18 00	Do do refuse, ₱ M	25 00
Half-inch Battens, M	22 50	Half-inch surfaced, M	32 50
Pickets, rough, ₱ M	13 00	Rustic, No. 1, ₱ M	40 00
Pickets, rough, p'ntd	16 00	Battens, ₱ lineal foot	½
Pickets, fancy, p'ntd	25 00	Shingles ₱ M	3 2
Shingles, ₱ M	3 00		

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., March 22, 1876.

BEANS.			
Bayo, ₱ ctl	3 50@3 67½		
Butter	1 75@2 10		
Pea	1 75@2 12½		
Pink	2 75@2 10		
Sm'l white	1 70@1 85		
BROOM CORN.			
Common, ₱ lb	2 @ 3		
Choice, do	4 @ 5		
COTTON.			
Cotton, ₱ lb	15 @ 18		
DAIRY PRODUCE, ETC.			
BUTTER.			
Cel. Fresh Roll per lb	22½@ 26		
Point Reyes	27½@ 30		
Firkin	25 @ 27½		
W'st'n Reserve	16 @ 20		
New York	— @ —		
CHEESE.			
Cheese, Cal., lb	14 @ 16		
do Old	10 @ 15		
Eastern	15 @ 20		
EGGS.			
Cal. fresh ₱ doz	24 @ 25		
Ducks'	— @ 25		
Oregon	22½@ —		
Eastern	20 @ 22½		
FEED.			
Bran, per ton	— @22 50		
Corn Meal	29 00 @30 00		
Hay	15 00 @18 00		
Middlings	32 50 @— —		
Oil cake meal	— @37 50		
Straw, ₱ bale	— @ 65		
FLOUR.			
Extra ₱ hhl	5 75 @6 25		
Superfine	4 75 @5 12½		
FRESH MEAT.			
Beef 1st quality lb	8 @ 10		
Second do	5½@ 6½		
Third do	3½@ 4½		
Spring Lamb	9 @ 10		
Mutton	5½@ 6		
Pork, undressed	8 @ 8½		
do, dressed	10½@ 11½		
Veal	5 @ 7		
Milk Calves	8 @ 8½		
GRAIN, ETC.			
Barley, feed ctl	1 20 @ 1 25		
do brewing	1 30 @— —		
Chevalier	1 25 @ 1 40		
Corn, White	1 15 @ 1 25		
do Yellow	1 15 @ 1 25		
Oats,	2 00 @ 2 10		
Milling	— @ 2 25		
Rye	1 65 @ 1 75		
Wheat shipping	1 90 @ —		
do milling	1 95 @ —		
HIDES.			
Hides, dry	15 @ 16½		
do wet salted	6½@ 7		
HONEY, ETC.			
Beeswax, per lb	25 @ 27½		
Honey in comb	18 @ 20		
do Strained	8 @ 13		
HOPS.			
New crop	10 @ 12		
NUTS—Jobbing.			
Almonds, hard sh'l lb	8 @ 10		
do, soft sh'l	16 @ 18		
Brazil do	14 @ 16		
Cal. Walnuts	7 @ 11		
Chile Walnuts	11 @ 12½		
Peanuts per lb	9 @ 10		
Filberts	15 @ 16		
Pecanuts	17 @ 18		
ONIONS.			
Union City ctl	1 50 @ 1 75		
Stockton	1 50 @ 1 75		
POTATOES.			
Petaluma, ₱ ctl	1 87½@ 1 90		
Salt Lake	— @— —		
Sac River	1 62½@ 1 90		
Humboldt	1 75 @ 1 90		
Early Rose	— @ 3 00		
Sweet	— @ 3 50		
New, lb	6 @ 8		
POULTRY & GAME.			
Hens, per dz	6 00 @ 7 50		
Roosters	6 00 @ 8 00		
Broilers	6 50 @7 50		
Ducks, tame, dz	11 00 @13 00		
do Mallard	— @5 00		
do Canvass	— @5 00		
Geese, per pair	2 50 @3 50		
Wild Gray dz	3 00 @4 00		
White	1 50 @2 00		
Turkeys, Live, lb	21 @ 23		
do Dressed	22 @ 24		
Quail, per doz	— @2 50		
Snipe, Eng., doz	2 00 @2 50		
Doves, per dozen	50 @ 75		
Rabbits	1 00 @1 50		
Hare, per doz	1 50 @2 00		
PROVISIONS.			
Cal. Bacon, L't, lb	16½@ 17		
do Medium	16 @ 16½		
do Heavy	— @ 15½		
Lard	15 @ 17		
Cal. Smoked Beef	9 @ 10		
Eastern do	— @ 12½		
East'rn Should's	— @ 10		
Hams, Cal	14 @ 14½		
do Armour	15½@ 16		
do Worster's	16 @ 16½		
do Dupee's	16 @ 15½		
do Davis Bros'	16 @ 16½		
SEEDS.			
Alfalfa, Chile lb	8½@ 11½		
do California	11 @ 12		
Canary	20 @ —		
Clover Red	— @ 25		
do White	50 @ 55		
Cotton	6 @ 10		
Flaxseed	— @ 3¼		
Hemp	12½@ —		
Italian Rye Grass	25 @ 30		
Perennial do	20 @ 30		
Millet	10 @ 12		
Mustard, White	3 @ 3½		
do, Brown	3 @ 3½		
Rape	7 @ 9		
Ky. Blue Grass	33 @ —		
do 2d quality	29 @ —		
do 3d quality	— @ —		
Sweet V Grass	— @ 75		
Orchard do	30 @ 35		
Red Top do	— @ 25		
Hungarian do	8 @ 12		
Lawn do	50 @ —		
Mesquit do	20 @ 25		
Timothy	11 @ 13		
TALLOW.			
Crude, ₱ lb	6¾@ 7⅛		
Refined	8¾@ 9		
WOOL, ETC.			
FALL—			
Seedy, ₱ lb	11 @ 12½		
Choice free	12 @ 18		
Burry	9 @ 11		
Oregon	— @ —		

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., March 22, 1876.

FRUIT MARKET.			
Oranges Mex. ₱ M	— —@— —		
Tahiti, do	— —@— —		
Cal. do	25 10@75 00		
Limes, Mexican, ₱ M	15 00@20 00		
Malaga Lemons, ₱ hx	— —@— —		
Cal. ₱ 100	2 00@ 2 75		
do Sicily ₱ b'x	12 00@14 00		
Bananas, ₱ bnch	2 50@ 4 00		
Occoanuts, ₱ 100	7 00 @ 8 00		
Pineapples, ₱ dz	6 00 @ —		
Apples, ₱ hox	1 87½@ —		
do Choice	2 00 @3 50		
Blackberries	— @ —		
Figs	— @ —		
Huckleberries	— @ —		
Strawber's ₱ ch	— @20 00		
Pomgranates	— @ —		
Raspberries	— @ —		
Currants, ₱ ch	— @ —		
Quinces ₱ bx	— @ —		
Cranberries ₱ hbl	13 00@14 00		
Peaches, ₱ hx	— @ —		
Pears, ₱ hx	1 75 @3 00		
do Choice	— @ —		
Crab apples, ₱ bx	— @ —		
DRIED FRUIT.			
Apples, ₱ lb	9 @12½		
Pears, ₱ lb	8 @13		
Peaches, ₱ lb	13½@15		
Apricots, ₱ lb	14 @15		
Plums, ₱ lb	7 @ 8		
Pitted, do ₱ lb	17 @20		
Raisins, imported	3 25 @3 75		
Cal. Raisins	8 @ 12½		
Black Figs, ₱ lb	5 @10		
White, do	8 @10		
Prunes	12½ @17		
Citron	28 @ 30		
Zante Currants	9 @ 10		
VEGETABLES.			
Asparagus ₱ lb	12½@15		
Beets ₱ ctl	— @ 5		
Cabbage, ₱ 100 lb	1 25@1 37½		
Carrots, per ton	12 50@15 00		
Cauliflower, doz	50@1 00		
Celery, doz	50 @75		
Garlic, ₱ lb	— @ 6		
Green Peas ₱ lb	5 @ 6		
Green Corn ₱ doz	— @—		
Sum'r Squash ₱ box	— @—		
Marrofat Sqush, tn	20 00@25 00		
Artichokes, ₱ doz	— @—		
String Beans, ₱ lb	— @ —		
Lima Beans	— @—		
Parsnips	— @—		
Shell Beans	— @—		
Peppers, green, bx	— @—		
Okra	— @ —		
Cucumbers, ₱ doz	—@4 00		
Tomatoes, box	—@ —		
Egg Plant, bx	—@ —		
Rhubarb	12½ @ 15		
Lettuce	—@ —		
Turnips, pr ctl	75 @1 00		
Mushrooms, lb	—@ 20		

LEATHER.

[WHOLESALE.]

WEDNESDAY M., March 22, 1876.

City Tanned Leather, ₱ lb	22@29
Santa Cruz Leather, ₱ lb	22@28
Country Leather, ₱ lb	22@28
Stockton Leather, ₱ lb	25@28
Jodot, 8 Kil., per doz	$50 00
Jodot, 11 to 13 Kil., per doz	68 00@ 70 00
Jodot 14 to 18 Kil., per doz	82 00@ 94 00
Jodot, second choice, 11 to 16 Kil. ₱ doz	57 00@ 74 00
Cornellian, 12 to 16 Ko	57 00@ 67 00
Cornellian Females, 12 to 13	63 00@ 67 00
Cornelliaa Females, 14 to 16 Kil	71 00@ 76 50
Simon Ullmo Females, 12 to 13, Kil	58 00@ 62 00
Simon Ullmo Females, 14 to 15, Kil	66 00@ 70 00
Simon Ullmo Females, 16 to 17, Kil	72 00@ 74 00
Simon, 18 Kil., ₱ doz	61 00@ 13 00
Simon, 20 Kil. ₱ doz	65 00@ 67 00
Simon. 24 Kil. ₱ doz	72 00@ 74 00
Robert Calf, 7 and 9 Kil	35 00@ 40 00
French Kips, ₱ lb	1 00@ 1 12
California Kip, ₱ doz	40 00@ 50 00
French Sheep, all colors, ₱ doz	8 00@ 15 00
Eastern Calf for Backs, ₱ lb	1 00@ 1 25
Sheep Roans for Topping, all colors, ₱ doz	9 00@ 13 00
Sheep Roans for Linings, ₱ doz	5 50@ 10 50
California Russett Sheep Linings	1 75@ 4 50
Best Jodot Calf Boot Legs, ₱ pair	5 00@ 5 25
Good French Calf Boot Legs, ₱ pair	4 00@ 4 75
French Calf Boot Legs, ₱ pair	4 00@ —
Harness Leather, ₱ lb	24@ 32½
Fair Bridle Leather, ₱ doz	48 00@ 72 —
Skirting Leather, ₱ lb	33@ 37½
Welt Leather, ₱ doz	30 00@ 50 00
Enff Leather, ₱ foot	17@ ⅓
Wax Side Leather, ₱ foot	17@

RETAIL GROCERIES, ETC.

WEDNESDAY M., March 22, 1876.

Butter, Cal. ch'ice	35 @ 45	Bowen Bro. large can per doz	5 00 @— —
Cheese, lb	18 @ 30	Small, do	2 50 @ —
Eastern	25 @ 30	Bowen's Cream Tartar lb	— @ 75
Lard. Cal., lb	— @ 18	Can'd Oysters, dz	2 00 @3 50
Eastern	20 @ 25	Syrup, S F. Gol'n	75 @1 00
Flour, ex. fam. bbl	6 25 @6 50	Dried Apples	10 @ 12½
Corn Meal, lb	2½@ 3	Dr'd Ger. Prunes	12½@ 14
Sugar, wn. crsh'd	12½@ 13½	Dr'd Figs, Cal	9 @ 10
do lt. brown, lb	8 @ 9½	Dr'd Peaches	11 @ 15
Coffee, green, lb	23 @ 35	Oils, Kerosene	30 @ 40
Tea, fine blk, 50, 65, 75	@1 00	Wines, Old Port	3 50 @5 00
Tea, finest Jap, 85, 75, 90	@1 00	do Fr. Claret	1 00 @2 50
Candles, Admant'ol	15 @ 25	do Cal., dz. bot	3 00 @4 50
Soap, Cal., lb	7 @ 10	Whisky, O K, gal	3 50 @5 00
Rice, lb	8 @ 12½	Fr. Brandy	4 00 @8 00
Yeast Powders, dz	1 50 @2 00		

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., March 22, 1876.

BAGS.			
Eng. Stand Wh	11¾@12		
Nevills & Co's Hand Sewed	11½@12		
24x36	12 @12½		
24x40	— @—		
Machine do 24x40	12½@13		
" " 23x40	12 @12½		
" " 22x40	11 @11¼		
" " 22x36	11 @11½		
Flour Sacks ⅛s	9½@11		
" " ¼s	6½@ 7		
" " ½s	4½@ 5		
Hessian 60-in	12½@14½		
do 45-in	9½@10		
do 40-in	8 @ 8½		
Wool Sacks, 3½ lbs	45 @50		
do 4"	50 @52½		
Stand. Gunnies	— @15		
single seam no	— @—		
Bean Bags	7½@ 8		
Barley Bags 24x36	12 @13		
do 23x40	12½@13½		
do 24x40	13 @14		
Oat Bags, 24x40	13 @14		
do 28x36	— @—		
CANNED GOODS.			
Assd Pie Fruits in 2½ ₱ cans	2 75 @ 3 60		
do Table do	3 75 @ 4 25		
Jams & Jellies	4 25 @ —		
Pickles ½ gl	— @ 3 50		
Sardines, qr box	65 @ 1 90		
do ht boxes	3 00 @— —		
COAL—Jobbing.			
Anstralian, ₱ ton	— @10 50		
Coos Bay	8 00 @10 00		
Bellingham Bay	— @ 8 50		
Seattle	9 25 @10 50		
Cumberl'd	— 16 @— 18		
Mt. Diablo	6 25 @8 25		
Lehigh	— — @22 00		
Liverpool	10 00 @11 00		
West Hartley	— — @14 00		
Scotch	9 00 @11 00		
Scranton	13 00 @16 00		
Vancouver's Isl.	10 50 @12 00		
Charcoal, ₱ sk	75 @ —		
Coke, ₱ hhl	— @ 60		
COFFEE.			
Sandwich Island	— @ 21½		
Costa Rica per lb	22½@ —		
Guatemala	— @ 22½		
Java	— @ 31		
Manilla	— @ 21½		
Ground in cs	25 @ —		
Chicory	27 @ —		
FISH.			
Sao. Dry Cod, new	4 @ 4½		
cases	6 @ 7		
do honeless	8½@ 10		
Eastern Cod	7½@ 8		
Salmon in hhls	7 00 @8 00		
do ½ hhl	3 75 @4 00		
do 2 ₱ cans	2 25 @2 40		
do 1 ₱ cans	1 25 @1 60		
do Col. R. ½ lb	5 00 @5 00		
Pick. Cod, hhls	22 00 @—		
do ½ hhls	11 00 @—		
Mack'l, No. 1, ½ hhls	2 50 @ 3 00		
" Extra	— @12 00		
" in kits	2 00 @2 75		
" Ex mess, ½ bs	— @12 00		
" Ex mess, ¼ bs	— @ 4 50		
" Ex mess, ½ bs	— @12 00		
Pic'd Herr'g, bx	3 00 @ 3 50		
Bos. Sm'k'd Her'g	40 @ 50		
LIME, ETC.			
Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25		
Cement, Rosendale, do	2 75@ 3 50		
do Portland do	4 75@ 5 50		
Plaster, Golden Gate Mills	3 00@ 3 25		
Land Plaster, ₱ ton	10 00@12 50		
MISCELLANEOUS.			
Puna	7 @ 9		
NAILS.			
Assorted size, Keg	3 75 @4 00		
OILS.			
Pacific Glue Co Neat F't No. 1	1 00 @ 90		
Pnre	— @—		
Castor Oil, No. 1	— @1 25		
Baker's A A	— @1 40		
Cocoannt	55 @ 60		
Olive Plagniol	5 50 @5 75		
do Possel	4 75 @5 00		
Palm lb	9 @ —		
Linseed, raw	80 @ —		
do holled	— @ 75		
China nut in cs	70 @ 75		
Sperm, crude	— @1 40		
do bleached	1 90 @2 25		
Coast Whales	47½@ 50		
Polar, refined	— @ —		
Lard	— @ —		
Oleophine	— @ 28		
Devoe's Bril't	— @ —		
Long Island	— @ —		
Eureka	26 @ 27		
Devoe's Petro'm	25 @ 27½		
Barrel kerosene	23 @ 25		
Olive	— @3 50		
Downer Karose'e	40 @ —		
Elaine	37½@ —		
Gas Light Oil	23 @ 25		
PAINTS.			
Pure White Lead	9¾ @10¼		
Whiting	— @ 2		
Putty	4 @ 5¼		
Chalk	— @ 2½		
Paris White	2¾@ —		
Ochre	3 @ 5		
Venetian Red	3½@ 5		
Red Lead	10 @ 11		
Litharge	10 @ 11		
Eng. Vermillion	—@1 25		
Averill Chemical Paint, per gal. White & tints	2 00 @3 40		
Green, Blue & Oh Yellow	3 00 @3 50		
Light Red	3 00 @3 50		
Metallic Roof	1 30 @1 60		
RICE.			
China No. 1	6 00 @ —		
Hawaiian, ₱ lb	7½@ 7¾		
Carolina, ₱ lb	10 @ —		
SALT.			
Cal. Bay, per ton	10 00@14 00		
do Common	5 00@ 7 00		
Carmen Island	12 00@15 00		
Liverpool fine	22 50@25 00		
SOAP.			
Castile ₱ lb	10 @ 11¼		
Common brands	4½@ 6		
Fancy do	7 @ 8		
CANDLES.			
Grant's	16½@ 17		
Mitchell's	20 @ 22		
SPICES.			
Cloves ₱ lb	45 @ 47½		
Cassia	23½@ 26½		
Citron	28 @ 30		
Nutmeg	95 @ 97½		
Whole Pepper	14½@ 14½		
Pimento	16 @ 17		
Grnd Allsp'ce	— @21 12½		
do Cassia	— @1 50		
do Cloves	— @1 50		
do Mustard	— @1 20		
do Ginger	— @1 00		
do Pepper	— @1 00		
do Mace	— @2 00		
Bowen's Pure Ground ₱ lb	— @ 50		
SUGAR, ETC.			
Cal. Cube per lb	— @ 11¼		
Circle A crnshed	— @ 11		
Powdered	— @ 11¼		
Fine crushed	— @ 11		
Granulated	— @ 10¾		
Golden C	— @ 9½		
Hawaiian	10 @ 11		
Cal. Syrup in kgs	— @ 70		
Hawaiian Molasses	25 @ 27½		
TEA.			
Oolong, Canton, lb	19 @ 25		
do Amoy	28 @ 50		
do Formoss	40 @ 80		
Imperial, Canton	25 @ 40		
do Pingsuey	45 @ 80		
do Moyune	60 @1 00		
Young Hy., Canton	28 @ 40		
do Pingsuey	40 @ 70		
do Moyune	65 @ 85		
Japan, ½ chests, hulk	30 @ 75		
Japan, lacquered hxs, 4½ and 5 lbs	45 @ 67		
Japan do, 3 lb hxs	45 @ 90		
do pl'n bx, 4½ lb	35 @ 65		
do ½ & 1 lb paper	30 @ 55		
TOBACCO—Jobbing.			
Bright Navys	50 @ 65		
Dark do	50 @ 55		
Paces Tin Foil	— @ 75		
Gregory	70 @ —		
Dw f Twist	65 @ 75		
Light Pressed	70 @ 80		
Hard do	50 @ 60	

The Horse.

To Train a Colt.

A writer in the New York *Spirit* gives the following record of successful practices in colt rearing and training:

Well, we have bred our mare. In dne time the foal presents itself, and pleases ns. The mare is turned to pastnre; proving a good milker, the foal has summered well. We take him np in the fall, wean and halter-break him. His feet now, upon examination, will probably be found very long at the toe, throwing him back upon his pastern; have the surplus foot taken away, giving him a level bearing—a very important matter; attend to it. If, upon weaning, he shonld become poor, yet feeds well, you may calculate he has worms; if so, Prof. Goings' remedy will remove them: "Give the foal, every day for one week, in its food, a powder composed of one drachm of powdered sulphate of iron, one drachm of powdered gentian and two grains of cantharides, and every other night an injection of half a pint of linseed oil and half an onnce of tnrpentine." Feed him on malted bran and steamed oats, with carrots occasionally; keep him warm and comfortable at nights, and he will grow all winter. Summer and winter him well until he is three years old. As he has been wintered in town every year, his handling has gentled him so that it is not a difficnlt matter to

Break him to Harness;

Drive him for a time donble if you have a good steady horse to drive him with. If you are to be successful in breaking colts you must exercise the virtne of patience. The well-bred colt is usnally "high-toned," and, as breaking is a critical time yon must not he in a hnrry, remembering, at all times, that "Grievous words stirreth up anger, but mild words turneth away wrath," or words to that effect. Our colt being broke single, as well as double, we will proceed to develop the speed which we certainly have reason to believe he has inherited. After handling him quietly for some time, to gain his confidence, we pnsh him some, and, satisfying onrselves that he has plenty of speed, we let up on him until he is four, when we propose to give him snug work. He is now four years old, and we commence to give him regnlar work. He is pure and level in his gait. After a time he

Begins to Hitch;

There must be some cause for this. Thinking he has too much work, we let up for a time, but as soon as we begin to send him along he begins to hitch again, and swing from one side to the other with his hind quarters. Upon examination yon find that he has been hitting his hind foot about the coronet with the toe of his front foot in passing by; or, if an open gaited long strider, you may find, by putting on shin boots behind, that he is hitting his shins or pasterns in passing by boot. For this the principal thing in handling a colt is to watch him closely, and when you see him changing his gait ascertain the cause at once, and remove it, if possible. It is very hard to square np a confirmed hitcher; sometimes toe weights on the front feet will do it, the weights regulating the action the same as the regnlator to the steam engine; if that fails, then weight behind—weight first the foot he steps short on; if not satisfactory, try the other, then both. If your colt is a little hot headed, and you urge him too mnch, you may get him to

Single-Footing.

The only way out of this is by very heavy shoeing forward, or the toe weight, which will certainly square his gait. The little mare, Nashville Girl, wears 22 onnce shoes. Why? Because she reqnires them to keep her steady in gait. I think 12 ounce shoes and 6 ounce weights would be preferable. At the races in Cleveland, in 1874, before Charlie Green handled her, in scoring in the race in the first and second heats, she would come to the score single-footing and unsteady; bnt, by the skillful handling and shoeing of Charlie Green, you see no more of that. Should your colt get into the bad habit of

Carrying the Head to One Side,

Or annoy you by shying, I advise, by all means to try the Baldwin bit. Horses often carry their heads to one side, because the molars have prominent points on them that cut and lacerate the inside of the cheek; whenever you find your horse troubling yon in that way, have them filed. If he still continues the bad habit, use the Baldwin bit by all means. One of the most annoying things of the many that worry the breeder and the trainer is scratches. I reckon Prof. Copeman has recommended 50 different remedies. I was going to state I had tried them all, but I will qualify it, and say a large nnmber, and for speedy cracks nothing, in my experience, equals this, by Prof. Copeman: "Two drachms of oxide of zinc, two ounces of lard, twenty grains of gum benzoin, two drachms of camphorated spirits." Occasionally your young horse "stumbles" behind. I have always overcome this by weighting. Of course, if it arises from accult hock difficnlty, weighting will do but little good. The very annoying trick that colts are very apt to acquire is tongue lolling. This is easily overcome by snspending the driving bit, or attaching it to the check by means of a simple elastic band, three-qnarters of an inch (one inch is better) wide, one and three-qnarters or two inches long; fasten the band in the center of your check bit by needle and thread. By this means you get rid of the tongue lolling habit.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

THOMAS MEHERIN,

AGENT FOR

B. S. FOX'S NURSERIES.

516 Battery Street, - - San Francisco.

(Opposite Post-office.)

I now offer for sale at Lowest Market Rates, a large and choice assortment of FRUIT, SHADE and ORNAMENTAL TREES, POT PLANTS, BLUE GUMS, MONTEREY CYPRESS, and ENGLISH WALNUTS, per 100 or 1000 at very low rates. Send for Price-list.

THOMAS MEHERIN,

P. O. Box, 722. 516 Battery Street.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, [W. H. PEPPER,

19v3-tf Petaluma, Sonoma Co., Cal

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at roduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

TREES FOR FRUIT AND ORNAMENT.

500 Acres of Trees at Wholesale & Retai

Pear, Apples, Cherries, Quinces.
Peaches, Plums and other Small Fruits.
New and Rare Ornamental Trees and Shrubs.
Evergreens, large quantity, large variety, cheap.
Cut-leaved Birch, Purple Beech, Weeping Trees.

Clematis Jackmanni—Hardy and perpetual; blooms profusely until frozen up.

Perpetual White Clematis, 15 sorts. We have over 70 varieties of Clematis, in many shades of color, from dark rich purple to pure white—strong plants, safely sent by mail.

Roses, Moss, Tea, Climbing and Perpetnal.

Small Packages sent safely by mail and express.

Catalogues free. Address

T. C. MAXWELL & BROS.,

Geneva, N. Y.

BAY NURSERY,

OAKLAND, CAL.

Lock Box, - - - 331.

JAMES HUTCHISON, Proprietor.

[Established 1852.]

Has for sale an Immense Stock of EVERGREEN TREES, SHRUBS and FLOWERING PLANTS at GREATLY REDUCED PRICES. Monterey Cypress Seedlings from two and a half to five dollars per hundred. Two and three year plants two to six feet, twelve and a half to twenty-two dollars per hundred. Chinese Arbor Vitæ, twelve to sixteen inches, eight dollars per hundred.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Lnissnte.

Chestnut: Marron de Lyon and Combale.

Walnut: Præparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

100,000 BLUE GUM TREES

FOR SALE.

Grown in open ground and of most excellent quality—FAR SUPERIOR TO ANY BOX GROWN PLANTS—offered at Greatly Reduced Rates.

500,000 SEEDLINGS AND BOX GROWN TREES

In fine order, at ten and fifteen dollars per thousand. All trees delivered on wharf in San Francisco at nursery rates. We wish it distinctly understood our trees for forest planting are RESPONSIBLE NURSERY STOCK. Address

W. A. T. STRATTON,

PACIFIC FOREST TREE NURSERIES,

Petaluma, Cal.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nnrsery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camellias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

Trade Price-List on application.

*** My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All Abont Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Nnmbers.
TWINE for Sewing, Etc.

H. K. CUMMINGS. 1858. H. H. HALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the producer. 4v23-1y

W. R. STRONG, Seedsman. Established 1857. 1876. ROBT. WILLIAMSON, Nurseryman, Established 1865.

SEEDS. W. R. STRONG & CO. TREES.

S. F. Office, 418 & 420 Clay St., Sacramento Office, 8 & 10 J St., Nursery Grounds, Sacramento Co.

GREAT REDUCTION IN SEEDS.

Seeds heretofore retailed by all dealers at Ten cents per paper, we will now furnish at Five cents. They will be forwarded by mail, postpaid, to any part of the United States without extra charge (except on heavy Seeds, such as Peas, Beans and Corn; on which postage will be added). This will cover Vegetable and Flower Seeds. Also, a great reduction on all higher-priced papers. Money should always accompany orders, and may be forwarded in registered letters, or by postal orders at our risk. Our assortment is probably the finest on the Coast.

Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, W. R. STRONG & CO., House in San Francisco, STRONG & WILLIAMSON.

ALFALFA a Specialty, and furnished to the trade, or in small quantities, at lowest possible rates.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS Address Excelsior Mf'g Co., 161 Mich. Ave., Chicago, Ill

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL.

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

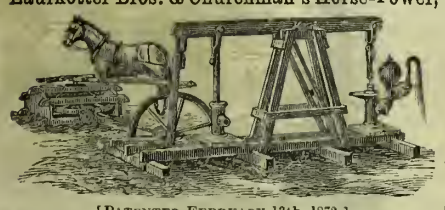
Agricultural Articles.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Sheilers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S

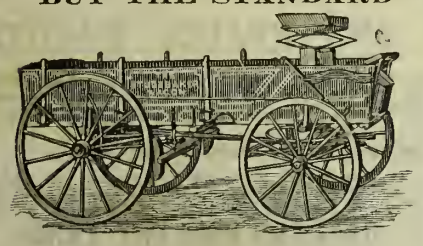
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. E. AMES, Gen. Agent,
Send for Price-List. Sacramento, Cal.

NOTICE TO THRESHERS.

WANTED—TO EXCHANGE,

A Rice's Straw Burning Engine for a Wood Burner.

For further particulars address J. W. RILEY, care of Dewey & Co., 224 Sansome St., San Francisco.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 47 Cal. Market S.F

THE ONLY RELIABLE
STRAW BURNING ENGINES.

RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world. They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the state, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific Coast, and all orders should be addressed to them.

SAN FRANCISCO, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street San Francisco, and corner Second and J Streets, Sacramento.

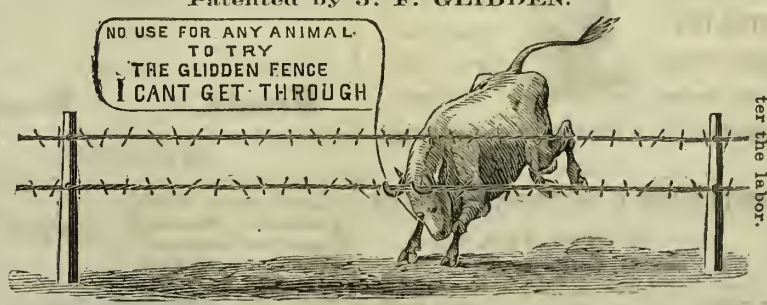
P3feb76tf * MARCUS C. HAWLEY & CO.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞ Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
General Agents for the Coast. K and 10th Streets, Sacramento.

9 12 15 20 HORSE POWER. ALL SIZES Hoadley's PORTABLE Engines

Sole Agents TREADWELL & Co

From year to year they have been improved under the personal supervision of Mr. Hoadley. The last great improvement is the REGULATING CUT-OFF, with balanced valve, thus giving it all the economy and increased power of the most thorough-built Corliss Stationary Engine. By this addition, a 15-horse power Hoadley Portable can be run at over 40-horse power, if required. ☞ As a Threshing Engine, the Hoadley is the leading engine of the country. It has no equal. For prices, etc., send to

TREADWELL & CO., S. F.

LIBERAL ADVANCES ON CONSIGNMENTS.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good Liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

FRANK BROS. & CO.,

IMPORTERS OF

AGRICULTURAL IMPLEMENTS,

349 Market Street, San Francisco.

SOLE AGENTS FOR THE

Genuine Wood's Machines, La Belle Farm and Freight Wagons, Sweepstake Thresher, Coate's Sulky Rake, Buford's Gang and Sulky Plows, Collins' Cast Steel Plows, Black Hawk Single Plows, etc., etc.

WE ALSO HAVE A FULL LINE OF

WOOD AND STEEL GOODS, SUCH AS RAKES, FORKS, SHOVELS, ETC., ETC.

In fact, everything needed by Farmers. Dealers and Farmers, examine our Prices, as they are the Lowest on the Coast.

GREAT SALE

—OF—

Thorough-bred Short-horn Cattle and Berkshire Hogs,

To be Sold at Public Auction,

ON THURSDAY, APRIL 20th, 1876,

At the Fair Grounds, Sacramento,

Under the Auspices of the Short-horn Breeders' Association of California.

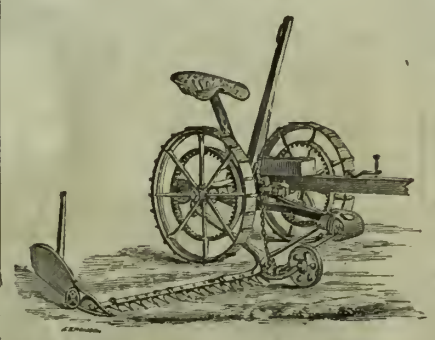
Consisting of Young Bulls, Cows, Heifers, and the entire herd belonging to the estate of G. N. Sweezy, of Marysville. We would say to the public, and especially to those wanting young bulls to improve their herds, that no better opportunity will be offered than at this sale for parties wishing to purchase, as a large number of the principal breeders of the State have each contributed a few head of choice animals to be sold. Catalogues furnished on application to Cyrus Jones, at Sacramento until April 3d, after that time at San Jose, Cal.

CYRUS JONES, Pres't.

ROBT. ASHBURNER, Secretary.

LINFORTH, KELLOGG & CO.,

3 and 5 Front Street, - - - - San Francisco.



WM. ANSON WOOD'S EAGLE MOWER.

RUSSELL PEERLESS MOWER.

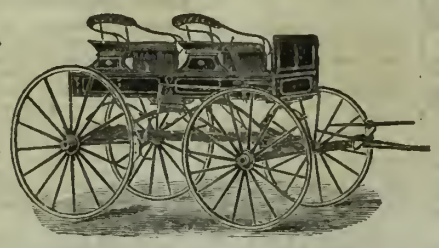
WM. ANSON WOOD'S EAGLE MOWER,

Now acknowledged to be the LEADING MOWER ON THE PACIFIC COAST. First—From its durability and strength, being constructed of iron and steel. Second—From the rapidity of its motion, cutting all kinds of grass. IT WILL ALSO WORK ON VERY UNEVEN GROUND.

RUSSELL'S PEERLESS MOWER,

New Improved, with Rear Cut, High, Broad Wheels and Covered Frame. It runs the lightest, has less side draft and the gearing is better protected than any machine in the market. There is less danger of breakage and no fear of stoppages by dirt dropping into the cogs.

A Full Supply of Extras for the above Machines Constantly on Hand.



FISH BROS.' FOUR SPRING WAGON.

FISH BROS.' PLATFORM SPRING WAGON

FISH BROS. & CO.'S

PACIFIC FARM, SPRING AND HEADER WAGONS.

The best painted, the best proportioned, the best ironed, and the Best Wagon on Wheels. We can sell a BETTER SPRING WAGON FOR LESS MONEY than any firm in California, comprising Two Spring "Specie Basis" and Platform Spring Delivery Wagons; Three and Four Spring Express Wagons, both with plain and Sarven's Best Patent Wheels.

LINFORTH, KELLOGG & CO.,

3 and 5 Front Street, S. F.

POND LILIES,

WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,

Pacific Forest Tree Nursery, Petaluma, Cal.

HEALD'S Business College.

24 Post street, San Francisco.

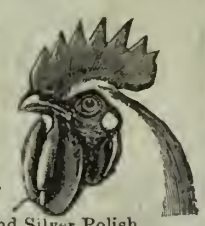
The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Lengueges are practicelly taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT. — In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

M. FALLON,



Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks,

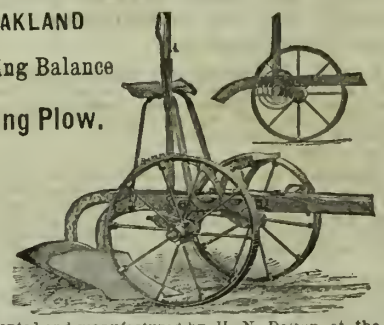
All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Delton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco, 22v7-1y

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

FARMERS write for your paper.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, APRIL 1, 1876. [Number 14.

The Brighton Grape.

We print on this page, as a thing of interest to grape growers, an illustration of the Brighton grape, which has just been introduced to public notice. The variety was established by Mr. Jacob Moore, of Brighton, New York. Mr. Moore is well known at the East for his devotion to the business of artificial crossing of fruits to produce new varieties. The Brighton grape is one of many seedlings of his. It is a cross between the Concord and Diana Hamburg. The infusion of the Hamburg blood has apparently given it quality, while the preponderance of native element preserves to it vigor and hardiness of plant and foliage. The following points of excellence are claimed for the new grape: It has flavor and richness, and very sweet, pure and delicate in character. The vine grows with great rapidity, ripens its wood early, and proves fully as hardy as the Concord. The Brighton ripens along with the earliest good sorts. It is as large and as beautiful as the Catawba, which it resembles in color and form of bunch and berry. The Brighton vine has very large, glossy, dark-green leaves, which are very attractive and promise to be free from disease in most localities. This can, however, only be decided upon by actual trial for several years and in many places.

The engraving is an accurate copy of a photograph of a portion of the trellis upon which the original vine is growing. It was taken when the fruit was ripe, and shows a three and one-half foot section of the vine.

Of course to produce so fine a result as is shown in our illustration, there was a special effort to concentrate the fruiting. The way this was done is described as follows by Mr. H. E. Hooker, of Rochester, New York, who has charge of the introduction of the grape. Mr. Hooker writes: Few even of good cultivators are aware of the amount, excellence and uniform appearance of the grapes which can be produced by the system of pruning, sometimes called the Fuller system, by which all the fruit allowed to be produced is grown upon a single arm extended laterally only.

The Brighton vine received no special manuring, indeed, high manuring would not be desirable, and was pruned to one arm extended upon each side of the stem upon the lower wire; the shoots upon the two-year old wood were cut back to the last good strong eye next to the arm, and upon the one-year-old wood, or extension of the arm, the weaker buds were rubbed off, leaving only as many shoots as I supposed the vine could safely carry. I am satisfied that I allowed the vine to carry a larger crop than was desirable, all things considered, for quality is sacrificed in such cases. It may not prove to be all that I think it is; trial in various localities alone can determine its ultimate value.

THE BRIGHTON GRAPE.

CENTENNARIAN AND MORE SO.—We have been shown a photograph of Senora Ulilia Peris Gien, of San Gabriel mission, (nine miles from Los Angeles), who passed her 130th birthday last November. We are told that her age is well authenticated. The lady's photograph will go to the Centennial with her life printed so that all may see and read. A person of such age is pretty good for so young a state as California.

A Common Necessity.

In the successful management of farming industries in this State, there is perhaps no appointment more essential and indispensable than a plentiful supply of good fresh water, available and ready for use at all times. The most common method of obtaining this supply now in vogue, is by means of windmills; and to all appearances, aside from natural running streams, this is the cheapest and most approved plan for securing water by artificial means. We present to our readers in this issue, in our advertising columns, a representation of the celebrated "Althouse" windmill. We are informed that this mill is enjoying an unbounded popularity and unprecedented sale in the Eastern States, more particularly for the reason of its self governing and self-regulating principles, together with its complete and durable construction and ornamental appearance. It has lately been introduced on this coast, and as evidence of its immediate appreciation, we will inform our readers that it was awarded a silver medal and first premium at the California State fair of last year, and the first premium at the Stockton district fair, September, 1875. In a State like ours, where the want of plentiful supplies of water is so generally felt, and where so much discussion has been invited in solving the most feasible and cheapest plan for obtaining it, the action of the State agricultural society, in the face of lively competition, must have great influence in deciding which style of windmill is best adapted to general wants. A large number of the "Althouse" pattern are now in successful operation throughout the State and coast, and are highly appreciated and recommended. Messrs. Baker and Hamilton, Nos. 7 to 19 Front street, San Francisco, and Nos. 9 to 15 J street, Sacramento, are the general agents for California and Nevada, to whom all orders can be addressed.

ANGORA GOATS FOR CALIFORNIA.—A dispatch from New York, dated March 27th, says: John S. Harris, of California, arrived at Baltimore a few days ago with 12 Angora goats which he had brought from Asia Minor, after a difficult journey lasting a year. They have already cost him $525 apiece. Harris hopes to make them profitable in the Sierras of California.

HAY CUTTING is reported from Yolo and Ventura counties.

Agriculture at the Capital.

During the week the Legislature has been employing the days of the rapidly closing session to speedy disposition of many of the matters which have come before them. The number of bills which have been "indefinitely postponed" is immense. Action has been had on other matters, and perhaps enough has been done to allow the State to survive during the two years which must elapse ere we have more new laws. The session will close April 3d.

Agricultural Societies.

During the week the Assembly has discussed the appropriation for the agricultural societies, and has decided to pay the debt of the State society, amounting to $16,000. A strong effort was made to include all the district agricultural societies in a list of annual appropriations of $2 000 each, but this failed, as also did the proposition for annual aid to the State society.

West Side Irrigation.

The Senate and Assembly have agreed to each other's amendments to the West Side Irrigation bill, and the measure is now in the hands of the Governor. As the bill now stands, none but white laborers can be employed on the work, although the Senate at first objected to this clause. We have not been able as yet to secure the bill in amended form, but will do so as soon as possible, that our readers may discover fully what the enactment is.

The Centennial.

The Senate has passed a bill appropriating $25,000 to defay the expense of representing the State at the Centennial exposition. The money will be expended by the Centennial Commissioners.

The Phylloxera.

The Assembly Committee on Agriculture has reported favorably on the appropriation to destroy the phylloxera. The matter waits further action.

DEATH OF A FAMOUS STALLION.—Rysdick's famous stallion, "Hambletonian," died at Chester, N. Y., March 27th, aged about 28 years. He was the sire of the most noted and valuable trotting stock in the country.

PLOWING MATCH.—We received, too late for publication last week, an announcement that the Rio Vista plowing match would be held March 29th, 30th and 31st.

Harvest Scene.

The latest production of art, as applied to California agriculture, is an oil painting entitled "California Harvest," by Andrew P. Hill. The scene is on the peerless wheat farm of Dr. H. J. Glenn, in Colusa county. The artist aims to present truthfully the scene when the operation of harvesting is in full action. In the center of the picture stand the mammoth separator, "The Monitor" and the engine which drives it. Around it circle the headers and header wagons. In the foreground is the handsome turnout of the manager, and the overseer galloping up on horseback over the bright stubble. In the background there rise the Buttes, seen through that peculiar haze which is usual in the valley in which the scene is laid. The whole picture is novel as an art topic. In its subject matter it is peculiarly Californian and essentially agricultural—two points which will commend it to the attention of our readers. We advise none of them to visit the city without the pleasure of studying the picture. It is now on exhibition in the show window of Snow & May, No. 21 Kearny street.

The painting is one upon which the artist, Mr. Hill, may justly pride himself. He is an amateur and has produced this scene without art instruction. Doing so well in his first attempt, it is impossible to predict what triumph he may yet attain. He is an enthusiast in his work, and, we believe, has a bright future before him. In his "Harvest Scene" he displays a striking perception of art principles and a wonderful natural talent for elaboration. His drawing is excellent and his coloring effective. We trust that he may receive every encouragement to develop the art spirit which is in him.

The harvest scene was painted to order for Mr. George W. Hoag, who farms 10,000 acres of Dr. Glenn's land. Mr. Hoag's praise of a portrayal of a scene which he knows so well in reality, is a fine testimonial of the accuracy of the artist's work.

We have engaged Mr. Hill to prepare for the RURAL PRESS a reduced drawing of his painting, which we expect to engrave and present to our readers, with an account of Dr. Glenn's mammoth farming industry. We can thus promise our readers a most entertaining page in the near future.

TO PRODUCE NEW VARIETIES.—Solomon Jewett, of Vermont, sends us the following note concerning the way in which new fruit varieties may be produced. It may be new to some of our readers: In cases where the time of blossoming of the two varieties is near each other, so that they may be mutually impregnated, let shoots be raised from the kernels or seeds of fruit so impregnated by flouring the pistils of one from the stamens of the other variety, avoiding all other connection from any fecundating power—and again from the self-same source, and no other, while these shoots shall have blossomed; repeat the process by impregnation from the same tree, vine or plant alone, and you will obtain varieties partaking of the nature of both parental sources. To obtain a valuable variety or species be careful to select only the best of each kind for impregnation, as you would do for ingrafting on the stalk.

CORRESPONDENCE.

Botanical Excursions.

[By J. G. LEMMON.]

No. 1.—Pyramid Lake and Humboldt Desert.

[Concluded.]

Gathering a variety of strange plants amidst the sage brush and scoria of Pyramid lake valley, we prepared for the further journey in search of exceeding horrors by stopping at the house of Dr. Wood, the only white inhabitant of the north shore, to re-organize, obtain supplies of food, and get directions and instructions where to find and how to prepare for

Humboldt Desert.

Northesstward of Pyramid lake, separated only by a low ridge, and stretching awsy to the Humboldt mountains, is a great desolate plain, in the burning center of which is seen the work of evaporation so offensively illustrated in Pyramid valley carried to completion. The result is, a white, level, hard, dceply cracked bed of residual matter, extending 40 miles in a nearly circular shape. This is the sink of the Humboldt. The waters of this largest of the great basin rivers—increased ten-fold in winter—overcome the less evaporation of that season and flood the whole desert, moistening the conglomerate elements of the bed, to reek with pnngent, stifling gases the long summer after. No animate objects are seen in all its hordering plain for hundreds of miles, and few are found save only myriads of large hlsck mosquitos that rise out of tho low bushes, and withont a note of warning attack the intruder as if they expected but one meal in all their lives. This desert—a type of the beds of the evaporated lakes of the great basin—cannot be appreciated by merely gliding along its borders in the rail cars of the C. P., stopping only at the oases. One must be obliged to stagger blindly through the glare day after day, and camp upon its steaming floor at night.

We took our fill of Humboldt desert in two days and one night. That night was spent out on the rank smelling floor to rid ourselves of the mosquitos Seven million fonr thousand and ninety-eight (as Mark Twain would say), followed us ont, and not uutil after a battle of two hours with hushes did we trim off their bills, so as to be allowed to rest—but for a season only. The poor ponies, tethered to bushes on the shore, suffered such pain from the poison, evinced by constant neighing and rearing, then rolling in the alkali, that in mercy we led them out, tied them to our wagon wheels, and fought 9,473,608 solid feet of mosquitos, until becoming exhausted, we crowded into the wsgon, dropped the cnrtains, crept under five pairs of blankets, with our b'oots ou and a bake kettle over our heads.

The only way we could botanize the plain next day was for me to arm one hand with a bush, and continually whip my face, with the other hand grasp blindly for flowers, while Prof. Case stood over me with a wisp of bushes in each hand, with which ho lashed alternately my shonlders and his own. We thus secured a number of rare prizes, among them a fifth new *Astragalus*, which properly bears the name of *Astragalus Casei*,—Gray.

The White Monuments.

Through the glare and exhalations we gazed with shaded eyes out over the shimmering floor as over a sheet of iron raised to white heat. We knew that the old emigrant route crossed this torrible desert near, and from an eminence we could detect far in the distance and stretching across the waste that broad belt of whited skeletons that commemorate the toil, exposnre and death of so many animals and men in the early pioneer days. Let the California poet describe the appalling spectacle. I csnnot.

Who journeys o'er the desert now
Where sinks engulfed the Humboldt river,
Arrested in its sudden flow
Yet pouring in that sink forever,

Who journeys o'er that desert now
Shall see strange sights and ghastly,
For he shall trace awearied, slow,
Across this waste extended vasily,

A zone of bones that bleaching lie
Where fell the wearied beast o'er-driven,
And npward cast its dying eye
As tf in dumb appeal to heaven.

For lengthening miles on miles they lie—
These sad memoriats, grim and hoary,
And every whitentng heap we spy
Doth tell some way-worn pilgrim's story.

Hard by each skeleton there stand
The wheels it drew, or warped, or shrunken,
And in the drifted, yielding sand
The yoke or rusted chain lies sunken.

Nor marvel we if yonder peers,
From ont some scooped-out grave and shallow,
A human head, which fleshless leers
With look that doth the place unhallow.

Each annnal pilgrimage hath strewn
These monuments, unnamed, undated,
Till now, were bone but piled on bone
And thousand wrecks but congregated,

A pyramid would rise as vast
As one of those old tombs, Egpytian,
To tell of toil more great—long past,
And death—without their dim inscription!

Return to Pyramid Lake.

Returning by the same ronte to Pyramid lake, which looked quite beautiful now after the desert, Prof. Case amnsed himself with shooting pelicans from the rocks along the heach, while I drove along the dreary road, unenlivened now by the novelty of its flora, once seen. By practice my vision at a certain range has grown so keen that four rods off I can detect plants two inches high and distingnish their characters, hut I see nothing else. A hare or sage hen I seldom note, much less a gopher or owl. Perhaps this is why I have not seen a grizzly bear in all my travels. Case declares, however, that it is because of my inveterate whistling or singing, enough, he says, to frighten a grizzly a half mile away.

On this monotonous home trip along the shore of Pyramid lake for 30 miles, I only fonnd one plant not sceu before, hut that proved to be a very interesting new species of Dr. Gray's new genus, *Glossopetalon Nevadense*. It is a spinescent shrub of bright green hne and growing in one ravine only near the wster's edge.

The Boat Ride, and What Came of it.

Going into camp, as we thought, nesr the south end of the lake, one day at an early hour, seeing a skiff moored in a lagoon and being out of provisions the Professor proposed that we improvise a sail for the skiff and go over to the reservation—seemingly only a few miles—for supplies. I readily consented and picketing the ponies with long ropes on a patch of sslt grass with the lagoon accessible, I assisted in bundling equipments for a days' botanizing and hunting into the skiff, upon which Case had rigged a sail made of a blanket spread by a long stick lashed with baling rope to an oar for a mast. Another stick distending the lower corners of the square sail the Professor held in his hands, while with the other oar I guided the craft. Gayly we sped over the dark waves, driven by a fine breeze nearly astern, past Pelican rock, (phew, what a smell!) past promontory and cove, islet and sand bar, the wind freshening at sundown to a stiff breeze, driving our little skiff before tho white capped waves, faster and faster. Our black ponies and white covered wagon disappear, but the supposed patch of willows seems not a rod nearer. Passing at length a gorge in the mountain rim a gust of wind issuing from it steered our skiff around and drove us towards the roaring sea. A second gust wrenched the sail from Case's grasp and almost capsized the skiff. Screaming with delight he recovered tho sail, while with difficulty I brought the boat to the wind. I began to express fear of dsnger, which Case scouted as groundless, and on again we flew before the gale. Time after time the boat was nearly capsized and the sail yard got away from Case. Thoroughly alarmed I appealed to him to lower the sail. "I hsve weathered worse squalls than this," he replied cheerily, but his voice was nearly lost in the roar of the sea, its face now too furiously swept for waves, appesring a level sheet of foam. "Case!" I eried at last, "I would as leave go down here as anywhere, and with you as anyone, hnt think of the trouble it would give to learn our fate. Think of tho Odd Fellows. Think of our mothers!" He obeyed instantly. Wrenching ont the mast he threw the sail overhoard, and not a moment too soon. A squall laid our skiff on her side and drove the foam sheer across her length, but strangely enough we shipped but little water and our craft instantly righted. "You're right, Lemmon," said the sailor with emotion, as he joined his strength with mine, now at the oars to keep the skiff afloat, and head her shoreward. Only by the exercise of our utmost strength could we hold our position in the wind's eye. Squall after squall struck our little skiff and tossed it like a cockle shell to leeward. A half hour passed. Not a rod gained. We studied precision of stroke, pressed our oars deep into the brine and pulled for dear lifo. An hour. The shore but a few rods off at the first, seemed a few feet nearer! "Take coursge," cried Case, "we are gaining." Two hours of the most desperate rowing over I saw, and the gallant Case, jumping into the breakers, seized the skiff and drew it to lsnd!

Rest followed; rest the most refreshing and fullest enjoyed as we lay for five minutes outstretched upon the sand. Then came resuscitation and the taking of observations for whereabouts and condition, O, so thirsty, so hungry, so tired! Saved haply from a watery grave, but on a bleak shore, our wagon and the lagoon of drinkable water an unknown distance away, darkness closing down and the watch showing 8.30 by the fitful match. We resolved that we must pack ourselves with our things snd find the wagon where was water, three little mourning doves the Professor had bagged during the day and a roll of blankets. Dividing our things into two parcels we found that in our thoughtlessness, nearly all our wagon load had been put into that skiff. An enumeration of the hoavy articles, guns, equipments, game bags, flower presses, etc., would require a long paragraph. Staggering through the yielding sand, tangled often to falling by the low bushes, we toiled onward. Every few rods we were obliged to halt and take a rest. Night deepened to intense darkness ere the glad but husky voice of Case far in the advance announced the white wsgon in sight. O, what sweet water! Never was tastier meat than that raw mourning dove! never softer feathers than that wagon box!

Well, I have done some terrible marching in my day, have been driven by overpowering columns to wade to my knees night after night through the red clay mud of Georgia, and I have suffered for six months the starvation fare of Andersonville. But I was young then. It seems to me now that the row for life on Pyramid lake and the search for water and food that night was the very climax of toil and pain!

Your readers, dear RURAL, and we, have had enough of Pyramid lake and Humboldt desert. Brighter voices of a kindlier clime invite description, and time is short. Hastening the next day over the worst of roads, so rough that I had to hold the wagon upright with a long guy rope, upon which I pulled with all my strength as I walked along the bluff above, to the agency 28 miles, where we obtained a square meal, rested a half day, learned much concerning the Piutes—especially their superstitions and names of desert plants—visited the curious volcanic, tosd-stool-like columns in the vicinity, then hastened homeward via Wadsworth, Reno and Crystsl peak to Sierra Valley, a round trip of 420 miles in 15 days, our wagon piled to the peak with balcs of flowers, our faces brown as Indians, our eyes blood-shot, hut our minds indelibly impressed with very many exceedingly pleasant memories and one dark, startling, horrible night-mare—*the boat ride on Pyramid lake!*

Fresno County.

[Written for the PRESS by W. A. SANDERS.]

Central California Colony.

I have recently been on a visit to the "Central California Colony." The Superiutendent, Mr. Marks, well known in San Francisco as a former principal of Lincoln school, met me at Fresno, and in company with a nnmber of persons who were looking with a view to purchase, we made au examination of the entire tract. Passing southward from town two miles, we came to the end of the first avenue—Elm avenue; it is set with elm trees from 10 to 15 feet high, 30 feet apart; a row on each side. This avenue, when completed, will be four and one-half miles long, extending from the south side of the colony northward to the town of Fresno. Following down between these rows of elm trees, we come to the north line of the colony; their lands lie in the form of a parallelogram, three miles east and west and two miles north and south. On the north side is an avenue three miles long, set on each side with Monterey cypress. A drive of halt a mile to the westward along this evergreen alameda brings us to Fig avenue, two miles long, north and south, set on each side with thrifty growing trees of that most luscious of all figs, the White Ischia. But time and space will not permit me to give a detailed description of the colony. Suffice it to ssy that there are 26 miles of avenues running north and south; each one is two miles long, and is set with most valuable trees—one with Madeiras, one with almonds, one with cherries, one with chestnuts, one with pecans—but enough of details. Is there another place in the world where you can drive an entire long day along avennes lined with trees alternating "all that are beautiful to the sight and good for food?"

Colony Vineyards, Etc.

There will be 400 acres of vineyard set to raisin grapes this year. I inspected some of the work; 'tis being done in a most excellent manner. This was on the lands of Miss M. F. Anstin, formerly editress of the *California Teacher*, so I owe no apology for mentioning her name here—editorial names are publio property. Her vineyard is being set with Muscateles from the very superior raisin vines of that pioneer raisin culturist, R. B. Blowers, of Woodland.

A great many of our leading citizens have purchased lots and are improving them in the colony, with a view of making their homes there and sitting under their own "vine and fig tree." Among the number are our two leading newspaper men of the county—not of the *Review* that died,—but not, as Shakspeare said of Edward VI:

"Died—departed and left no sign,"

It has left its "sign" and that is all there is of it; while the verdict of the county is "snfficiently Reviewed." On one of the lots referred to above I saw a fine lot of large, thrifty orange trees "huld in" ready to be set, besides a great quantity of the finest selected trees, shrubs, plants and flowers that one could wish for to adorn a home.

The trees and vines are mostly from the very large stock of that reliable nurseryman, W. B. West, of Stockton. They are of such kinds as his long experience has found desirable for our valley climate in the great requisites of productiveness of fruit and rapid growth in those for shade and ornament,

There is some governmont land yet in our valley, but none that is first-class. Price of good land ranges from $5 to $20 per acre, according to distance from town.

Crops without irrigation, such as wheat, barley, rye, hay, etc., can be raised here as well as in any portion of the Sacramento valley.

Irrigated Crops,

Including all kinds of fruits, from the dolicate fruits of the tropics to the common fruits grown everywhere in the Pacific States, grow here to perfection. This matter was so fully discnssed in my "Report on Irrigation" to the State Grange at its last session, published in the RURAL PRESS at the time, and generally copied by the newspapers of the State, that I deem it necessary to give only this summary: This county possesses the largest tract of

"Irrigable"

Land in one body to be found anywhere in the State. I use the word irrigable, not found in Webster, but correct, nevertheless. The word irrigate comes from the Latin *in* and *rigo*, to water; these in the Latin form *irrigatus*, verb, and *irrigo*, noun; now by an admissible change of termination and the suffix, able, we have the word so necessary to our language, irrigable, meaning that which may or can be irrigated.

Cost of Water.

The Fresno canal and irrigatiou company, of which Captain A. Y. Easterby, of Napa, is President, M. J. Church of Fresno, Superintendent, and Mr. Sayre, corner of Montgomery and California streets, San Francisco, Secretary; this company has acquired a title to all the water of Kings river. They have a ditch six feet deep, 60 feet wide, and with sufficient fall to give a current of seven miles per hour. The ditch conveying this vast volume of water taps the river where it emerges from the mountains and starts out upon the great valley. It is in such position that the water can be easily conveyed from it to the valley. This company is selling "water rights," one foot of water each, sufficient to irrigate 160 acres of land, for from $250 to $500 each, with an additional yearly assessment of from $50 to $100 to keep the ditch in repair, to ensure a constant supply of water.

Fresno county is the

Best Place for Raisins.

1st. Because all the vineyards of our valley can be so arranged as to be flooded. And this, when practiced judiciously, is a sure cure for phylloxera and other ailments of grapevines.

2d. Because the summer heat here is sufficient, when fully utilized by properly constructed drying floors, not only to speedily cure the raisins, bnt to destroy all insects there may be in the grapes, thus insuring the raisins against injury or loss by insects, and relieving us from the expense of scalding, steaming or running them through an Alden dryer, or any other patent process, as they are compelled to do where summers are less hot than in our valley. In this respect we surpass every other part of the State.

3d. Grapes ripen earlier here than elsewhere, and the fall rains are lighter and not so early as in most other parts of the State, thus giving us the benefit of a greater amount of heat and greater dryuess of atmosphere than is found in other localities, thereby enabling us to cure raisins so as to produce a quantity that shall surpsss anything that can he produced under less favorable conditions of temperature and dryness of atmosphere.

4th. The railroad, affording easy and speedy transportation to the city, and the prospective canal, which I hope to see built, and which will give us very cheap freight to the sesboard by the time our vineyards shall produce more than a local supply and a supply for the mining region east of the mountains.

5th. The superiority of our land for grape production, and the ability to raise here oranges, lemons, limes, pineapples, and most other tropical fruits, in conjunction with our vineyards.

"What is the hest soil for grapes?" Any of the valley land that is not too sandy, is not alkaline, and has a depth of soil ranging from four feet to 10 or 15 feet above the hard-pan.

"Will almonds and alfalfa grow on such lands?" Yes, both; to perfection.

"What book can I get on raisin culture that will give all desired information?" There is none that I can recommend. The RURAL PRESS contains more information on the snbject than any other publication. I will answer any questions of general interest through its columns, or through the columns of the *Expositor*, but I am too busy to answer correspondents in sny other way, but trust I can satisfy questioners through the columns of a newspaper, by making one letter answer the questions of many.

Raisin Drying Floors.

We Americans make such improvements, mostly, as require to he replaced at least within a half century. Our buildings, by fire or natural decay, are thus saved from the old age of noisomeness or becoming haunts for vermin; or of standing in the way of our fast moving age of improvements. Bnt this short-lived work will not do for raisin drying floors. They must be permanent. Now is the time of year to make them.

How to Make Drying Floors.

Those who live near a natural supply of rock, of any kind, except cobble stones, have the best possible material of which to make them. Lay the stone from one and one-half to two feet thick, making a smooth surfaced floor on the top. Use cement or lime freely in laying the floor to make all adhere together, to be as much as possible like a single stone of the size and thickness of the entire floor. Then paint tho surface black, the more perfectly to absorb the rays of heat, and you have a raisin dryer that will do good service every year, and that will last a lifetime.

Those who cannot obtain a natural supply of stone can make nearly as good floors by digging or pulverizing the ground where the floors are to he made to a depth of 20 inches, then lay on this an inch in thickness of lime, then turn on the water and wet up the whole to the consistency of mortar; thoroughly mix tho lime and soil together, then pound or tramp or roll it down into as compact a condition as possible, then let it dry till June, during which month the surface of the floor should be covered with a layer of "dobies," from four to six inches thick, nicely laid in good lime mortar. The "dobies" should be made in the nsual manner, with the addition of one-tenth part of lime and sufficient pulverized charcoal to make them

perfectly black. Then the entire surface should be csrefully blscked over with psint, lampblsck or pulverized charcosl. Very little repair is reqnired except this painting of the surface annually in June to cause the floor the more perfectly to absorb and treasure up the heat throughout the long summer days, and hold it in readiness for sctive work when needed in autumn.

Rotten Raisins.

Great quantities of imperfectly cured raisins are now put upon the market every year. They are dried upon the loose earth, upon boards, cloth or paper, none of which absorb or retain heat, consequently snch floors do not assist in the work of curing the raisins. Finally, sfter the lapse of two or three times ae many days as are required to cure them on drying floors, after repeated tnrnings to expose all parts to the direct rays of the sun (nothing of the kind is necessary on the drying floors), they are taken up snd packed in boxes; some are uncured and mold or sour. Under the most favorable conditions the box will dry out, but the flavor of the entire lot has been spoiled by, perhsps, only a half a dozen grapes that were not perfectly cnred. Under less favorable conditions of atmosphere the whole box molds and decsys, becoming an entire loss, and s disgrace to the producer.

[Mr. Sanders informs us that his promised letter as printed above was delayed by an injury which befel him in being thrown from his buggy. Our resders will rejoice with us over Mr. Sanders' recovery and escape from severe harm. He is so valuable a man that we cannot afford to lose his aid in the development of his specialty.—Eds. Press.]

Break the Crust.

Editors Press:—On almost all soils not entirely shaded by growing crops a crust, more or less hard, is apt to form sfter such heavy rains as those that have lately fallen. If this crust is left unbroken on land sown with small grain thst is up, but not far enough advanced to shade the ground, unless more rain soon falls the young plant is seriously injured in its growth or entirely strsngled; moreover, the lsnd speedily dries ont.

I write this to recommend that either the roller or barrow should be psssed over such lsnd where the crop is in the condition described. The roller effectually breaks the crust and is, perhaps, the better implement, but the harrow drags out or covers up many weeds. If the harrow is used, it must not csrry a full complement of teeth. Many fsrmers carry out the sbove practice, but I think more neglect it. In a dry season it is especislly valuable. Crusts are the fsrmers' natural enemies; even pie-crust is unsatisfsctory until it is broken. So, brother farmers, never mind the fiction of its being unwholesome, but break the crust.

Monterey, Cal. E. Berwick.

Horticulture.

Cherry Culture, No. 6.

Gums.

Gum is a substance which belongs to all pitted fruits, more or less, but the cherry tree possesses a great quantity of this material, which sometimes works ssd havoc with its growth, causing the bark to blister and burst open, msking bad looking sores that are very hard to heal over. Why this is so is one of the things, as the little boy ssid to the miller, I do not know; but it is a fact, nevertheless, and there is no remedy thst I know of to prevent it. Indeed, I do not know that there is need of one, if one could be found, if care and wstchfulness are maintained in the orchard. There is a right place and a wrong place for gum to exude. If it comes out at the crotch or fork of the tree that is right and proper, but if it issues from smooth bark, either on the trunk or large branches, it is wrong and something is the matter. It shonld be looked after at once. The tree has either been bruised or punctured by some kind of insect. If let slone it will, in all probability, mske a bsd sore. If taken in time and the remedy applied no harm will be done. No remedy need be applied, to the fork, for you csnnot stop its running out if you were to try, for there is a cause at that point which we cannot remove. That cause I will explain in a little while.

Gum on Branches or Trunk.

The remedy to be applied where gum is found, either in the form of a blister or such as a sharp pointed stick would make, I use a compound of resin and gum shellac; two parts of resin and one of shellac, melted together, adding a small piece of tallow to the melted msss. Apply it warm with a small brush or a stick with rags tied on the end, msking what I call a "swab." If the wounded part is a blister take a sharp knife with a smooth edge, carefully remove the outer bark, for that is as deep as a blister goes, and you will see a small opening in the inner bark, from a quarter to half an inch long. When the blister is first cut the gum will run out olear as the white of an egg and about the ssme consistency. Have a wet rag with you to wipe the wound dry and clean. After this is done take your knife and pare the inner bsrk at the opening very thin, being careful not to go through to the wood. Put on a good cost of your mixture and that is the last of thst place. Now, if the wonnd is a puncture, the operation is about the ssme. Flatten the bark at the wounded part, being careful not to frscture or tear the outside bark and not go through to the wood. Put on your salve and the work is done. Go and see the trees occasionally.

Gum in the Crotch

Or fork of cherry trees. In this case we must let Nsture take her own way. As I said a while ago, there is a csuse existing here that we cannot remove; for the cherry tree is different from all other trees in its growth and hsbits. Some vsrieties are worse than others. In the forks of cherry trees there are two barks on the inside of the wood, consequently there is a space of wood from three to twelve inches long that does not unite. This space or length of wood not united varies according to the age of the tree. Hence comes the lisbility to split open. The issuing of gum from the fork depends upon the relative position the brsnch sustains to the trnnk of the tree. Thus in the accompanying

The Formation of Gum.

illustration you see that it is the branches that grow nearly perpendicnlsr with each other that gum the worst at the two barks, while those that grow more horizontally do not gum at all, because the wood is united, consequently there are not two barks, the wood being solid. It is the same with those on the right of the illustration.

The two barks are caused by the branches growing so close together, and by the expansion of the lsrge limbs in their growth the bark of both is forced in between the two woods, so that it is impossible for the wood to grow together. The sap is forced in between these two barks snd pursues a downward course until it arrives at the lower edge of the bark, where the wood is solid, snd is then forced out of its natural place between the barks and so finds its wsy out, and then we have it in the shape of gum in the fork of the tree. The cherry tree always issues its gum just under the bark, and not in the wood, as some people think.

Cleaning the Gum off

Is absolutely necesssry. In a great many cases the rain will wash off a good deal of it, but not sll clean. In places where two or three limbs come out close together it forms a kind of cup, which will hold the gum from one years' end to another, and in its soft stste every lesf, stick, cherry pits, dust and dirt will stick and hang, and sometimes I have seen them so foul that the stench could hardly be endured. By this collection also, a nest is made for all manner of insects, bugs snd worms, Another evil in letting the gum stay on is, if rain does not wash it off clesn, it runs down the trunk of the tree and makes the bark look bad, and if it is very thick on the bark when it dries it will contract and crack the bark crosswise, and is very injurious to the tree.

In Cleaning off

I use very simple and cheap machinery. Get some bamboo from China baskets, such as the Chinamen use to carry their goods in, cut them eight or 10 inches long, until you get a bunch about one inch in dismeter. Tie some twine about four inches from one end and two inches from the other. Take a case knife, one that is not very sharp, and split the long end down to the twine, until you have a coarse brush. I then take an old grain sack and open it and cut off strips about as wide as my two hands. I am now ready to go a gumming when the first rains come and the leaves are all off. The gum is soft now, and two or three brushes will throw the most of it out. Take a strip of the sack and draw it two or three times through the fork and it is nice and clesn snd the job is done.

Removi-g Large Limbs.

To remove limbs without having them gum, great care mnst be taken not to tear the bark, and it must be done st the right time. That is, from the time the buds are large and plump until the blossoms are open. But it should not be done later. Take a fine, sharp saw, cut the limb off at the base, not too close to the trunk, so as not to make a large sore, then take your knife and pare the surface nicely and smoothly, and give it a good coat of the compound which was used for blisters and it is finished and will heal over without a particle of gum oozing out.

Over and Over Again.

And now, brotber cherry growers, we have been through all the operatione belonging to the cherry orchard for one year. The ssme thing must be done next yesr if you wish to have your trees look healthy and thrifty and be a credit to yourself and the community in which you live. All these little things require work and attention. But it is not hard work. I have hsd men and fruit growers say to me that all these little things made too much work for them; they could not do them. But it is by attending to these little things that I mske my living. Take care of the cents and the dollsrs will tske care of themselves. It is my business, I love it and I delight in it. * *

Cherry Vale, San Jose Co., Mar. 13th, 1876.

Poultry Yard.

M. Eyre, Jr., Napa, Cal., Corresponding Editor of this Department.

Raising Turkeys.

Turkeys are very easily reared in Californis if hstched after the heavy rsins are over. April, May snd June are the best months. The largest gobblers I ever saw, over 40 pounds esch, were hatched in May. Those hatched in July and August seldom attsin as grest size. Bronze hens, especislly, are liable to be stunted if hstched sfter July, as they often commence laying in January and their growth is thus retarded so that they never come to weigh over 14 or 15 pounds. In our climate the young need very little care after the first few weeks. In the Esst they must be kept out of the rsin and wet grass, one of the maxims of poultry books being that the hen turkey "is a poor mother and does not prove successful, with her rosming habits, in rearing her young."

In our climate during the summer it is just the reverse; the young, at least when a month old, should be given to a turkey mother snd allowed to roam with her and penned only at night. If fed at night they soon learn to come home to their coops to roost. With good strong stock, especially if part Bronze, turkey rsising is very easy in Csliforuia, and slso very profitable. In the Sacramento and San Joaquin valleys, flocks of two to four thousand are raised by one owner. The young, which hatch in 27 to 29 days, require nothing but warmth until 48 hours old, and the mother should be shut in upon the nest for at least 36 hours after the last one is hatched. Their greatest enemies are dampness and lice. The same precautions ss described in the Press of February 26th should be taken to free the mother from lice, and each young turkey should be sparingly anointed on the hesd as recommended for chicks. I place the mother in a pen eight by eight, and eight feet high. After the young are two weeks old I let the mother out during the sunny part of the day, and soon after allow the door of the pen to remain open all the time. They should be fed soft food and fed often, the last feed being given very early in the evening. As to kind of food, when to give grain, etc., what I have written on "Care of Young Chickens" in the Press of February 26th, will apply equally as well to turkeys. They are very fond of card or cottsge cheese, or smear kase. I often give bran and corn mesl mixed with the liquor in which meal has been boiled. I give milk fresh and sweet for drink instead of water, being carefnl not to have it sour in the tins. They are foud of onions chopped fine. I mix black pepper with their food and twice a week a small quantity of alum wster. If they refuse food containing the alum water they can be induced to eat it by mixing with soup or liquor in which meat has been boiled.

The use of the ointment I have described, and of carbolic powder, will keep them free from lice, and so free, they can be easily reared. After they are somewhat grown, and especially while "shooting the red," they sometimes fall sick, standing around with a sleepy look and head drawn in, becoming weaker and thinner day by day. Alum water with the treatment described in the Press of February 12th will nearly always effect a cure. Have your turkeys roam during the day timo, but teach them to come home to roost. A flock of Bronze turkeys at six or seven weeks old is indeed a beautiful sight and worth a great deal of money too, even if sent to market, though the demand for them at high prices for breeding purposes has hitherto exceeded the supply, and such will be the case for many years to come.

The Dairy.

The Dairy Association.

Editors Press:—The proposition on your part to organize a Dairymens' Association cannot be too highly commended, and the prospect ie one thst should, and I donbt not will, meet with the hearty approvsl and esrnest snpport of every intelligent dsiryman in the State.

There is not an interest of equsl magnitude and importance to this State, that has met among us with less general and scientific study and research than has this mstter of "butter and cheese making;" nor is there one that more requires careful and conscientions investigation and interchange of views and practicsl experiences in order to be thoroughly understood and be brought to the pitch of perfection snd of profit.

I will further sdd that there is probably not a line of business in this city that calls for a stricter overhauling and scrutiny and complete reform than does that of the dairy produce commission merchsnt.

Among the many evils which the dairyman is at present obliged to put up with, and which, by means of snch a combination of interests as you advocste, might be almost, if not entirely, eradicated, I will here mention only the following, viz:

1. High priced, unrelisble and incompetent milkers.
2. Inadequate and defective means of transportation and gross carelessness in handling, while in transit.
3. Unreliable commission merchants, with the concomitants, dishonest returns of either weights or prices, or—of both.
4. Payments in silver coin.

I mention these matters in psrticulsr, because they affect good and bsd dairymen alike, and are such as cannot be remedied, *except* by the combined efforts of all.

The question of how to make choice butter and cheese is, of course, of great importance; but I hold that there is little object in making a "choice" or "gilt-edged" article, which on srrival at destination will, owing to Evil 2, rate only as "good," or perhaps still lower; or, even if does happen to get to market in prime condition, will, owing to Evils 3 nd 4, make the msnufacturer returns only which he should have been entitled to hsd his article been simply "good."

I am much mistaken if, to msny a commission merchsnt, it is not more profitable to sell *two* boxes of "gilt-edged" than *three* of good butter; snd why? Simply because it is a very easy matter to ascertain the *market price* of the "good," whilst the "gilt-edge" brings a *fancy* figure of from one to five cents per pound above it. Just how much extra that "gilt-edge" is worth, it ie impossible for the mannfacturer to compute, and, as the merchant knows his advantage, that dire temptation to "shave" is almost irresistible.

I notice, Messrs. Editors, that several leading dairymen have already approved of the project, I would therefore propose that we proceed to business immediately, and orgsnize a society and set the ball in motion. Wilfred Page.

The proposition for orgsnizing an association of dairymen proves itself worthy to be made when it elicits such frank and hearty responses from dairymen. Mr. Page points out festures of dairy marketing which demand most careful examination and prompt action among producers. The industry csnnot yield its fullest profit until these abuses are swept swsy. There ie one way in which dairymen can secure their rights in the matter of transporting and handling their product on the markot, and that is by availing themselves of the strength and prestige which are gsined by union. By coming together and discussing these matters fully snd freely, whatever is wrong will clearly appear, and a little carofnl inquiry and earnest sction will show the remedy. When once a class of producers feel that their interests are identicsl, and when demands are made openly and by nnited voice, any true reform can be sccomplished.

Let us hear from all dairymen on this important matter. It is now clearly sppearing that there is, indeed, a necessity for a dairymen's organization in this State.

Hardening Springs.—Get a piece of spring steel about the size of spring wanted; when forged and filed to tilt, make it warm red, immerse in spring water, dry the spring, then tie a piece of wire fast to the spring in any form, so as to hold it; dip in clean tallow or oil, put it on the fire until all the grease is burned off, and then swing round and round, as swift as you can, until cold.

Softening Files.—Cover them with oil and hold them over the fire until the oil blazes; as soon as the flame runs all over the file, plnnge it into the water. Or, put them into a moderato hot oven, for half an hour, if large files; but if small files, the first plan is the best.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

The Mission to Europe.

EDITORS PRESS:—Nothing was further from my thoughts, when we parted in San Francisco last November, than that within less than four months I would be in this great metropolis, eagerly reading the columns of my old friend, the RURAL PRESS, whose face is always welcome and cheering.

Then, as you know, I confidently expected to return to California in January, ready to perform such casual duties as might fall to the lot of your State Lecturer. I anticipated nothing more, I sought nothing more in our work.

But as the way was opened, most unexpectedly and agreeably, for a brief mission to Europe in the interests of the National Grange, after weighing all considerations, it seemed to me that perhaps I might serve our cause to better purpose here for a few months than in my home field of labor.

Nerved by this hope, here at last, safely landed and housed, is your old-time correspondent, after a smooth and pleasant voyage of 14 days to Hamburg on the Elbe, and three weeks in Berlin, looking after private business and collecting such facts as the brief time permitted, concerning the agricultural associations, institutions and interests of the German empire.

You and my many kind friends and fellow Patrons in California, can well understand how great is the pleasure, here among perfect strangers in a foreign country, to read in the RURAL the condition of home affairs, to see so many familiar names and initials, and, above all, to learn by your weekly record that

Our Grange Cause,

For which, you know, I have labored in every way to give the best service in my power, is so flourishing and active.

How encoursging to see that our many thousand true and devoted members continue to take so deep an interest in the life and privileges of our Subordinate Granges, which so surely form the only safe foundation of our continued success as a brotherhood.

From the copies of the RURAL found in the *Farmer* office here, I am led to suppose that my last letters to you have not been received, especially one written and mailed the day we sailed from New York, January 13th. In the latter I gave your readers a general idea of the

Objects of this Mission.

As that statement may never reach you, allow me to briefly sum up the duties now requiring my attention as Deputy and Commissioner of the National Grange.

The work is to confer with some of the leading co-operative associations of Great Britain, and study their principles for a specific object; to gather what facts I can concerning British agriculture and agricultural associations; to call the attention of British agriculturists and their friends more fully than heretofore to the Grange, its purposes, principles, workings and prospects; and to invite their cordial co-operation with us in our good work, now or hereafter, as may suit them best.

Should they believe that their many agricultural societies, as organized now, do not fully meet their wants, and should they desire to have Granges organized at present, as provided for by the

Excellent Report on Foreign Relations

Adopted at the last session of the National Grange and published in full in its Journal of Proceedings, that is also to be attended to.

It is hardly to be expected, however, that any Granges will be organized, at this time, in Great Britain. I find but very little is known here of our Granges and what good they have accomplished financially, and in so many other ways, for American farmers. True, the agricultural and horticultural papers, of which about a dozen are published in London alone, have aroused some interest in the Patrons of Husbandry and their doings. Yet so little information as to what Granges really are has been published by any portion of the British press, that all this foundation work has to be done before we can expect to hear of the organization of Granges on this side the Atlantic.

There is no doubt that

British Agricultural Associations

Have been more efficient in meeting the real wants of farmers than did our similar American societies and clubs before the introduction of Granges. Indeed, they appear to have so advanced agricultural and horticultural interests in the United Kingdom that farmers and gardeners here may conclude that they do not need our Order among them. Yet it is evident from the little I have learned here already, that the Grange will supply for them, as it most assuredly has for us, wants which no other order or association has ever supplied. I allude particularly to its thorough means for special and general co operation, and its unequaled social advantages. To these the agriculturists of Great Britain, and as I have just found out with certainty, those of Germany, have not yet begun to attain, as we have through the instrumentality of our Granges. But of this they will have to be convinced, before they will join the ranks of the Patrons of Husbandry.

As has been long known to us, American farmers have always been very cautious and slow to move, as is natural for the most truly conservative class of our people. The same is true to even a greater extent of British, as well as German agriculturists. They are truly, as an English farmer writes me, "adherents to use and worth." Whether more so than our own farmers it remains to be proved.

They will now have an opportunity to know what Granges are, and what they have done for us. They can judge for themselves whether they need them now or in the immediate future.

For my part, I shall strive to do all I can to have them understand clearly the nature and work of our noble and cherished Order, and shall at least hope to be instrumental in helping to lay the foundation for its future introduction, and for an efficient co-operation, as soon as practicable, between their co-operative associations and ours.

If they conclude to organize no Granges at present, and I confess I shall not be at all surprised should they so conclude, the undersigned may at least have the satisfaction of doing what it has fallen to his lot to do more than once in life's work, so that he has almost got used to it and now naturally expects it, viz.:

To Sow That Others May Reap.

For although no Granges may be organized in Europe this year, I can but believe that they will be in the near future.

Surely an agricultural brotherhood like ours, founded on the eternal principles of truth and justice; teaching, in such attractive ways, its many beautiful and valuable lessons, dealing so practically and efficiently with the questions of every day life, and having in it so much to meet the wants of human nature everywhere, is well calculated and no doubt destined to form a close bond of union between agriculturists of diverse nations.

What good reason is there why, with proper activity and management, an International Grange may not be formed of delegates from various nations?

Such an agricultural congress could meet annually or biennially, whichever experience would prove best, and might accomplish many things in the general interests of the world's agriculture, and would aid greatly in cementing the bonds of lasting peace and good will among nations. Though it may not be destined for those now devoting their lives to the growth, healthy training and permanence of this "farmers' movement," may our children live to see such

An International Grange.

It would be a fitting result, indeed, that the millions of earnest hearts and hands that are daily employed in the anxieties and labors of one of the most fundamental, the purest and most ennobling occupations of man, should contribute this much to the world's advancement, unity and peace.

May some who read this live to see so happy a consummation of our Grange work. But this letter is growing too long; yet, perhaps you will readily pardon me, on the plea that I have not of late trespassed much upon your columns. I enclose my official circular to British agriculturists, by which you see I am trying to interest them in the Grange. Yours truly and fraternally, J. W. A. WRIGHT.

London, March 1st, 1876.

The Grange Centennial Encampment.

We still continue to hear favorable reports in regard to the Grange Centennial encampment at Philadelphia. From the *Farmers' Friend* of a recent date, a Grange paper published at Mechanicsburg, Pa., not far from Philadelphia, we condense the following:

A plot of about 40 acres of ground has been secured for the term of one year at Elm station, about six miles west of the Centennial grounds, and directly upon the line of the Pennsylvania railroad. The tract, when secured, already contained a fine mansion house with 16 rooms, barn and out houses, contiguous to the station depot.

Upon this ground, and directly adjoining the station, a large number of temporary buildings are being erected, which will be divided up into small, well ventilated rooms, plainly but comfortably provided with beds and furniture. Dining rooms, offices and reading rooms will also be prepared in near proximity, where meals will be furnished on the European plan, each person paying for whatever he calls for. Lodgings may be obtained for from 50 cents to $1 per night, according to accommodation, and good meals at a cost of 50 cents each. Or visitors may take rooms and board themselves, for which suitable simple accommodations will be provided.

A Grange lecture hall will be provided, where stated meetings will be held, and where religious exercises will be conducted on the Sabbath. A good laundry establishment will be fitted up on the grounds. Barber shops, fruit and ice cream stands will also be provided, but no liquor will be allowed to be sold on the premises. One or more of the managers will be in constant attendance at the office of the encampment, which will be provided with fire and burglar proof safes, in which guests who desire to do so may deposit their valuables. Every effort will be made to secure the safety and comfort of guests. Steam cars will run from this station every hour or oftener, directly to the exhibition grounds—time occupied about 10 minutes; while the street cars from the city, though they will run oftener, will occupy from 40 to 50 minutes in making the trip.

The grounds and entertainment will not be strictly confined to members of the Order; but members may bring with them their families not members, or such friends as they may be willing to vouch for as persons of good moral character. Persons not members of the Order, but who may bring with them recommendations from National, State or Subordinate Granges, will also be admitted when such admissions do not keep away members of the Order.

Should the encampment be overcrowded at any time, individuals and Patrons holding stock in the encampment will have the preference, and next to them such members of the Order as may come especially recommended by their local or State Granges.

Can This Encampment be Made to Pay?

It is stated that these buildings will be erected in a perfectly safe and substantial manner; but at a cost not exceeding $50 for each room, with its furniture. A room with a double bed will be let for one dollar a night—two can occupy it for 50 cents each—and as the exhibition will be kept open 150 days, there is abundant margin for profit, even if a large portion of the rooms are unoccupied for a good portion of the time.

The income from rentals for dining and restaurant department, cigar stands, ice cream saloons, barber shops, etc, will more than pay for the running expenses of the establishment; while at the end of the season a very large amount will be realized from the sale of the buildings for lumber, as well as the beds, furniture, etc. This may be added to the other profits for liquidation of the ground lease and other incidental expenses. The enterprise, it is thought, can't possibly fail to realize a handsome profit for the investment.

The Patrons at and about Mechanicsburg, and especially the publishers of the *Farmers' Friend*, from which we collect the above facts, have been especially active in setting on foot and promoting the enterprise. That paper assures us that the enterprise has the special written endorsement of the officers of the National Grange, and of the Masters and Secretaries of the State Granges, so far as they have been able to become personally cognizant of the facts connected therewith.

The contracts up to the date of the paper before us covered the construction of 1,000 rooms, but the managers are in a position to extend their contracts to 3,000 rooms, should circumstances warrant the same. It is the intention, however, not to extend the outlay beyond the limits of the funds provided by the sale of stock. The article before us does not state the amount charged for shares, or give any definite plan of the organization of the building and operating company; but it does say that in case of overcrowding, stockholders will have a preference in accommodations, and that shares may be subscribed and paid for at the office of the *Farmers' Friend*, Mechanicsburg, Penna. From all accounts, however, we should infer that there will be no lack of money or room, and we presume that California Patrons will all be able to find a comfortable corner at the Centennial encampment, at reasonably low charges, and for which they will feel truly grateful for the thoughtful providence of their brother Patrons at and near the great central point toward which all eyes are turned, in this, our great Centennial year.

THE highest mission of the Patrons of Husbandry is to introduce a reformation in the educational system of the country. Our schools and colleges, as now conducted, seem designed only to prepare children for the learned professions—to put them in the way to become lawyers, doctors, clergymen, etc. The Grange idea of education, while it would secure all of the "higher education" that is compatible with individual circumstances, would seek to prepare the great mass of our young men for practical life—to become intelligent workers in the shop and manufactory, or improved tillers of the soil; and our young ladies for their future duties as housewives and matrons. There is a great work to be done in this direction, or the American people will fall lamentably behind in the great national race for superiority in which the leading nations of the earth are now engaged.

Election of Officers.

LAKEPORT GRANGE, No. 76, LAKEPORT, LAKE CO., CAL.—J. W. Boggs, M.; Theodore Deming, O.; L. Carson, L.; John Jones, S.; J. C. Thompson, A. S.; R. S. Johnson, C.; George Tucker, T.; J. W. Everett, Sec'y; Jonas Ingram, G. K.; Mrs. Theodore Deming, Ceres; Mrs. J. W. Boggs, Pomona; Miss Jennie Rippey, Flora; Miss Matilda Carson, L. A. S.

STAR VALLEY GRANGE, No. 12, STAR VALLEY, NEVADA.—W. W. Griswold, M.; C. J. Whitney, Sec'y.

Amendments to the Constitution of the N. G., Ratified.

The following amendments proposed at the Ninth Annual Session of the National Grange of the Patrons of Husbandry, at Louisville, Kentucky, November, 1875, have been ratified by vote of three-fourths of the State Granges, and the official proclamation of the Master of the National Grange to that effect has been received by Worthy Master Webster, of the California State Grange, and they are now in force:

1. Amend the preemble, under the head of "State Grange," by substituting the following for Section 1:

"Section 1. Fifth Degree. Pomona (Hope). Composed of the Masters and Past Masters of Subordinate Granges, and their wives who are Matrons; provided that Past Masters and their wives who are Matrons shall be honorary members eligible to office, but not entitled to vote; and provided that when the number of Subordinate Granges in any State becomes so great as to render it necessary, the State Grange may, in such manner as it may determine, reduce its representatives by providing for the election of a certain proportion of those entitled to membership in the State Grange from each county, and the members so chosen shall constitute the voting members of the State Grange."

3. Amend the Constitution, under the head of "Organization of State Granges," in the fourth line of page four, by striking out the words "not to exceed three."

4. Amend the preemble to the Constitution under the head "National Grange" by inserting between the words "Master" and "of," where they occur in the second line of said paragraph, the words "Past Masters and their wives," and also by adding at the close of said paragraph the words following, to wit: "Provided that only those members of the National Grange who are Masters of State Granges, and their wives who are Matrons, shall be entitled to vote therein; and provided further, that Past Masters and their wives who have taken the Degree of Pomona, and all former members of the National Grange, shall be honorary members of the National Grange, and eligible to office therein, but shall not be entitled to vote."

5. Amend Art. 1, Sec. 1, of the Constitution, by inserting the word "District" between the words "State" and "or," where they occur in the second line of said section.

6. Amend Art. 1, Sec. 2, of the Constitution by inserting between the words "practicable" and "in," where they occur in the fourth line of said section, the following words, to wit: "In the District Grange annually at such times as each District Grange may determine."

7. Amend Art. 1, Sec. 2, of the Constitution by striking out the word "three," where it occurs in the sixth line of said section, and inserting in lieu thereof the word "two."

10. Amend Art. 5 by adding the following after the word "refunded," in the seventh line of said article: "And no petition shall be received from a rejected applicant until six months shall have elapsed after such rejection."

13. Amend Art. 7, Sec. 3, of the Constitution by striking out the word "ten," where it occurs in the third line of said section, and inserting in lieu thereof the word "thirty."

14. Amend Art. 8, Sec. 7, of the Constitution by striking out the word "one," where it occurs in the first line of said section, and inserting in lieu thereof the word "two."

Amendments 2, 8, 9, 11 and 12 have not yet been announced as ratified, but may be hereafter.

Ladies in the Grange.

Our Eastern cotemporaries notice, in a commendatory manner, the fact that the ladies in California seem to take more interest in Grange matters than is generally done by their sex in the Eastern States. The *American Patron*, after remarking that about one-third of the delegates to the "county councils" (Pomona Granges) are ladies, adds: "That is as it should be. If they are members why not put them to work? They will soon become efficient and useful as well as ornamental." We also see frequent commendatory mention of the large proportion of ladies that are elected in this State to the offices of Secretary, Treasurer, Lecturer, etc. We are pleased to see that our brethren in the East look favorably upon our practice here in this regard, and can assure them that, in all instances, so far as our observation has reached, the ladies have ably sustained themselves in every position with which they have been entrusted. The ladies in California have ever been a power in the land, and nowhere have they better acquitted themselves than in the Grange.

From the Granges.

Placerville Grange.

W. Wiltse, Master of Placerville Grange, writes as follows to Worthy Secretary Adams: "Our Grange is prospering very well. We have taken a subscription and raised money sufficient to pay one-half toward the building in which we have our meetings, and we are now soliciting subscriptions for the purpose of raising money to put a stock of goods in the lower part of our building, and at present it looks as if we should be able to succeed."

Pomo Grange.

Pomo Grange, No. 216 has taken action asking each Grange of Patrons of Husbandry in Mendocino county to hold an open Grange meeting and invite the citizens who are not members of the Grange to take action with them in electing as many delegates as they may deem proper from each Grange and the citizens assembled, to represent them in a railroad convention to be held in Ukiah, Friday, April 14th, at 1 o'clock P. M., for the purpose of devising some plan to aid in the extension or construction of the North Pacific railroad from Cloverdale to Ukiah.

In Memoriam.

To the Members of West Grafton Grange, No. 89, P. of H.:

Your committee respectfully submit the following to the memory of our late departed sister, MRS. ANN HATCHER, wife of BRO. George Hatcher, Past Worthy Chaplain of this Grange for two years.

Sister HATCHER for the past ten years has had the care of three orphan children; she has acted the part of the good Samaritan, and has now gone to receive the reward of her labor. Surely if heaven is gained by works of charity, our sister will enjoy the brightest scenes of the celestial world. She leaves four small children.

WHEREAS, Our Divine Master in his all-wise Providence has seen fit to remove from our midst Sister HATCHER, it is therefore

Resolved, That in the death of Sister HATCHER we are reminded of the uncertainties of life and the certainty of death, which may overtake us at any moment.

Resolved, That we, as a band of brothers and sisters, extend our deepest sympathy to our afflicted brother and family.

Resolved, That these resolutions be ente ed on the minutes of this Grange, and a copy he sent to the RURAL PRESS for publication.—[Committee: J. W. Brown, S. M. Mapes.

JULIA BROWN, second daughter of Richard and Catherine Brown, lost her life by drowning in Rowdy creek, Smith River valley, on Tuesday, the 7th day of March, 1876, aged 17 years, 7 months and 26 days. She was a young lady of bright promise and more than ordinary talents. Her parents in their affliction have the heartfelt sympathy of all who knew her. She has been for three years a member of the Good Templars lodge in Smith River valley, and of the North Star Grange from the date of its organization. By both Orders her loss will be deeply felt, as the energy of her character, intelligence beyond her years, and the faithfulness and diligence with which she performed every duty which fell to her lot made her a member of no ordinary value, and one whose loss will be deeply felt and long remembered.—[J. D. Bailey, Master North Star Grange; Jas. Smith, Smith River Lodge, No. 417, I. O. G. T.

AGRICULTURAL NOTES.

California.

ALAMEDA.

EUCALYPTUS OILS.—The Eucalyptus manufacturing company, of Oakland, has filed articles of incorporation, ex-Governor Haight being one of the incorporators. The capital stock is $250,000. The purposes for which the corporation is formed are: Medicating the leaf and bark of the eucalyptus tree in all its various forms, and extracting the oil by means of distillation; medicating pure California brandy and wine and other alcoholic liquors; the making of paste and salves; otherwise powdering the leaf and bark in dry form, and the medicating eucalyptus baths. The trade mark is to be either the eucalyptus tree or leaf, or both.

WAREHOUSE BURNED.—We are informed by dispatch that a fire, Tuesday morning, totally destroyed T. J. Edmondson's large grain warehouse; insured for $5,000 in a foreign company. Anspacher Bros. lost 1,200 sacks of wheat; no insurance. Several farmers lose small lots of wheat and barley. About 30,000 grain bags, insurance unknown, were also burned. Supposed to be an act of incendiarism.

BUTTE.

LATE SEASON IN LUMBERING.—*Record*, Mar. 25: Owing to the unprecedented fall of snow in the mountains this winter, the lumbering mills will not be able to begin work for at least two months later than usual. The Butte flume and lumber company's mills opened last year on the 17th of March, and to-day there is about seven feet of snow about them. Mr. Allen, the superintendent, informs us that it will be impossible to get them running before the middle of May.

COLUSA.

CROPS ROTTING.—*Sun*, Mar. 25: We learn that there is quite a large area of wheat in the Mormon basin that has grown up so large as to be rotting near the roots. In some places it will ruin the crop, but much of it is again sprouting up, and will be all the better for the loss of the extra large growth of straw.

KERN.

GOING INTO HONEY.—*Courier*, Mar. 25: Messrs. Souther & Roper are making arraugements to go into bee culture on quite an extensive scale. Last year they tried it as an experiment, and the result was such as to induce them to engage in it more extensively.

LAKE.

THE LATEST FISH STORY.—*Bee*, Mar. 23: We learn from an influential Big valley farmer that considerable grain has been destroyed this winter by the fish. This may sound singular but nevertheless it is true. During the high water the fields were covered with fish, and all the grain that was submerged had to suffer.

CHANGE FOR LUMBERMEN.—There are six saw mills in Lake county, four of which are situated at the south end of the lake and two at the north side. Still the supply of lumber here for building purposes is not equal to the demand. It is said that the pineries of the county are of limited extent, yet we are told that there is a splendid forest of sugar pine beyond the north end of the lake which yet remains untouched. The utilization of this forest is an immediate necessity, and offers a paying investment for capital. We hope to note ere the end of this year the establishment of good lumber yards in the different towns of the county, and that people who want to build will not be kept back by the scarcity of material.

MARIN.

DRAWING THEIR OWN WOOD.—*Herald*, Mar. 23: The increase of rates by the North Pacific Coast railroad company, for transporting cord wood, will cause persons engaged in that business to put on teams and haul their wood to market in that manner. We don't know that consumers will suffer. They are now paying $9 and $9.75 a cord, whereas before the railroad was put in operation the price for the same quality of wood was $8 and $8.50. The wood cutters denounce the raise as a piece of imposition on the part of the "monopoly."

NEVADA.

DEMAND FOR GRAPE ROOTS.—*Tidings*, Mar. 25: Rooted grapevines of two or three varieties have been in demand here this year and are likely to be for some years to come. White Muscat of Alexandria, for raisins, Flame Tokay for market and keeping and Zinfindel and Riesling for wine were eagerly sought and brought three dollars per hundred for year old roots. All who have or can get cuttings of these and other choice varieties this spring would do well to put them in rows for rooting. When there are a hundred bearing vines where there is one now the owners will find a profit in grape culture.

RABBITS STARVED OUT.—The jack rabbits in Sierra valley have been starved out by the deep snow, and congregate in droves about the hay stacks, where the farmers kill them by hundreds.

SACRAMENTO.

DITCH EXTENSION.—Folsom *Telegraph*, Mar. 25: The Pilot Hill ditch is to be extended all the way down the divide between the North and South forks of the American, for mining and irrigating purposes.

SAN BENITO.

A PRACTICAL VIEW.—*Advance*, Mar. 25: Let us stop this having only one thing to sell. Let us, when we cannot get a living price for grain, feed it to hogs, and put a stop to the importation of Eastern bacon, ham, etc. Let us learn to cultivate less land, and do what we do well. Have more pasture, less expenses and better profits. Let us stop this abuse of credit, and confine ourselves to a strict course of economy for a few years till we get out of debt. Let us remember if we stop going in debt, we will soon get out of debt, and once out of debt, it will make but little difference whether interest is high or low.—*H. W. Cothran.*

SAN DIEGO.

THE HONEY SITUATION.—*World*, Mar. 19: Some few honey men perhaps realize the condition of the trade in that article, but most of them do not seem to. At present the indications are that a large crop, perhaps over 1,000,000 pounds, will be raised in this county alone, and a market for it is the desideratum. It is a problem not easily solved; but bee men ought to be at work at it regularly. The associational plan is perhaps the only practicable one and there are difficulties in the way of that plan, and some of them are quite serious, for the reason that middlemen will take up much of the profits of the trade that should go to the producer, unless great care is taken to prevent it. The market on this coast, even with the small crop of last year, is full, if not glutted; and producers here are receiving little or nothing from sales. Some parties, who are able to send their honey East, may do better; but all are not able to do so.

WOOL.—*Union*, Mar. 19: The spring clip of wool has already commenced to arrive. The first lot was received on Friday by W. W. Stewart & Co., from San Dieguito. It will come along now pretty fast, as the warm weather advances.

SAN LUIS OBISPO.

OPENING FOR A TANNERY.—*Tribune*, Mar. 25: The thousands of hides and pelts that are annually produced in San Luis Obispo are bought up by traders, shipped to San Francisco, and there again re-sold, re-shipped, and manufactured into leather. In the manufactured state it begins a similar course in its distribution to the consumers, who, perhaps, are largely the very men who produced the hides and pelts. By this time the price has been enhanced from five to ten fold, largely by commission and freight. There is a consumption of from $1,000 to $1,500 worth of leather per month in San Luis Obispo county. If we had a tannery right here in San Luis, all this money would be kept at home and go to build up other branches of industry, or enter into improvements that nothing but lack of capital prevents being pushed at once. But small capital is required to build up a tannery of sufficient capacity to supply all our home demand. We have the hides and pelts, and thousands of the best quality of bark convenient to town. All that we lack is a practical tanner, with a little capital and large energy. We invite to this field men of the above description.

SANTA BARBARA.

HORSE SALES.—*Press*, Mar. 25: A correspondent wants to know the price of California horses. The price varies from $7 a head to $70. If you are a wholesale buyer, you can purchase an entire cavallada in some sections at the first-named figure. Some of them are valuable, others otherwise. It is difficult to estimate the value of a mustang when the flipping of a two-bit coin decides its ownership. Prices are sometimes even lower than these quotations. A Santa Ynez valley man bought a famous stallion the other day, and paid for him in mustangs. How many do you suppose it required? Just 240. The constable of Lompoc sold 17 head of horses last summer, at auction, for two cents a head. A ranchman in the same valley pays three dollars a head for horses to feed to his hogs. Hoss-meat is low—hog high. Prices vary, however, and horses no better than those that were traded 240 for one have been known to sell for $100 apiece in many parts of California.

SANTA CRUZ.

CENTENNIAL SHOW.—*Sentinel*, March 25: R. E. Wood has secured space at the Centennial for displaying Santa Cruz by means of a "Santa Cruz Centennial table." Mr. Wood calls upon the people to furnish material in these words: "I have imposed upon myself the pleasant task of making landscape views of our most noted scenery, stereos, transparencies, etc., and collecting specimens of the different woods, particularly the most valuable, limestone, soil and all the natural products. The portrait photographers of the county are requested to make photographs, as near two-inch face as possible, of the prominent men and women, and if they choose, to make views also. The people in general are requested to call my attention to any specially beautiful or important views that I may have overlooked; to supply anything of interest that they may have to spare, and particularly a little of the already *counted wealth*, which generally is the last of all things to be spared. Some one, who can, is particularly requested to furnish designs in the beautiful sea moss. The county papers are expected to print full descriptions of all and everything pertaining to their locality, during the summer, and furnish copies to grace the Santa Cruz Centennial table."

SOLANO.

EDITORS PRESS:—Some of your many readers may be interested in hearing a few words about prospects for wheat crops in Solano county. A few days ago I had the pleasure of riding over a portion of this county between Fairfield, Denverton and Elmira. This portion of California, like all the rest, has been blessed with an abundance of rain, and now as the sun gives out its generous heat, the young growing wheat fairly shoots out of its mother earth. In talking with the farmers they all say, "If we do not have north winds"—but I have a good old aunt who says, "we should never cross a bridge until we get to it." I must say that to these farmers the prospect is very flattering, indeed. In the vicinity of Cannon's station the farmers are very busy plowing their land for the next year's crop. Near this place is the model farm of Captain Brooks, and a lovelier "spot of earth" than this may be hard to find. Here are spread out to view broad acres of wild flowers, blending their many beautiful colors, and then as the eye ranges from the snow-clad hills to this garden of Eden, the contrast is really astonishing and beautiful. Truly nature with lavish hands has showered her most precious gifts on this place.

> A home in these flowers; O, beautiful home!
> Who from this spot would be tempted to roam?
> The sun in the morning looks down with delight,
> And leaves this fair picture with sorrow at night.

March 24th, 1876. H. W. R.

SONOMA.

SHORT HORNS.—*Democrat*, March 25: Sylvester Scott, who resides eight miles west of Cloverdale, is a lover of fine stock as well as a famous bear hunter. He has 13 head of high bred Short Horns. He recently purchased of J. D. Carr a bull calf, 5th Duke of Monterey, red and white, calved January 10th, 1875. The pedigree of the Duke runs back through strains of the best Short Horn blood in the Eastern States to the 2d Duke of Oneida, sold for $20,000. Mr. Scott purchased also a heifer calf, Alice Gray, bred by T. F. Teaford, of Monroe county, Mo., of the famous Airdrie stock.

SUCCESSFUL EXPERIMENT.—C. F. Copeland owns a ranch of 90 acres of land lying on the western border of the corporation line of the city of Santa Rosa. He keeps a dairy of 20 cows. A week ago he commenced cutting green feed from a field of rye sowed just after the first rain this season, which stands now waist high. Mr. Copeland intends, as soon as he feeds the green crop off, to plow and plant this field in corn for a crop this summer. The rye field was top-dressed with stable manure after the ground was ready for seeding, and harrowed in with the grain. The result was a surprise to the experimenter. Wheat sowed on land adjoining, not manured, is not more than a foot high, while the rye is yielding at least eight tons of green feed to the acre from three and a half months' growth. In the face of this experiment it is vain to say that it does not pay in this county to manure land.

STANISLAUS.

SQUIRREL DISTRICTS.—*News*, March 24: By the proceedings of the special meeting of the Board of Supervisors, published in this issue of the *News*, it will be seen that the Board has divided the county into districts. It will be observed that they have taken school districts, requiring one or more to constitute the boundary of squirrel districts. We have been requested by individual members of the Board to suggest that land owners of the various districts send in to the regular May term of the Board the names of those they wish appointed as commissioners under the new law. This is a matter that should not be neglected by the farmers. It is true that no work can be done toward exterminating the squirrels until next December, yet the Board is required to perfect its arrangements for that purpose without delay. The practical execution of the provisions of the law depends, in a great measure, upon the commissioners appointed. The selection of these officers should not, therefore, be made one of personal friendship as much as for their thorough fitness and competency for the position. It is to be, in a great measure, a neighborhood affair, and no one should be recommended by the land owners of the district unless they have the most thorough confidence in their honesty, as well as competency for the position. It should be borne in mind that the commissioner receives but $3 per day while actually engaged, and that any sum over that amount comes from the pockets of the owners of land who fail to kill their own squirrels. Therefore, every one owning land in the district is personally interested.

GOOD GRAIN.—We are indebted to Deputy Sheriff McCoy for a couple of samples of fine grain, grown on the west side of the San Joaquin river. The first is a bundle of wheat pulled from an eight hundred acre field, owned by Mr. E. H. Robinson. The grain was of most excellent color, of strong stalk two and one-half feet in hight. The next is from a two-hundred acre barley field belonging to Mr. Benjamin Crow, and is a splendid sample. The grain from both fields were only average samples, showing us the magnificent prospect of the west side. Truly, it looks at present as if the farmers in that section would make up this season for the drouth of the past two years.

SUTTER.

PASTURING THE LEVEE.—*Banner*, March 23: We understand that Chris. Schmidt, of the Five-mile house, is so much in favor of pasturing the levee that he is fencing in that portion of it running through his farm, and intends to have stock enough on it always to keep it fed down close. This, we believe, is a step in the right direction, and as the Levee Commissioners appear to approve of it, we hope that all the farmers who own land adjacent to the levee will turn their stock on it and pasture it as much as possible. If this plan has all the merit that is claimed for it, it will be of incalculable benefit to the levee and a great saving to the district. There is nothing like trying, however, and we would like to see this thing fairly tested.

TULARE.

SHEEP SHEARING.—*Times*, March 25: The weather having now become settled, that branch of business has assumed an activity not heretofore experienced. We observe shearing companies traveling through our county making engagements, and they will doubtless continue so for two months, as we have nearly half a million of sheep to clip. This gives employment to several hundred idle men. The Indians seem to have formed into companies, who find employment, thus affording them a good livelihood. From the present outlook we may expect the largest spring clip we have ever been favored with, thus circulating a very large sum of money through our county. Sheep are fast becoming a favorite stock with our people, as they declare two dividends annually.

WOOL.—*Delta*, March 24; Sheep shearing is going on lively in different parts of the county and there will soon be a large circulation of silver. It is said that large sums are due the owners of sheep ranges in this county for pasturage, which will soon be paid off. Considerable sums of money, we hear, have been sent to this county to advance on purchases of wool.

YOLO.

RAISINS FOR THE CENTENNIAL.—*Record-Union*, March 18: R. B. Blowers, of Woodland, brought to the city yesterday a considerable quantity of raisins, in boxes, which he intends to exhibit at the Centennial, to which end the boxes are now receiving ornamentation at H. O. White's painting establishment, on K street. The raisins are sun-dried, from Muscatel grapes, and their quality is so superior as to fully warrant him in putting them on exhibition.

THE MOORE DITCH.—*Mail*, March 25: The high waters of Cache creek have broken the Moore ditch at a point about one mile west of the El Dorado ranch, and washed it away till within a few feet of the bulk-head near Riefenrath's ranch. The destruction is so complete and disastrous that our farmers will have to do without water the present season, and in fact it may be that the ditch will never again be put in order. To repair it would, we are told, involve an outlay of at least $3,000. It was fortunate that the bulk-head was saved, or rather that it was not reached by the water, for it appears that no effort was made to arrest the destruction from the wash. Had it been washed away our whole country would have been flooded by the overflow through the ditch, and many acres of wheat destroyed.

Oregon.

AGRICULTURAL STATISTICS.—*Willamette Farmer:* The following is compiled by Hon. S. F. Chadwick, Secretary of State, from official reports received at his office:

Acres of land under cultivation	595,629
Bushels of wheat raised	5,257,102
Bushels of oats raised	2,983,086
Bushels of barley raised	289,708
Bushels of rye raised	17,363
Tons of hay	161,453
Pounds of wool	1,863,002
Ounces of gold dust	12,805
Bushels of corn	96,728
Sheep	539,600
Hogs	107,620
Horses	75,966
Cattle	276,466
Pounds of tobacco	28,187
Bushels of potatoes	527,829
Bushels of apples	1,175,254
Feet of lumber	98,285,684
Barrels of salmon	4 818
Baskets of oysters	850
Mules	2,051
Pounds of cheese	108,894
Pounds of butter	1,555,298

Moss.

Strange tapestry, by Nature spun
On viewless looms, aloof from sun,
And spread through lonely nooks and grots
Where shadows reign and leafy rest,—
O, moss, of all your dwelling spots,
In which one are you loveliest?

Is it when near grim roots that coil
Their snaky black through humid soil?
Or when you wrap, in woodland glooms,
The great lone pine trunks, rotted red?
Or when you dim on sombre tombs,
The requiescats of the dead?

Or is it when your lot is cast
In some quaint garden of the past,
On some gray crumbled basin's brim,
With conchs that mildewed Tritons blow,
While yonder through the poplars prim,
Looms up the turreted chateau?

Nay, loveliest are you when time weaves
Your emerald films on low, dark eaves,
Above where pink portularoses peer,
And woodbines break in fragrant foam,
And children laugh,—and you can hear
The beatings of the heart of home.

—*Edgar Fawcett.*

Farm House Chat.

[Written for the PRESS by MARY MOUNTAIN.]

When we have had enough of good dinner or any other good thing, enthusiasm grows lazy and many unspoken words of praise must be taken for granted. So when our record vouched for a yard and a half of rain, we began to feel the languor of satiety and almost forgot to brag over our present 60 inches.

Then we were sadly taken down by the news that Shasta has 79, more or less, inches, and we must give up trying to stand at the head with our rain gauge. Every such winter does great damage in washing away our richest soil, and from hillside pastures the cream is rapidly skimmed. In broad fields that ought to gladden all eyes with smooth greenness, the great gaps widen and deepen year by year, where the winter floods have it all their own way and carry off the best of everything. Perhaps they may sometime be utilized in a system of thorough drainage, and the black chasms filled again, and the gang plow be driven straight across by a more careful race of farmers.

Yet they may not be so much more careful as more fortunate, for they are the "coming" race, who are being helped before they are born by all that is done and learned in this generation.

All must admit that there is much slack farming in California, and room for glorious improvement in the near future; but none should forget what up-hill work our farmers have had, not only in learning costly new lessons, but in unlearning the old, and finding through loss and failure that many a bit of venerable agricultural wisdom becomes the merest rubbish when brought to the test of new climates and conditions.

Farming in an Old Country,

Where buildings, fences, roads, churches, schools, and even railroads are not only built, but rebuilt and improved upon, and everybody's affairs are in smooth running order, is a very different thing from the hungry start and struggle with everything raw in a new country.

So, in order to be truly happy in the enjoyment of our share of Centennial glory, it may be only necessary to look back upon the first quarter century of civilized existence in New England or any other part of the republic. Right there, in Yankee land, what wasteful work went on with the grand old forests—germs of countless fortunes if they could have been spared and cherished by those remorseless Puritan wood cutters. But they had to live, and that being the prime fact in all new countries, we do but follow the old, old methods, and the ways of Mother Nature—wasting and destroying that new forms and fashions may enter in and finally possess the land.

And here is comfort for the croaker, that whatever we do or leave undone, the same grand law holds good forever; and nothing is really lost, nothing is wasted, but simply changed and molded anew.

So, if winter rains run away with our choicest bits of alluvial, we know exactly what will become of it, and that farmers of the year 3000 will raise the fanciest crops out there where the waters of the bay now rise and fall and moan of endless change.

Meanwhile, we have leisure to sit by glowing fires and pick choicest bits of wisdom from our books and papers; yes, pick them all to pieces—grind again even as wheat in the mill and retain or reject, according to the same fine law of compensation.

A noble illustration of that law in one of its departments is now going on in London. Probably all RURAL readers have heard of Geo. Peabody's bequest to the poor of that city, by which a large yearly income is devoted to the building of comfortable and convenient houses for them.

Heretofore we had heard that results were not so good as had been expected, but the last *Scientific American* (March 4th) has upon its first page a article upon

The Peabody Dwelling Houses

That will, I hope, be widely copied, not only for its immediate effect of cheerful encouragement, but that the general knowledge and appreciation of such a charity might stimulate other rich men to go and do likewise. I have said "charity," but I mean "compensation," or simple justice: foundation-work in the beautiful business of redeeming the world from poverty and vice.

Not that there is any direct intention of benefiting the idle and vicious classes; but as the good influence broadens it can hardly fail to reach them, and brighten with some glimmer of hope their wretched lives. At present the new homes are occupied by 10,000 honest workers, whose steady industry helps to build up the nation and make wealth possible. It is only just and fair that superfluous wealth should be used for their comfort and advancement; and a world calling itself Christian should blush with shame over the general neglect of this plain duty.

Although, in England, the need for help is far more pressing than here, still there is hardly a busy community in America that would not afford a fine field for a just or generous Peabody; and if such a one would like a mere modest hint of improvement on the English plan of building, he will only have to wait until I take time to finish my subject.

Will only say here, that we cannot expect to beat the London homes in the matter of financial management. The rent to each tenant is low, yet there is a yearly profit, that goes to swell the income of the building fund, and so "the increase of capacity is almost limitless." Think of that!

Newspaper Reading.

EDITORS PRESS:—I am a constant reader of your valuable paper, the RURAL PRESS, and I think it is the best paper for the practical California farmer that has ever been published. The valuable articles on horses, sheep, swine, bees, etc., are excellent; but my favorite page is the "Home Circle." How much better for parents to place in the hands of their children such reading matter as the PRESS contains, than for them to become habitual readers of such "trash" as the *New York Weekly*, *Wild Oats*, and *Days' Doings*. It is the natural inclination of the young to read something that is exciting and sensational, which is not only of no benefit but detrimental, both morally and intellectually. Reading such matter gradually forms a habit of irresolution, which leads on to other habits much worse. Not laying the crime all to the kind of literature which is read, but to that and its kindred evils and habits, which appear at first not vicious, but which lead to vice, many a fine heart has paid the penalty of them on the scaffold. Trifling as these habits may appear in the wavering steps of the young; as they grow older it forms changes to that of a hideous monster, which leads them to destruction with their eyes open. The idler, the spendthrift, the epicurean and the drunkard are among its victims. Perhaps in the latter its effects appear in the most hideous form. He knows that the goblet which he is about to drain is poison, yet he swallows it. He knows—for the example of thousands has painted it before him in glaring colors—that it will deaden all his faculties, take the strength from his limbs, and the happiness from his heart; oppress him with foul disease and hurry his progress to a dishonored grave—yet he drains the accursed cup, under a species of dreadfull spell, like that by which small creatures are said to approach and leap into the jaws of a fiendish serpent, whose glaring eyes have fascinated them.

How beautiful and manly is that person who, by a power of resolution, can pass unmoved through such dangers. Resolutions backed by noble habits lead to noble deeds. Good habits are formed as readily as bad ones; yet we see on every hand parents setting examples that, if followed by their children, will ruin them for this life, and lead them down to a dishonored grave, unprepared for an immortal world. Then let every one endeavor to speed the time when such examples and habits will be forever banished from our homes and firesides, and morality and Christianity shall more abound. W. C. M.

Marysville, Yuba Co., March, 1876.

SENSIBLY MADE CLOTHING. — In dressing children, why will mothers make the waistbands to button behind, instead of in front, where children three or four years old could button themselves in? It would save tired mothers so much labor, and at the same time teach the child to do a useful thing, and give it practice in using its nimble, yet often all clumsy thumbs and fingers. I should like to see some hints in the RURAL PRESS on the subject of comfort and economy in children's wearing apparel. UNCLE JOHN.

Our Duty to One Another.

EDITORS PRESS:—The foothill country of the great Sierras is enjoying a miniature deluge. The oldest inhabitant is at fault. Gulches are rivers; rivers are raging torrents; day and night, week in and week out, 'tis rain, mixed with hail and snow, and as I write the storm rages with unabated fury.

This Centennial year is surely a year of great things. Nature is taking the initiative, purifying the house so as to make it clean for the great celebration in July. Would that each heart would adopt a purifying process, entering upon the great duties of the hour, so as to present clean hands and pure hearts, as an offering for the blessings of self-government. Each and every man—and women too—should so order his walk and conversation as if the stability of our institutions rested upon his shoulders in life and conduct. My great hopes for the perpetuity of present blessings are based upon the moral and physical health and stability of the rural population. They surely constitute the salt for the earth, even if refinement has not attained that degree of eminence which is to be found in cities. But there is more genuine purity covered up by rough surroundings, less that requires to be hidden by tinsel and broadcloth, which claim our regard and esteem. A principle is involved which gives security for the stability of the best government our little planet presents.

The progress of the nation may also be traced to the progress of agriculture and the enlightenment of the rural population; without this element of industry, society would soon relapse into barbarism.

Art and science are only adjuncts of producing pursuits, supplying the necessary intelligence for making the different agricultural avocations successful. The Grange is a movement in the right direction, and introduced at the proper time. The agriculturist is receiving a personal education in scientific farming, social and governmental philosophy, assuming responsibilities in the more intricate details of business relationships, taking a higher stand in the power of judging right from wrong in the general concerns of life, mapping out—as it were—the great duties devolving upon the Granger in the near future as well as the present. Responsibilities thicken around him. The higher law appeals to his better nature, to so conduct his life that when the last messenger arrives he may be enabled to look within and find but few dark spots to mar the brightness of the future.

One of the duties devolving on the present, while nature is weeping its watery legacy, is to see that no hearthstone is darkened by want or privation; that no heart yields in despair which might be upheld by hands of cheer and maternal kindness. Bright and happy homes can be made brighter and happier still by acting the part of the good Samaritan. Doing good created, unbidden, a good to the donor. One of the grand uses of the Grange is the planting of this rare fraternal plant where grew only weeds and tares, watered by selfishness, and which will produce fruit to enrich the spiritual life of the husbandman. "Do good to the poor, helping the afflicted," cannot be too often presented. For such a winter as this is, is enough to make paupers of those hitherto considered in easy circumstances. Cities, too, feel the pressure as well as the country. There is work for the good Samaritan also in your midst. Many fires refuse to give out warmth for the want of fuel; many stomachs are empty for the bread which satisfieth. The voice of the oppressed poor crieth from the depths of despair for a crust from the rich man's table; too often unheeded is that little voice within, while rioting amidst luxuries which soon pale from the absence of duty towards the afflicted and poverty stricken. If the world would really court true happiness let the world try to secure happiness to others, thereby reaping a harvest of good to itself.

Messrs. Editors, this is a day adapted to moralizing. The wind howls and the rain pours down, and thought is attracted to the reflective organs for food. When we sit down to a well filled board and satisfy the cravings of appetite, we rise from the repast with a pleasant sense of satisfaction. But a cloud will shade the sunshine of the heart when we reflect that many of God's children may be hungered, without the means of having it satisfied. We sometimes make the observation after leaving satisfied at the table, "Thanks for that. Hope every man may have as good to appease appetite and satisfy nature." Is it not our duty to act as well as think, so we may feel the glow of satisfaction derived from kindly acts of duty? It is a spiritual feast to enjoy the happiness derived from making others happy. The eyes beaming thanks, the heart responding to the generous gift and fraternal greeting. Poor, indeed, is the man who is a stranger to such emotions, even though he may count his wealth by millions. It is our duty to be good citizens, good Grangers, good Samaritans to one another, and the outside world in general. If we adopt these rules for guidance in this Centennial year of great events our present condition will be improved, and our hopes of a happy eternity strengthened.

JOHN TAYLOR

Mount Pleasant, Tuolumne Co., March 7th.

Decorations for the Table.

Decorating the dinner table with flowers, fruit, and other ornaments, has become so common that it is most desirable for every housekeeper to acquire some degree of proficiency in the art. This part of the business of the house generally falls to the lot of the young ladies of the family, to whom a few hints on the subject may not come amiss. Of course, nothing is so pretty for table decoration as flowers or leaves, and they need not be so very expensive as might be imagined, especially to those living in the country. Even in cities a very pretty and attractive display of flowers may be made at a very small expense. A rustic basket, arranged with ferns, for the middle of the table, is highly effective; an ordinary sized basket, with a handle and sides which turn over, is best; a tin filled with wet sand should be placed inside, and ferns and grasses of all sizes arranged tastefully, with some ivy around the handle, will complete a very pretty ornament. If there is a slender glass center-piece to be had it will look very pretty in summer time, arranged with currants and green leaves twined round the stem. Round and low baskets, entirely covered with moss and piled up with fruit, have an excellent effect. Then, in autumn, nothing is lovelier than a selection of our various tinted leaves, mixed with fruit. Smilax should also never be forgotten by those who can afford it, as it twines so very gracefully about glass or silver. Large blackberries, in a pretty basket, are very nice for an every-day dinner table in summer; the basket should be of straw, glass, or silver, to make a pretty contrast. When the young housekeeper has tried all or nearly all these devices for making her table look attractive, she will find by practice that many other ways will suggest themselves to her mind, and that the time devoted to the cultivation of this graceful little art will not be thrown away.

THE MAN OF HONOR.—What a glorious title that is! Who would not rather have it than any that kings can bestow? It is worth all the gold and silver in the earth. He who merits it wears a jewel within his soul, and needs none upon his bosom. His word is good; and if there was no law in the land, he might be just as safely dealt with. To take unfair advantage is not in him; to quibble and guard his speech, so that he says something which he does not mean, even while they never can prove that it is so, would be impossible to his frank nature, His speeches are never riddles. He looks you in the eye and says straight out what he has to say, without mental reservation, and he does unto others what he would have others do unto him. It is not only in business that he may show his right to a glorious title. Who ever heard him betray the faults and follies of his friends, or speak slightingly of his near kindred? The man of honor is always a good son and a good brother, and when the time comes makes an excellent husband, making the vow to love and cherish and protect with a perfect comprehension of its holiness; he never breaks it. What woman need fear to obey a man of honor? Heaven be thanked that, amid the villains and tricksters of this world, there are many such men left, loved and respected by all who know them.—*Exchange.*

A SELL, NOT A SALE.—Amiable shop keepers deserve to be canonized. Here is an illustration of the trials to which they are subjected. One midsummer day, when Æolus slept, and the thermometer stood in the nineties, a lady entered a store not a thousand miles off, and inquired for parasols. The obliging proprietor spread out before her samples of a large and varied stock. "Have you any of this shade a size larger?" said the lady. The size larger was produced. "I think on the whole I prefer the size smaller." The size smaller was presented. "Have you any of this size a lighter shade of blue?" The required shade was brought out. "Have'nt you any of this kind, with a crooked handle?" The shade with the crooked handle appeared. "Have you any with the crooked handle not quite so heavy?" said the lady, and so continued her inquiries for every conceivable size, shape and weight possible in the line of parasols. After nearly an hour had thus been consumed the fair shopper gathered up her handkerchief and gloves, and moved for the door. "Can't I sell you a parasol?" inquired the exhausted proprietor. "O dear, no," replied the lady, "I was merely inquiring the prices. I am going into mourning myself, and have one for sale."—*New Bedford Mercury.*

A PLEASANT KITCHEN.—Considering that so many women of the middle classes are obliged to pass a great portion of their time in the kitchen, why not make it an attractive apartment, rather than stow it away in the basement, or in some dark corner of the house, as is now too frequently done? Most houses display pleasant sitting-rooms; but if we judge of the conveniences and general pleasantness of the kitchen by the rooms in the front of the house, we find, in many instances, we utterly fail in our conjectures. To make a little show in company-rooms, how many actual kitchen comforts are denied in many households! It is surely better to begin our house furnishing at the kitchen, and work toward the front as we are able. Let the kitchen closet be well stocked, even though the parlor suffers a little. Surely the health of the household, and the comfort of the women folks should be placed above every other consideration.—*Ohio Farmer*

"Those Old Folks."

"I don't see why we should make our cells the same way as they have been made till now," said a young queen bee to the crowd around her. "Those old folks will have them with six sides. And why, pray? Let us try a new plan; let us have them round. The old folks think they know so much!"

"Yes, yes!" cried the bees with one voice; for they had just been put into a new hive, and could do as they liked. "Those old folks! Because their way is an old way, they think it must be the best. We will let them see what young folks can do. We will teach them."

So they tried round cells. But they soon found it was a great waste of room and of wax to make them. Then they tried square, but found the walls would not bear the weight when the cells were full. Then they tried two or three shapes at the same time, and made them fit as they could; but that gave them more work and was of no use.

Time went on all the same, and their heads were so full of their own plans, and of scorn for those "old folks," and they had tried so many odd shapes, that at last no one knew what the old shape had been.

At last, when they had tried all the shapes they could, and none of them had proved good, a young bee, one day, cried out, "Let us try cells with six sides!"

"Six sides! Ah, yes!" said the queen, "that is a bright thought."

So they pulled down the old cells, and built them up with six sides, and these they found, to their joy, just right.

"There," cried they, "See what we have found out! This is the best way that could be. What would those old folks say if they could see our new plan! Ah! it takes a young brain to find out things."

And so those young bees went on jeering at the old folks. Yet the cells of six sides was not a new plan at all, but just the one that the old folks have always used, and had known to be the best.—*Author of Dick and I.*

Silent Men.—Washington never made a speech. In the zenith of his fame he once attempted it, failed, and gave it up confused and abashed. In framing the Constitution of the United States the labor was almost wholly performed in committee of the whole, of which George Washington was the chairman; yet he made but two speeches during the convention, which were a very few words each. The convention, however, acknowledged the master spirit, and historians affirm that, had it not been for his personal popularity, and the 30 words of his first speech, pronouncing it the best that could be united upon, the Constitution would have been rejected by the people. Thomas Jefferson never made a speech. He couldn't do it. Napoleon, whose executive ability was almost without a parallel, said that his greatest trouble was in finding men of deeds rather than words. When asked how he maintained his influence over his superiors in age and experience, when commander-in-chief of the army in Italy, he said, "by reserve." The greatness of man is not measured by the length of his speeches and their number.

A Cause of Failure in Life.—One great cause of failure is that there are not enough fools in the world. Yon lazy hireling fails, loses his place, because his employer is not a fool. Generals have failed because the opposing generals were not fools; lawyers, because there were not enough fools to go to law; and publishers, because there were no fools to subscribe for a small trifling paper, when a larger and better one could be had for the same money. There is an artist who has not succeeded for the reason that those able to employ him were not rich fools, but competent judges of works of art. Many an aspiring author has failed because there were no fools to buy and read his senseless productions; while poets have been kept out of the temple of fame because there were no fools to go into raptures over poems which would not raise a man's thoughts higher than a child's nonsense.—*Phrenological Journal.*

Childhood's Lessons.—Education does not commence with the alphabet. It begins with a mother's look, with a father's nod of approbation, or his sign of reproof; with a sister's gentle pressure of the hand, or a brother's noble act of forbearance; with a handful of flowers in green and daisy meadows; with a bird's nest admired but not touched; with pleasant walks in shady lanes; and with thoughts directed, in sweet and kindly tones and words, to nature, to beauty, to acts of benevolence, to deeds of virtue, and to the source of all good—to God himself!—*Blackwood.*

At a collection made at a charity fair, a lady offered the plate to a rich man who was well known for his stinginess. "I have nothing," was the curt reply. "Then take something, sir," said the lady, "You know I am begging for the poor."

Remarkable and Significant Coincidence. During the week ending January 1st there were 2,494 births in London, and, what very rarely happens, the number of boys and girls was exactly equal, there being 1,247 of each.

The most recent case of absence of mind is that of an editor who lately copied from a hostile paper one of his own articles, and headed it, "Wretched attempt at wit."

A California Street "Bull."

Young Folks' Column.

A Wish.

[Written for the Rural's Young Folks' Column by Belle W. Cooke.]

Little robin,
Sitting there
In the hemlock shade;
The boughs bend down
And touch your crown,
But you are not afraid.

Winds may whistle,
Piping loud,
Tossing shrub and flower;
You do not mind
A puff of wind,
Within your mimic bower.

Little hummer,
Darting there
'Mid the blossoms red;
Why, don't you fear,
You little dear,
That you will bump your head?

Laughing pansies,
Staring up,
Shake their heads at you;
You can defy
The daisy's eye,
And race the garden through.

Little darlings,
I love you
Better than the flowers
Or winds can love,
But if I move—
You rush, like wind-blown showers.

You would never
Fear me thus,
If you only knew—
I wish some bird
Would make a word
That I could say to you.

Salem, Oregon, March 22d, 1876.

Queer Little Homes.

A wren is a pert-looking little bird in a little brown coat—a kind of Quaker bird that does not believe in gay colors.

The baby wrens are never dressed up, either; you wouldn't get them to wear a string of blue or yellow beads around their necks, such as you wear, my dears, you and your dollies, for anything.

They seem to be satisfied with their little plain feathers; but one good thing about them is, that the older they grow the better they look.

Wouldn't it be a comfort, little Sue or Maud or Bessie, if your pretty blue dress should grow prettier all the time, instead of wearing out every day as fast as it can?

If you didn't care about it, you jolly little things, your mammas would, that's certain.

But I must tell you about that little Quakerish bird. It generally makes a cosy little nest in a tree; but over 100 years ago some little wrens made their nests in very queer places.

At that time there lived a very lovely lady, whom everybody delighted to know and love, and her house was in the country. There were so many trees on the place that the birds were singing there all day long, and this kind lady loved the little birds so much that she would not have any of them injured.

They seemed to know their good friend, for they went to work and made their nests inside of her porch, which was covered with vines.

Oh, how they chirped when she and her friends were taking their tea in the warm summer afternoons!

Sometimes while this cosy tea-drinking was going on, the little mother birds seemed to be reminded that their children were hungry; so they would fly back and forth with nice little fat worms in their bills, to make a good hearty supper for the baby wrens.

Well, these nests around the porch and in the trees were not all they had, by any means; for the mistress, as she was called, was so kind to the people around her, as well as to the birds, that it taught them to be kind too; and they fixed up some very queer things for the wrens to build their nests in.

Sometimes it was a horse's head, and sometimes the crown of an old hat.

The poor horse had no use for his head, of course, for it was after his death, when his head looked like nothing but a big white bone, and the birdies went in and out through the opening, perfectly at home there, and made their little nests inside, instead of on the boughs of the trees.

This house of theirs was fastened on the fence in some way.

They enjoyed the crowns of old hats equally well, the servants nailing every one they could find on the outside of the kitchen, and then making a little round hole for a doorway, and in all these little houses the wrens felt so safe that they never bolted up at night.—*Churchman.*

Good Health.

Regulating the Bowels.

It is best that the bowels should act every morning after breakfast; therefore, quietly remain in the house and promptly attend to the first inclination. If the time passes do not eat an atom until they do act; at least not until breakfast the next day, and even then do not take anything except a single cup of weak coffee or tea and some bread and butter, or dry toast, or ship biscuit.

Meanwhile arrange to walk or work moderately for an hour or two each forenoon and afternoon, to the extent of keeping up a moisture on the skin, drinking as freely as desired as much cold water as will satisfy the thirst, taking special pains as soon as the exercise is over to go to a good fire or very warm room in winter, or, if in summer, to a place entirely sheltered from any draft of air, so as to cool off very slowly indeed and thus avoid taking cold or feeling a "soreness" all over next day.

Remember that without a regular daily healthful action of the bowels it is impossible to maintain health or to regain it if lost. The coarser the food the more freely will the bowels act, such as corn (Indian) bread eaten hot, hominy, wheaten grits, bread made from coarse flour, or "shorts," graham bread, boiled turnips, or stirabout, or grapes, or dried figs, or stewed tamarinds. A handful or two of raw or boiled chestnuts eaten during the day; a tablespoonful, more or less, thrice a day of white mustard seed swallowed whole, in water or otherwise; eating freely of parched corn; taking on rising a tumblerful of cream which has been allowed to stand until it has thickened, whether sweet or sour, are means which are sometimes successful in keeping the bowels acting freely once a day, without the necessity of taking medicine. When one fails to keep up a good effect, try another, in the hope that when the bowels have got into a habit of regular action it may be kept up by the judicious employment of such daily food as observation may show is best adapted to the object. The habitual use of pills, or drops, or any kind of medicine whatever, for the regulation of the bowels, is a sure means of ultimately undermining the health, in almost all cases laying the foundation for some of the most distressing of chronic maladies. Hence, all the pains possible should be taken to keep them regulated by natural agencies, such as the coarse foods and exercises above named, or stewed prunes, or a glass of water on rising, into which has been stirred a teaspoonful of salt or a heaping tablespoonful of corn meal. Reliance on injections is disastrous eventually.

If the bowels act more than twice a day live for a short time on boiled rice, farina, starch or boiled milk. In more aggravated cases keep as quiet as possible on a bed, take nothing but rice, parched brown like coffee, then boiled and eaten in the usual way; meanwhile drink nothing whatever, but eat to your fullest desire bits of ice swallowed nearly whole, or swallow ice cream before entirely melted in the mouth; if necessary wear a bandage of thick woolen flannel, a foot or more broad, bound tightly round the abdomen; this is especially necessary if the patient has to be on his feet much. All locomotion should be avoided when the bowels are thin, watery or weakening.—*Hall's Journal of Health.*

Beds and Bedrooms.

Never use anything but light blankets as a covering for the sick. The heavy, impervious cotton counterpane is bad, for the reason that it keeps in the exhalations from the pores of the sick person, while the blanket allows them to pass through. Weak persons are invariably distressed by a great weight of bed clothes, which often prevent their getting any sound sleep whatever. It is better to sleep in a cool room and dress in one that is well warmed, than the opposite. If it is necessary to heat the bedroom, let it be by means of an open grate fire, rather than by a register or flue.

In view of the fact that most people pass one-third of the 24 hours in bed, the importance of having only the best bedding needs no argument. There is no wisdom, therefore, in buying cheap or second-class articles for the sleeping room, but true prudence directs to get the very best bedding that your means will command; a first-class hair mattrass will outlast two of inferior quality. The same difference will also be found in respect to feathers, and with the latter as with hair, the best is always cheapest. Too many young housekeepers neglect to follow this rule, and pursue a penny-wise and pound-foolish policy, when they might just as well have adopted the opposite practice.

Scarlet Fever.—In this disease the parent and the school teacher are often concerned to know how long a time must elapse before it is safe to admit the convalescent children to mingle with other children. And the answer is, that for a month, at least, the body of a scarlet fever patient is casting off scales from the skin, and from the nose, throat, bowels and kidneys discharges which are poisonous and convey the disease. The chief danger, however, arises from the skin, as this is the main outlet for the blood poison to escape; hence every scale it throws off can carry the infection.

Domestic Economy.

Cooking Carrots.

It is a notorious fact, says the Boston *Journal of Chemistry*, that we Yankees, like our English cousins, are lamentably unskillful in cooking vegetables, which the French serve up in such an endless variety of delicious forms. In the country, where fresh vegetables can be had so easily, they are even worse treated than in the city. In fact, they are usually cooked for the family just as they are for the cattle and the pigs. There is no more thought in the one case than in the other of making them savory as well as wholesome. We have before given some excellent foreign recipes for cooking potatoes, which with us are almost invariably boiled or fried, and abominably in either case. We now select from the London *Garden* some hints for cooking carrots, which the average Yankee housewife never thinks of serving in any other way than "plain boiled." The contributor has tested all these, and vouches for their merit:—

Carrot Soup.—Take one and a half pounds of carrots which have been first brushed very clean, then boiled, until tender, in slightly salted water; mash them to a smooth paste, or rub them through a sieve; mix the paste with two quarts of boiling soup (strong beef broth will do); season this with pepper and salt, and add, before being finally boiled up, a small lump of sugar and a piece of butter. Serve with a dish of bread cut into small dice and fried in butter.

Carottes au Beurre.—Boil sufficient carrots for a dish until they are quite tender; drain them well, and whilst this is being done, dissolve from two to three ounces of butter in a saucepan, and strew in some minced parsley, some salt, and white pepper or cayenne; then add the carrots, and toss them very gently until they are covered with the sauce, which should not be allowed to boil. Cold carrots may be rewarmed in this manner.

Stewed Carrots.—Half boil a half dozen large carrots without cutting them; then slice them into a stewpan; put in enough good stock to nearly cover them, with pepper and salt to taste. Stew them till tender; then mix in a separate vessel half a pint of cream and a tablespoonful of flour, and add to the carrots with one ounce of butter. Boil up and serve. Small young carrots may be dressed in the same manner, and will, of course, require less time to cook them.

Carottes a la Maitre d'Hotel.—This is a genuine French recipe. Scrape twenty small young carrots and wipe them, but do not wash them. Put them into a pan with six ounces of fresh butter; cover the pan and toss the carrots over the fire from time to time. After a quarter of an hour add salt and pepper, a chopped onion and parsley. Cover the pan and gently toss it again from time to time, until the carrots are tender. If you use large carrots, cut them into slices and boil them in water until they are nearly done. Drain and finish them as above.

Carottes a la Poulette.—Take some young carrots; scrape and wipe them carefully. Put them in a pan over a moderate fire, with six ounces of butter and a tablespoonful of flour; toss them repeatedly, and take care the flour does not become brown. Pour a tumblerful of milk into the pan, cover it and let the carrots simmer slowly until they are done. Then take the pan from the fire, and pour into it two yolks of eggs, mixed with a tablespoonful of good cream, and a little pepper and salt; warm these ingredients, taking care not to let them boil, and serve.

Carottes au Jambon.—Put into a pan six ounces of butter and a tablespoonful of flour; simmer these over a quick fire, until they become slightly brown. Add a gill of boiling water, then six ounces of raw ham cut into small dice, a little salt and pepper, a bay leaf, a small bunch of thyme and parsley, a large onion, and six large carrots cut into slices the size of a half crown. Cover the pan, and let the carrots boil until they are done. Then take out the seasoning, and serve. This recipe also answers well for turnips.

Split Pea Soup.—Take any bones of roast meat, lay them on a clean meat board, pound and break them, (a small hatchet carefully wiped clean is very good for this purpose). Put the bones and any trimmings of cold meat into a soup kettle or a large saucepan, cover well with cold water, set it on the back of the stove, cover it closely. When it first bubbles, skim it well, cover it, and let it simmer slowly four hours. If necessary to prevent it from boiling hard, set a tin plate on a brick under the saucepan. At the end of four hours take the soup from the fire, pour off the liquor through a strainer or colander into a shallow pan, let it become cold, then remove every particle of fat from the surface, and strain the soup through a cloth. An hour before it is wanted, put it on the stove to heat. Allow for three pints of stock, a large coffee cup full of split peas, which should be soaked if very old. Pour off those which rise to the top, put the others on the stove to boil for two or three hours, until they are perfectly soft. Then rub them through a colander, and when the stock is boiling, add the peas, and a small piece of butter, and pepper and salt. This soup is good and nourishing, besides being very economical. Excellent broth and soup can be made of bones left from roast meat of any kind, and they should be saved for the purpose.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week.	1 month.	3 months.	1 year
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... .. 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, April 1, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The Brighton Grape; A Common Necessity; Agriculture at the Capital; Harvest Scene, 209. The Week; The Centennial; The Growing Crops; Wheat Growing; Cost and Profit in Wheat; What are We Doing in Flax, 216. Home Manufactures- The Sweepstake Plow Company; California Fruit Dryer; A New Textile; Our Reporter Abroad, 217. Patents and Inventions, 220.

ILLUSTRATIONS.—The Brighton Grape, 209. California Fruit Dryer, 217.

CORRESPONDENCE. — Botanical Excursions; Fresno County; Break the Crust, 210-11.

HORTICULTURE.—Cherry Culture—No. 6, 211.

POULTRY YARD.—Raising Turkeys, 211.

THE DAIRY.—The Dairy Association, 211.

PATRONS OF HUSBANDRY.—The Mission to Europe; The Grange Centennial Encampment; Election of Officers; Amendments to the Constitution of the N. G., Ratified; Ladies in the Grange; From the Granges; In Memoriam, 212-13.

AGRICULTURAL NOTES from various counties in California and Oregon, 213

HOME CIRCLE.—Moss (Poetry); Farm House Chat; Newspaper Reading; Sensibly Made Clothing; Our Duty to One Another; Decorations for the Table; The Man of Honor; A Sell, not a Sale; A Pleasant Kitchen, 214. "Those Old Folks;" Silent Men; A Cause of Failure in Life; Childhood's Lessons; Remarkable and Significant Coincidence, 215.

YOUNG FOLKS' COLUMN.—A Wish (Poetry); Queer Little Homes, 215.

GOOD HEALTH.—Regulating the Bowels; Beds and Bedrooms; Scarlet Fever, 215.

DOMESTIC ECONOMY.—Cooking Carrots; Split Pea Soup, 215.

QUERIES AND REPLIES.—Diseases of Sheep; Cure for Scab; Lice on Cattle; California Holly, 217.

GENERAL NEWS—General News Items and Miscellaneous Paragraphs, on 220 and other pages.

USEFUL INFORMATION.—Mace and Nutmegs; Lighthouse White-Wash; A New Mucilage, 218.

BEES.—Swarming, 222.

NEW ADVERTISEMENTS.

Althouse Windmill, Baker & Hamilton, S. F.; Portable Wood and Straw Burning Engines, Joseph Enright, San Jose, Cal.; King's Patent Straw-Burning Attachment, John Caine, S. F.; Baxter Improved Header, Sweepstake Plow Company, San Leandro, Cal.

The Week.

The week has proved a time of life and action both in town and country. Barring the smoked-glass darkness at eclipse time on Saturday, and the grateful shower on Wednesday morning, the days have been very bright and the streets have been resonant with the heavy pounding of the ponderous drays and the clatter of hurrying pedestrians. Trade has been awakened and no grass has grown beneath the feet of its votaries.

In the country, too, the week has held days of timely and effective doing. In the belated districts the plow has bruised the heel of the departing moisture, and the seed has fallen fast where not long ago rain drops held eminent domain. In the regions of flocks the sheare have flashed like lightning through the fleecy clouds, and measured their blade lengths a thousand times a day over the snowy fields which the abundant rains have prepared for the shearer. Already summer scenes invite the frozen Eastener, for while the telegraph places the heaviest snow storm of the year in Chicago, there are hay fields in Yolo and Ventura. But this is only as it is right to be—for this is California.

The Centennial.

We glory in the coming Centennial exposition as fitted to show to the world our national progress and to awaken in our own citizens that glow of earnest patriotism which can launch us on the second century of our national existence with something of the true zeal which inspired the nation's birth. But there are other influences which the national occasion will exert which will prove not less beneficent and not less enduring. In order to be of real benefit any occasion must educate as well as excite; it must point out the avenues of progress as well as arouse the spirit of advancement. Such, it seems to us, is one of the promises which the coming event outholds, and we are impelled to mention briefly the ways in which the promise will be realized.

From every part of the Union there will come together the first fruits of industry. From every part also there will come people to look upon them. Thus each section of the country will gain through its representatives a knowledge of what all other sections have achieved. Each will look upon the resources, the characteristics and ingenious triumphs of all, and the result will be a comprehensive idea of progress, a concentrated education in its methods, which each will carry to his home and each will describe and relate until the whole community will be filled with the inspiration of improved methods and improved results.

In all industrial life and action there will arise a new conquering spirit. The inventive genius of the people will date new trimmphs from the suggestive property of the grand displays. The soil will be made to rejoice the husbandman with novel and pleasant growths. Trades will discover new principles and manufacturers new methods. In short, we believe the wide result will be, from one end of the country to the other, a movement in all industries which will secure more intelligent and more productive labor, cheaper and more wholesome necessaries of life, comforts more attainable to all, and, through these, longer, better and happier life for our people.

It cannot be otherwise than beneficent morally as well as physically, this great basking time of the nation. The light of combined and associated intelligence will tear the cloak from many a sham and reassure many who have come to doubt the great true heart of the people. The occasion will make all the States akin. It will correct many a false sectional prejudice. It will enlarge, ennoble and liberalize many a mind. It will teach the country more about itself and its citizens in a summer than could otherwise be learned in half a century. Thus we believe the Centennial influence will be. Thus let it be.

The Growing Crops.

We have generally favorable advices from the interior of the growing crops; the reports ranging from glorious down to good by easy stages. In the northerly and coast countiee, there is news of heads above water, cessation of storms and brisk work in the fields. In the dairy districts of Marin, Sonoma and Lake counties, there is splendid feed, and a bright prospect of a large yield. There also has been much late seeding successfully accomplished, and good results expected. Early sown grain and volunteer is reported very forward. Napa has an abundance of peach and apricot blossoms, which have escaped the frost thus far, and grapes promise to be more abundant than the ways of disposing of them.

During the week there has been a "norther," which has made way with much of the surface moisture. In Yolo it only seemed to carry off the surplus. In Sonoma it was "hateful," but did good service on the late land. In Colusa it was a "tearer." In Contra Costa it left a crust, and cracked the adobe, and the farmers are asking for a little more rain, or clouds at least. The San Joaquin valley maintains former notes of unusual yields. Throughout the Calaveras valley the crop is reported not less than 30 bushels to the acre. The black lands about Stockton will take a rest this year, owing to the prolonged soaking.

In Monterey we are told of July weather, trade winds, little dew, mild days and nights and indications of the inset of the dry season. The wheat in many places has the hight which belongs to June. San Luis Obispo reports grain heading, and dairy feed assured until late in the season.

Wheat Growing.

Our readers have doubtless noted the interesting discussion on different points and methods of wheat growing, which has appeared in our Correspondence Department during the last three or four weeks. The varied experience which has been described shows clearly the need which exists for a thorough and careful examination of the whole subject. The different results attained by any single method of cultivation, under the conditions which prevail in different localities, declare that general rules for practice are almost impossible of application, and that, to ascertain exact truth, inquiry and research must be undertaken by each chorographical division of our producing area to discover what is the secret of success under its own conditions of soil, situation and meteorology. In our State, because of a lack of a complete geographical survey, it is impossible to generalize intelligently, even for districts of our area, and the best method we know of gaining approximate knowledge is by inviting our practical correspondents to furnish us the notes of their experience. Because of this fact we encourage our grain growing readers in all parts of the State to write us of their success or failure with different crops and methods of cultivation. We call attention of readers to articles of this character which have already appeared in the PRESS during the last few weeks, and ask all to give us information of success or failure, with the different practices described or to describe any which they have found practically valuable.

Cost and Profit in Wheat.

Concerning the cost of producing wheat and the profit therefrom, there must be as wide a difference as in practices of production. In labor, in yield, in bagging and in transportation, and in other items of expense, there are, and must be, wide margins of error, if any general estimate be applied to special localities, and yet it is of great interest to make general estimates, because they may serve as a basis of computation, and can easily be corrected. For a use of this kind we present to our readers the following tables, prepared for the RURAL PRESS Our readers will remember that these figures are only presented as estimates, and are submitted as capable of amendment:

Cost and Profit on Wheat Delivered in S. F., at $1.60 per ctl.; Land Valued at $50 per Acre, Interest 10 per cent.

DEBITS.	Yield, 15 bush-900 lbs	Yield, 20 bush-1200 lbs	Yield, 25 bush-1500 lbs	Yield, 30 bush-1800 lbs	Yield, 35 bush-2100 lbs	Yield, 40 bush-2400 lbs
Seed.....80 lbs @ $1 75	$2 00	$2 00	$2 00	$2 00	$2 00	$2 00
Plowing.....	2 00	2 00	2 00	2 00	2 00	2 00
Sowing.....	12	12	12	12	12	12
Harrowing.....	43	43	43	43	43	43
Threshing.....8 cts. ₩ bush.	1 20	1 60	2 00	2 40	2 80	3 20
Heading.....9 (@ 12 cts.	1 08	1 44	1 80	2 16	2 52	2 88
Hauling.....$3 ton	1 35	1 80	2 25	2 70	3 15	3 60
Sacks.....$2 (@ $2 ton	1 16	1 55	1 94	2 33	2 72	3 11
Freight.....$2 60 per ton	1 95	2 60	3 25	3 90	4 55	5 20
Commissions.....2½ per cent.	5 00	5 00	5 00	5 00	5 00	5 00
Interest on Land.....	2 50	2 50	2 50	2 50	2 50	2 50
Cost per Acre.....	$14 90	$15 99	$17 19	$18 29	$19 46	$20 96
Profit per Acre.....	5 00	5 00	5 00	5 00	5 00	5 00
Profit on 100 acres.....	$1 90	$3 81	$5 81	$7 71	$9 46	$11 71
Less interest, wear and tear, etc.	40 00	125 00	125 00	125 00	125 00	125 00
Net profits per 100 acres.....	$38 10	$81 81	$119 81	$157 71	$195 46	$233 71
CREDITS.						
Sales of Wheat.....	$24 00	$32 00	$40 00	$48 00	$56 00	$64 00
Value of Stubble.....	75	1 00	1 25	1 50	1 75	2 00
Value of Straw.....	15 —	20 —	25 —	30 —	35 —	40 —
Profit per Acre.....	$24 90	$33 81	$42 71	$51 61	$60 46	$69 71
Profit on 100 acres.....	$2 490 00	$3 381 00	$4 271 00	$5 161 00	$6 046 00	$6 971 00
Less interest, wear and tear, etc.	40 00	125 00	125 00	125 00	125 00	125 00
Net profits per 100 acres.....	$2 450 00	$3 256 00	$4 146 00	$5 036 00	$5 921 00	$6 846 00

The following table is a deduction from the foregoing, computed to show the various degrees of profit which are produced by fluctuation in market values.

PRICE.	Profit on 15 bush. Yield.	Profit on 20 bush. Yield.	Profit on 25 bush. Yield.	Profit on 30 bush. Yield.	Profit on 35 bush. Yield.	Profit on 40 bush. Yield.
$1 30 per ctl....	.....	$ 30	$ 3 32	$ 6 44	$ 8 95	$11 77
1.35 "	.....	88	4 05	7 32	10 27	12 94
1.40 "	.....	1 47	4 78	8 20	11 28	14 11
1.45 "	.....	2 05	5 52	9 08	12 32	15 28
1.50 "	.....	2 64	6 25	9 95	13 34	16 45
1.55 "	.....	3 22	6 98	10 83	14 37	17 62
1.60 "	.....	3 81	7 71	11 71	15 39	18 79
1.65 "	$ 44	4 39	8 44	12 59	16 41	19 96
1.70 "	88	4 98	9 17	13 44	17 43	21 13
1.75 "	1 32	5 56	9 90	14 34	18 46	22 30
1 80 "	1 75	6 15	10 63	15 22	19 49	23 49
1.85 "	2 19	6 73	11 37	16 10	20 51	24 64
1.90 "	2 64	7 39	12 10	14 97	21 53	25 81
1.95 "	3 07	7 9	12 83	17 85	22 56	26 98
2.00 "	3 51	8 49	13 56	18 73	23 58	28 15

We trust these computations will prove suggestive aids to our readers in figuring the results of their operations.

What Are We Doing in Flax?

Our sister State on the north bids fair to eclipse us completely in the matter of flax. While we have been content to grow the crop for the seed and disregarded the value of the fibrous straw, the Oregon farmer has drawn to his field a skilled manufacturer with machinery, and soon the straw, instead of being left to rot, will be spun out into twine and made ready to enter into many profitable forms. It is interesting to have information of our neighbor's success. It will be well if some of our enterprising citizens would take the hint and lay the foundation of another triumph to rank with our other industrial successes. The *Willamette Farmer* has been giving considerable attention of late to the culture of flax in Oregon. It seems that a man skilled in flax matters, Mr. Edwin Akin, has lately come to the State. The *Farmer* gives us the rest of the interesting recital: "Mr. Akin's business has been to work up the flax straw into lint and tow for the use of manufacturers, which of course enabled him to judge of the fineness and quality of the fiber, and as soon as he had an opportunity to form an opinion he pronounced Oregon flax equal in quality to any grown in the world. He has always expressed the opinion that the mere knowledge of the fact that Oregon was a good flax country would induce manufacturers to come here, and his confidence is verified in the fact that Mr. H. M. Crane, a well known and financially able manufacturer from Schenectady, N. Y., is now on his way out, expects to arrive by the middle of the present month, with machinery, and has written on to know what amount of flax will be here for him to work up. He will, at first, not need over 700 pounds per day, and the probability is that there will be flax enough on hand to last his machinery three months, or longer. We understand that he will commence making twine and shoe thread; and if these succeed, we may expect the manufacture to spread to other articles.

"Now that manufacture is about to commence in earnest, and machinery will soon be running, it will be necessary to provide Mr. Crane with the staple to work up, for he does not propose either to raise the flax or prepare the fiber. At least 300 acres will be sown near Jefferson and Marion, but that will not afford the manufacturer, when fairly at work, more than two months' supply of the raw material. It is very desirable that farmers throughout this valley should all raise a few acres of flax so as to be able to keep the manufacturer at work."

Thus the *Farmer* incites its readers to the new industry. It says also to them: "If we can supply the Pacific coast with these articles, it will leave a good deal of money in Oregon, and we undoubtedly can and we hope soon will do so." This is the programme with which the Oregonians cheer themselves. Is California enterprise content to wait and buy flax from Oregon?

It will be an additional incentive to flax growing to know that a foreign market exists. A New York paper contains the following: "The venerable Peter Cooper, in company with a well-known writer on flax, held a long interview at the Brevoort house, on Thursday, with Messrs. Miller & Fleming, the millionaire flax merchants of Dundee, Scotland, and likewise Erie investigators. Mr. Cooper, who believes that this country should be a great flax exporting country, had provided himself with samples of flax from Ohio and Louisiana. Mr. Miller said he had no idea that this country could raise such qualities, and at a much lower price than Russia, from which Dundee obtains its principal supply. After looking at the samples some time, he said: 'I will take this year $1,000,000 worth of flax like your sample. I want nothing better, but I am not dealing in jute now.' He said further, that he uses 5,000 tons of flax and 3,000 tons of tow. The reason that large stocks are held in Dundee is on account of the Baltic being closed for five months in the year."

A SPLENDID WORKER.—Since we adopted the Willcox & Gibbs sewing machine for stitching the backs this paper (about two months ago) it has worked like a charm. We have stitched over 80,000 copies without breaking the first needle! But a single thread is used and that is fed from the original spool. This saves frequent threading of the needle and does away with all winding of thread. We run the machine by steam power because that power is most convenient in our office. It is one of the very easiest running machines, as it is one of the simplest. A child can operate it. They are very perfectly manufactured, not likely to get out of repair, and will last a lifetime. The new machine has points of excellence over all others. We advise those who wish a low-priced machine to address the general agent, E. B. Cutler, 111 Post street, San Francisco.

ON FILE.—"Botanical Excursions," J. G. L.; "Yield from One Cow," S. A. F.; "Inquiry Concerning Condensed Milk," R. T.; "Planting Eucalyptus," W. A. T. S.; "Rontier's Ranch," X X X; "Dairy Association," J. B. C.; "Analysis of Fruit Resources," G. C. P.; "Agriculture in Chile," C. T. W.; "Ferndale Grange," E. A. D.; "Growing Onions," A. J. B.

Queries and Replies.

Diseases of Sheep.

Editors Press:—Can you or some of your many correspondents answer me a few questions about some diseases of sheep. The first is a disease which attacks young lambs from two to four weeks old; it completely paralyzes them; it seems to commence in the hind legs and gradually works toward the head; the eyes protrude and the ears are drawn back; the breathing is hard and labored; the lamb invariably dies when attacked. Can you give name and remedy? Also, what causes and what is the cure for sore udders of ewes, which come near the time that the grass is dying? It is not caused by overflow of milk; some when attacked die and some recover. Please print this in your splendid paper and oblige.—A Subscriber, Hueneme, Cal.

We should be pleased to hear from sheep raisers on these points.

Cure for Scab.

Editors Press:—I noticed lately an inquiry about the proportions of lime, sulphur and water to be used in curing scab. The correct proportions are 100 lbs. of flour of sulphur, 50 lbs. of lime, 100 gallons of cold water. Let this mixture boil about 10 minutes, then mix one gallon of this solution with three gallons of water, make the dip from 100 to 115 deg. Fahr. and plunge the sheep in, leaving them in about a minute. When dry, the cure is complete.—Sheep Raiser.

Lice on Cattle.

Editors Press:—I have seen a great deal in your paper about carbolic powder as a cure for lice on poultry. Please inform me through your next issue if the same remedy will answer for lice on cattle, and oblige. —S. R. C., San Juan, Cal.

Mr. Eyre, who has introduced this carbolic powder, informs us that he has never heard of its being tried on cattle, but he thinks it will drive away lice of any kind. A remedy for lice on cattle is to saturate a coarse string with mercurial ointment, and tie around the neck of the animal. The application of oil is effective, as is also washing with carbolic or whale oil soap.

California Holly.

Editors Press:—I send you a specimen of a shrub that grows in the mountains around here. The bush bears a fine berry of a bluish cast, similar to a currant. Please name it.—S. H. Gaekill, Campo, Cal.

The plant is very abundant and is known as the California holly (*Berberis aquifolia*, Pursh). It has been used, we are informed, with some success as a hedge plant.

Home Manufactures—The Sweepstake Plow Company.

Having a special interest in home manufactures we paid these prominent works, at San Leandro, Alameda county, a visit, and were really surprised at the magnitude of their business. In addition to the celebrated Eureka gang plow and Granger gangs of 3, 4, 5, 6, 8 and 10 plows each, and various sizes of single plows, cultivators, harrows and many other agricultural implements, we were shown by the superintendent, Mr. F. A. Hill, the Baxter improved header for 1876. And right here let us say to the farmers of this State and coast that we have reason to believe that this header is unsurpassed by any yet offered to the public, and that grain raisers should thoroughly examine them before buying any other style. The testimonials shown us by Mr. Hill, from a number of our largest and most influential farmers in the State, more than verify all we have said in their favor. We learn that they are built of the best material, the frames being of Eastern hard wood. The pulleys are all iron. They have iron drive wheels and 40 inch drapers. The company are putting up different sizes, 10, 12, 14 and 16 feet. They combine both strength and light draft, durability and a great degree of perfection in all parts.

They also build a tule header for tule land, with wide tire, light though strong, and just such characteristics as our tule lands require, and what our farmers have so long needed.

In order that our readers may see that we have reason for our strong assertions concerning the Baxter header, we will refer to a few extracts (published in our advertising columns) from quite a number of testimonials we have received from men whose names cannot but carry conviction with their praise.

The works have now been under the management of Mr. Hill over four years. From 90 to 124 men are employed, numixed with the "heathen Chinee."

While some more pretentious manufactories of agricultural implements on this coast have met with sudden disaster, these works have progressed from year to year. Nearly every season new and important inventions have been patented for the benefit of this company, while constant modifications and minor improvements of less individual significance have aggregated great advancement in the qualities of the machines turned out and the economy in making them.

A more experienced corps of workmen need not be looked for anywhere. Their long practice on machines especially adapted to the wants of this coast gives them decided advantages over other manufacturers.

No Paper in the World can Fill its Place.—E. B. H. writes from Ventura county: "I would like to see every farmer in the county take the Rural Press. It is the best paper that the farmers in this State can have. No paper in the world can fill its place."

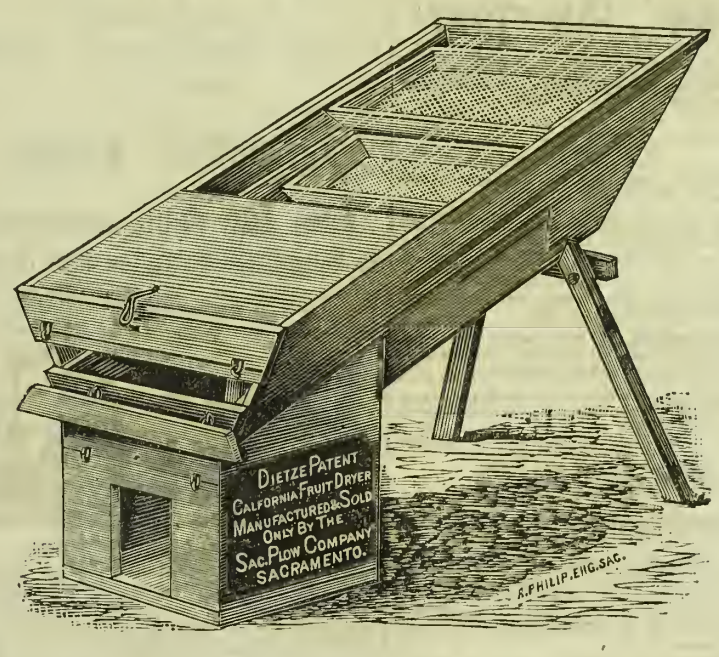
Farm and Fruit Land.—Attention is directed to the advertisement of Mr. G. O. Pearson, who offers several hundred acres of land for sale this week.

California Fruit Dryer.

The importance of effective apparatus for drying fruit cannot be overestimated. Upon this and other modes of preserving the surplus of his crop which cannot be profitably placed upon the market in its natural form, depends the success which the average fruit grower will attain. When a large crop makes the price ruinously low, it is the producer's safeguard to be able to convert a part of his fruit into imperishable form in which it can be marketed at a favorable season. To the fruit grower who is beyond the reach of quick shipment of his yield to a market, the advantage of drying is even greater. Indeed, the benefits of a good drying apparatus are clear. The apparatus is a necessary adjunct to profitable fruit growing in many parts of the State.

The "California fruit drier," Dietz patent, which we illustrate on this page, is represented to us as possessed of much value. After thorough testing and working, the manufacturers assure us that apples are dried in the machine in one hour and 40 minutes, and peaches in one and a half to two hours. Meats are cured in a thorough manner. The machines are also claimed to be fitted for curing raisins and hops. The construction is simple and durable. There are four tiers of sieves, made of galvanized iron wire. They are put in at the bottom and fed forward and delivered at the upper end. The machines are made both with brick base and iron front. Wood is used in the elevated portion.

These fruit dryers are made of different sizes, ranging in price from $300 to $2,500. Machines to meet the ordinary demands of farmers and orchardists are priced at $300 and $350, and



will do a wide range of work. The machines may be obtained from the Sacramento plow company, Sacramento, Cal.

Real Estate Movements.—There seems to be more disposition to find investment for capital in improved farms and lands now as money is getting easier. The mortgage tax has been removed, and good crops generally seem assured. It is pleasant to note this fact, and we propose to keep our readers posted as to the prices gained for farming lands by reports of actual sales in different localities. We will also state another for the mutual benefit of the Rural Press and those who have lands for sale, namely, that the Rural Press—probably read by four times more agriculturists, including farm owners, renters and laborers—than any other newspapor on this coast, is the best medium for advertising real estate. We have not and do not propose to write up any individual land schemes, but our advertising department is open to any reputable enterprise or project for the sale and development of lands in all parts of the Pacific coast. Thousands of copies of the Rural Press are monthly sent abroad by subscribers and other patrons. Our terms for all advertisements are low considering the large circulation of the paper. We cannot pretend to vouch for every advertising patron, although we solicit none to us of doubtful character. And it is with great satisfaction that we ask readers to compare the character of our advertisements and advertisers as a whole with those of any religious or first-class paper in the United States.

Eucalyptus for Health.—Abundant testimony is at hand of the health giving influences of the eucalyptus. The latest is the following, from the *Journal of Horticulture:* At the Mokta iron mines, 20 miles inland from Bona, in Algeria, *Eucalyptus globulus* was first planted eight years ago, and with such beneficial effects that fever is reduced very considerably. The foreman who showed me over the works said they had not above one case of fever now where formerly they had four. The consequence is that the company are planting it by the million. Another benefit is said to belong to it, viz: that mosquitoes will not come within its influence.

A New Textile.

We have notice of a new textile which a Louisiana farmer has developed into usefulness. It is prepared from the "bear grass" and "Spanish dagger," botanically known as *Yucca filamentosa* and *Yucca alœfolia*. These plants grow abundantly in the Southern States and in Mexico. In a late issue of *Our Home Journal*, A. Stoner states his experience with the plant It is a large spear leaved growth, dark evergreen, the blades or leaves from a half inch to two inches broad, generally about 14 inches long and by cultivation can be grown to six feet in length, and contains very valuable fiber for the purpose of making ropes, bagging, matting and all species of coarse cloths. The fiber can be readily obtained with machinery, by means of which the green leaves are thoroughly mashed, and then passing through a process of washing which removes all extraneous substances, leaving the fiber as white as Irish linen and ready for market; the waste by cleaning is less than one-tenth.

The Cultivation of Yucca.

The plant thrives best on rich soils, growing to a greater length and stronger fiber, but coarser, and in sandy and poor clay soil, grows shorter and of a finer quality and is known to grow on the highest "Piney woods" hill, and in the lowest bottom lands. The cocoa or wire grass has no effect on its growth, whatever, neither is it affected by overflow.

The yucca is propagated by planting the roots or seed any time in the fall, winter or spring. The *Yucca alœfolia* may also be propagated by planting the stalk cut in pieces and planted like Irish potatoes. The *Yucca filamentosa* has a bulbous root resembling sweet potatoes and may be planted similar, and needs no replanting for 100 years. There are patches of the yucca now growing in Louisiana and Mississippi in the woods and briars, where the sun has not probably shone on them for 60 years, and there are others growing on lawns known to have been planted more than 100 years ago. The older it gets the thicker and more thrifty the growth; it is not only an evergreen but grows the entire year, needs no enclosure, and is without enemies.

To harvest and prepare for market the green leaves are stripped from the stalk, either by hand or by means of a spud, then run through the yucca cleaner green as they are stripped, then the fiber is ready for baling and the market. A man with a mule can plant and cultivate 20 acres in drills, similar to sugar cane, from the 1st of September to the 1st of January, and from the 1st of January to the 1st of May he can plant and cultivate 20 acres more, and during the months of May and June 10 acres more. The experience of Mr. Stoner is that it will require slight or no cultivation after the first year, when planted as a farm product. The clean or marketable fiber and materials manufactured therefrom, were never known to be introduced into commerce until 1872.

The editor of the *Home Journal* states that the yucca fiber has been shown to rope and cordage manufacturers and they pronounce the fiber superior to manilla, and will find ready sale at from 10 to 15 cents a pound.

Crop of Premium Wheat.—The Burlington County agricultural society, of New Jersey, awarded the highest prize to William Parry, of Cinaminson, for a crop of 6 and 41,100 acres of wheat. The Fultz variety was sowed September 9 th, 1874. The yield, per acre, was about 30 bushels. The aggregate number of bushels was 193, which was sold at $1.50 per bushel. Total, $289.50. Straw and chaff valued at $31.50. Expense of plowing twice, $12; seed, 10 bushels, $15; harrowing and cultivating, $12; hair manure (no other fertilizer), $100; harvesting and threshing, $34.50; value of crop, $321; expense of cultivation, $173.50; difference between cost of cultivation and value of crop, $147.50. Net profit per acre, about $23.

Our Reporter Abroad.

Number Four.

Auburn.

After the chilly winds of the coast and the mud and water of the valley, this delightful little hill town seems almost a paradise. The air is warm without being enervating, and dry without harshness. The wild flowers make cheerful every hillside and clear streams follow every ravine. The buds and blossoms, the delicate foliage and green fields, which are all nature's beautiful promises of reward for man's labor, are charms which few could resist. If it could be March all the year round at Auburn, no one would want another home. It is so calmly delightful here now that one does not want to think of the recent storms, the effects of which are still visible, nor of the coming dry season which will parch and discolor the hilltops. From many of the hills may be seen towards the west, the valley, the river and the Coast range, and 25 miles to the east the snow covering the mountains, while this spot, with its balmy air and its bright blossoms, seems to be the happy medium. No portion of the foothills yet seen is more attractive than this, or offers superior advantages for the cultivation of fruits, and for some stock and farming enterprises. The agricultural interest is still subordinate to the mining, but this will not be so much longer, for while new mines will be opened and old ones be more fully developed, the tillers of the soil are increasing in numbers with each year, and their productions are materially adding to the resources of the section

Land and Crops.

Land may be had almost for the asking. Railroad land for $2.50 per acre and government land upon the usual terms, with enough wood for fuel and farm purposes. The soil is a red clay and possesses great fertility. It cannot be called a grain region, but the small grains are sown to make hay. Wheat for this purpose is cut and cured when the grain is in the milk state, and makes a most nutritious hay, which all stock is fond of. Several persons have produced good crops of alfalfa on the hillsides and enormous ones when freely irrigated. This crop, however, has to contend here as elsewhere with the parasitic vine which was described and illustrated in the Press some time ago.

Fruits.

Grapes and all kinds of fruits and nuts are produced in great perfection, and the most tender are rarely injured by frost. Here and at Newcastle, a few miles away, thousands of vines are in bearing, and this is the one crop which they do not irrigate. Strawberries, raspberries, blackberries and currants occupy many acres, and orange, lemon, fig and almond trees are found in every garden. One gentleman, Mr. J. W. Hulbert, has such confidence in the profit of almond growing in the foothills that he is now planting a large orchard, and expects to increase it year by year.

Silk.

Just out of the town is the vineyard of Mr. B. Bernhard. He has 25,000 vines in bearing, and sells the larger part of his crop over the mountains, but makes some wine and brandy. Mr. Bernhard is also enthusiastic and persistent upon the subject of the silk worm. He has over a thousand thrifty young mulberry trees, can feed a million of worms and has an abundance of eggs for the ensuing season The want of a market for his silk confines his operations at present, but in spite of all discouragements he is determined to hold on and be prepared for the good time coming.

The railroad traversing the whole extent of this long, narrow county, supplies the means of shipping both large and small fruits either east or west. Their best market is usually eastward to all the towns over the mountains, but they can just as readily ship west when the market is better there.

Angoras.

Near Auburn, Mr. E. D. Shirland has his Angora goat ranch, which is admirably adapted to the purpose, having plenty of water, a large pasture range and an ample quantity of land suitable for alfalfa. Mr. S. will limit his flock to 1,000, and is rapidly getting up to this number—will shear 800 of seven-eighths grade and upwards at next shearing. The seven-eighths average one and a half to two pounds, 15-16ths two and a half to three pounds, and higher grades three and a half to four pounds. His heaviest fleeces are from grades. Sells his wool in New York unassorted, last sales being made at 70 cents. He is well satisfied with the business at present, and thinks it will be much better when the factories send out their agents to instruct the growers as to assorting the wool.

A little observation shows that stock raising in this vicinity need not be confined to goats. There is a fine pasture and thousands of acres of unoccupied land, which must soon be used for this purpose. There is no reason why the dairy business should not be as largely and successfully carried on here as in other portions of the foothill country. This may be profitably done even with the necessity of driving to the mountains in the summer, but experiment shows that abundance of hay from grain and alfalfa can be raised. J.

Useful Information.

Mace and Nutmegs.—Most of our readers doubtless know that the nutmeg, like all other spice, grows in tropical countries. The fruit of the nutmeg tree, especially as it approaches maturity, is very like a large yellow peach. At maturity the outer hull opens, and if not gathered the valuable product would soon fall to the ground. The mace is the second coat which covers the nutmeg, and almost envelops the dark, impervious hull, or third covering of the nutmeg. When the product is gathered the mace is of a deep red color, and is taken carefully from the hull which still incloses the nut. Then the hull is broken and the nut taken out, when it is ready for market. In the palmy days of the "Hon. East India company," all the company's possessions were governed by 24 gentlemen in London, called the "Hon. Court of Directors," who had spent their lives from early manhood to middle age in India, were usually the company's most distinguished civil and military servants, and were supposed to know everything pertaining to the interests of the great corporation. They superintended the sale of all Indian products, and, finding at one period that the mace sold more readily than the nutmeg, they wrote to the government in India *to cultivate more of the mace and less of the nut!*

Lighthouse White-Wash.—The following are the ingredients which compose the white-wash sent out by the Lighthouse board of the Treasury Department, and which, it may reasonably be supposed, is the preparation which the best knowledge and fullest experience has selected from the many which are used for the purpose indicated: Slack one-half bushel of unslacked lime with boiling water, keeping it covered during the process. Then strain it, and add a peck of salt, dissolve in warm water, three pounds of ground rice put in boiling water and boiled to a thin paste, half pound powdered Spanish whiting and a pound of clear glue dissolved in warm water. Mix these well together and let the mixture stand for several days. Keep the wash in a portable furnace, and when used put it on as hot as possible with either a painter or white-wash brush. Thus prepared, this wash has been found, by experience, to answer on wood, brick or stone nearly as well as oil paint, and it is much cheaper.

Kerosene is making rapid advances against coal gas all over the country. The cost of oil light is about one-sixth the cost of gas light, and there is no doubt that it affords a far better light for the eyes. We do not see how the gas companies are to stem the tide that seems to set against them, except by adopting petroleum themselves and thus enabling themselves to reduce the price of gas to a point nearer the cost of oil light.

A New Mucilage.—The *Journal de Pharmacie* states that if, to a strong solution of gum arabic, measuring eight and one-third ounces, a solution of 30 grains of sulphate of aluminum dissolved in two-thirds of an ounce of water be added, a very strong mucilage is formed, capable of fastening wood together, or of mending porcelain or glass.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

H. K. CUMMINGS. 1858. H. H. RALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the producer. 4v23-1y

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. Rowe Elastic Truss Company, 609 Sacramento St., S. F

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 47 Cal. Market S.F

McCormick's Mowers and Reapers.

Everybody knows that McCormick's Reapers and Mowers have a world-wide reputation. McCormick's inventions on these machines have been the most important ever patented in this or any other country. Selling thousands of them in the older States, in the face of all kinds of opposition, the inventors and makers (who have an immense factory,) have not hitherto pushed the machines on this Western shore, as they now intend to. Farmers can depend upon every machine and all its parts when sent out from the factory of this old established firm.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also ¾ and ½ Cotswold grade sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE Jr., Napa, Cal. Thoroughbred Southdown; Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro srects, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Live Stock Notices.

We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 500 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular.

LANDRUM & RODGERS,
Watsonville, Santa Cruz Co., Cal.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

R. S. THOMPSON,

Importer and Breeder of

PURE BERKSHIRE SWINE,

NAPA, CAL.

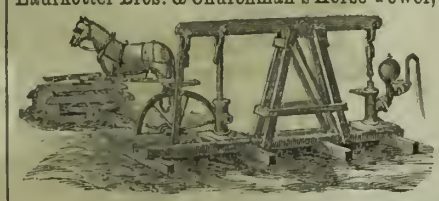
Agricultural Articles.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[Patented February 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S

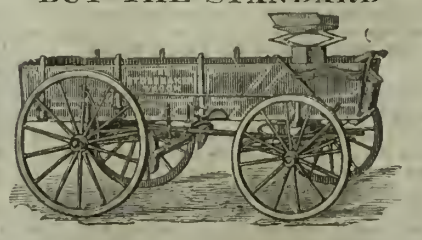
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. E. AMES, Gen. Agent,
Send for Price-List. Sacramento, Cal.

ÆTNA MOWER AND REAPER

Price of Mower, $100.

The Latest and Best. Weight, 650 lbs; cuts four feet, four and one-half inches. It has ALL THE IMPROVEMENTS of every first-class machine, besides a DOUBLE SPEED (which no other has), giving a fast or slow speed to the knife or sickle—an important advantage. Send for Illustrated Pamphlet, and don't fail to see the "ÆTNA," before buying. For sale only by

TREADWELL & CO., San Francisco.

☞We guarantee to keep "extras" on hand from year to year for this machine.

OAKLAND

Spring Balance Gang Plow,

Patented by H. N. DALTON, and Manufactured at the

Pacheco Agricultural Implement Works,

Pacheco, Cal., Established in 1858.

This Plow is constructed in the best style of workmanship and finish, and is guaranteed to run with lighter draft, to do more perfect work, and to be more easily and perfectly managed than any other yet offered to the farmer.

The essential feature of the device (see engraving in last week's RURAL), is a coiled spring, which acts upon a crank axle, turning the latter so that the plow may work to a depth of 9 inches into the ground, or be raised 7 inches above it, and the gang will work on side hill as well as on level ground. For illustrated circulars and prices, send to

HENRY N. DALTON,
Pacheco Agricultural Works, Pacheco, Cal.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't — I. G. GARDNER, V. Pres't
G. P. KELLOGG, Treasurer — A. W. THOMPSON, Att'y
I. C. STEELE, San Mateo — CHAS. LAIRD, Salinas
A. WOLF, Stockton — A. D. LOGAN, Colusa
W. H. BAXTER, S. F — G. W. COLBY, Butte Co
J. C. MERRYFIELD, Dixon — C. J. CRESSEY, Oakland
A. B. NALLY, Santa Rosa — E. W. STEELE, S. L. Obispo
FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$3,026,378.00
TOTAL PREMIUMS	63,306.49
LOSSES PAID	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

Successor to A. Pfister & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - - $100,000.

WM. ERKSON, PRESIDENT
H. E. HILLS, MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little, J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

LEVI STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-hp

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

Ladies' Department.—Ladies will be admitted for instruction in all the Departments of the College.

Telegraphic Department.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD,
President Business College, San Francisco, Cal.

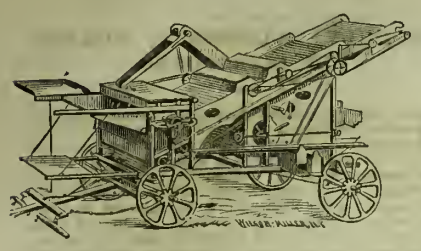
CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

Treadwell's Patent

END-SHAKE THRESHER.

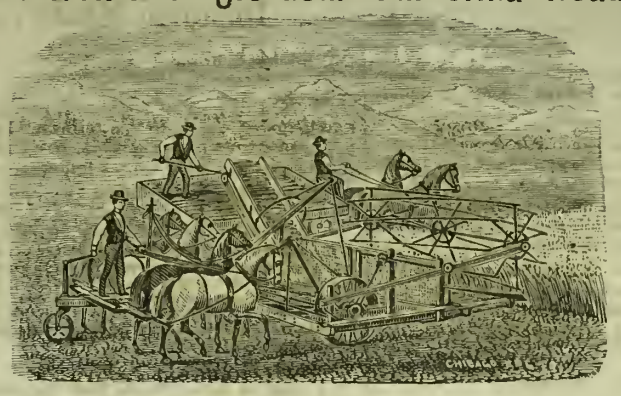


MADE BY RUSSELL.

We have 24, 30, 33, 36, and 40 inch machines, made this year, all with Laufenburg's patents, and the celebrated End-Shake Shoes—the greatest improvement yet made in Separators. Send for circulars and prices.

Treadwell's Single-Gear California Header.

High Iron Wheels with Adjustable Spokes.

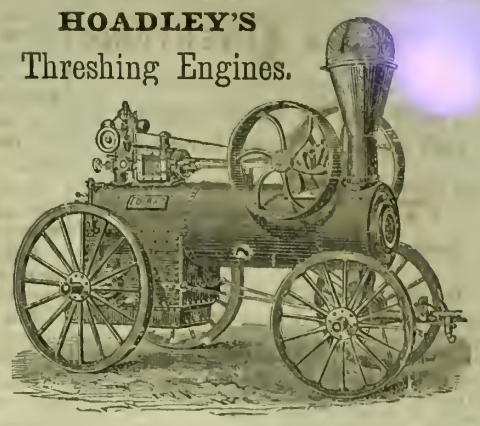


Patent Adjustable Reel and Frame Brace.

No other Header has these Improvements.

☞Any farmer buying $300 of worth machines or implements of us, will he paid his fare to San Francisco and back, if not over 200 miles. He can thus come and see for himself, without any expense. Send for our prices before ordering any machines.

HOADLEY'S Threshing Engines.



REDUCED PRICES.

9 Horse Power, new style, complete						$1,200
12	"	"	"	"	"	1,450
15	"	"	"	"	"	1,650
15	"	"	Patent Straw Burning Engine			1,700

TREADWELL & CO., - - - Old Stand, Market, head of Front Street, - - - San Francisco.

REMINGTON SEWING MACHINE.

Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel. S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco

ANGELL'S CHARCOAL DENTAL SOAP

for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

GREAT SALE

—OF—

Thorough-bred Short-horn Cattle and Berkshire Hogs,

To be Sold at Public Auction,

ON THURSDAY, APRIL 20th, 1876,

At the Fair Grounds, Sacramento,

Under the Auspices of the Short-horn Breeders' Association of California.

Consisting of Young Bulls, Cows, Heifers, and the entire herd belonging to the estate of G. N. Sweezy, of Marysville. We would say to the public, and especially to those wanting young bulls to improve their herds, that no better opportunity will be offered than at this sale for parties wishing to purchase, as a large number of the principal breeders of the State have each contributed a few head of choice animals to be sold. Catalogues furnished on application to Cyrus Jones, at Sacramento until April 3d, after that time at San Jose, Cal.

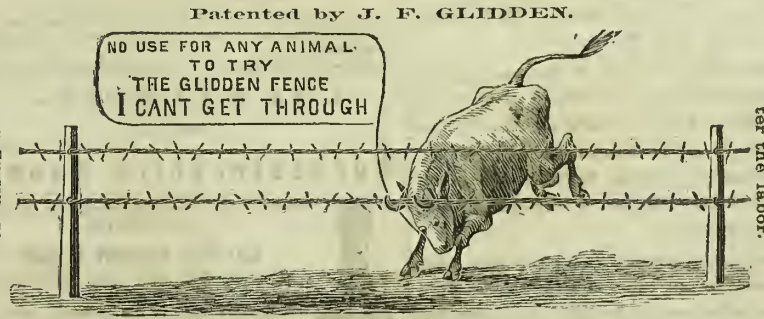
CYRUS JONES, Pres't.
ROBT. ASHBURNER, Secretary.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will he refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
General Agents for the Coast. K and 10th Streets, Sacramento.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
Dorado, El Dorado Co., Cal.

THE TURBINE.

Simplest, Cheapest, and Most Durable.

The Inventor of the Dexter Windmill has made new and useful improvements in Windmills, patented March 16th, 1875, and now feels confident of having the SIMPLEST, CHEAPEST, MOST DURABLE, and

ONLY PERMANENT WINDMILL

IN THE WORLD.

SIMPLEST, because it is less complicated; CHEAPEST, because it never needs repair, standing on a firm foundation; MOST DURABLE, because it is all under cover, and has less rigging to get out of order; ONLY PERMANENT, because the only Windmill in the world that has never been injured by storms. Hundreds of people, who have thought the Dexter perfect, will be glad to observe the SUPERIORITY OF THE TURBINE over all predecessors. Although much improved, the price of mills remain the same as formerly. Persons who study their own interest will investigate the TURBINE before purchasing any other.

Territory for sale outside of California, at reasonable rates and easy terms.

Mills built to order of the best material, and at the shortest notice, by Kimball Manufacturing Company, corner Fourth and Bryant streets, San Francisco. Any orders sent to their address will receive prompt attention.

☞For further information regarding Mills or Territory, send for New Circular. Address,

A. H. SOUTHWICK,
P. O. Box 1385, San Francisco or
P. O. Box 25, Oakland, Cal.

mr13-1am-bp

LIBERAL ADVANCES ON CONSIGNMENTS.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range,

53 and 55 J Street, Sacramento.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Mar. 28th, 1876.

FOR WEEK ENDING MARCH 14TH, 1876.*

HYDRAULIC HOIST.—Samuel Rounds, S. F., Cal.

NICKEL PLATING.—Camillo Maggio and Guiseppe Maffi da, S. F., Cal.

WINDMILL.—John Brower, Perry D. Reed and Jasper P. Reed, Colusa, Cal.

ROTARY PLOWS.—William H. Foye, S. F., Cal.

STEAM BOILER FURNACES.—Michael Laufenberg, S. F., Cal.

PROPELLERS FOR VESSELS.—Thomas M. Rankin, Modesto, Cal.

REISSUE.

ELEVATOR.—Philip Hinkle, S. F., Cal.

TRADEMARK.

MUCILAGE.—Joshua Z. Dickson, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Sales of Farming Lands.

Mendocino.

Sales: Lewis H. Neil to James Hopkins, 120 acres in sections 24 and 13, township 16, range 12, for $400; B. F. Blythe to James Hopkins, 160 acres in section 13, township 16, range 12, for $400; Thomas Sawyers to Parker L. Hall, 109.87 acres, township 18, range 13, for $1,050; Hannah Lundstrom to W. C. and N. O. Christianson, 120 acres, lot 101, Yokayo rancho, for $2,000; Mary Bessee to W. W. Moore and Taylor Howard, 500 acres on Tom Kiah creek, for $2,000.—*Ukiah Democrat.*

Sonoma.

Another very important sale transpired this week. Mark McDonald, the capitalist of San Francisco, purchased of George Davis 130 15 acres of land on the edge of the town of Santa Rosa for $39,036.00, or $300 per acre. Mr. McDonald will subdivide that portion on the Avenue and Fourth street into town lots and the rest of the tract into villa lots, for which it is well suited. Most of the land is covered with clustered groves of oak which gives such variety and beauty to the land lying around Santa Rosa.—*Sonoma Democrat.*

On March 22d W. D. Bliss sold to Frank Silva, 38 acres in allotment 8, Roblar ranch, for $3 000. Wesley Wood and wife to James Warner, the east half of the north-west fourth and the west half of the north-east fourth, section 11, township 7, range 8, 160 acres, and the south-west fourth of the south-east fourth of section 2, township 7, range 8, 40 acres, and the north half of the south-west fourth, section 1, township 7, range 8, 80 acres, $5,300. James McKenna to Leroy Piver, the south-east fourth of the south-west fourth of section 15, the north-east fourth of the north-west fourth and the north half of the north-east fourth of section 22, township 8, range 12, 160 acres, $500. James McKenna to Leroy Piver, the north-west fourth of the south-east fourth, and the south-west fourth of the north-east fourth and the south half of the north-west fourth, section 15, township 8, range 12, 160 acres, $500. Chas. H. Lovejoy to J. W. Gray and Wm. Prindle, 100 acres of the Llanos de Santa Rosa grant, $1,500.—*Petaluma Argus.*

Colusa.

A tract of 8,798 acres of land on Grand island has just been sold by Joseph and George D. Roberts to Thomas H. Williams for $300,000.

San Diego.

The Santa Rosa rauch, which is situated in San Diego county and contains about 47,000 acres, was recently sold by the Machados to some capitalists for $45,000. It is between the Santa Margarita and Temecula.

General News Items.

YELLOW FEVER is prevalent in Rio Janeiro.

THE Hudson river is still blocked up with ice.

RECENT storms in New England have caused great damage.

THE floods have destroyed a large portion of the crops in southern France.

THE sugar crop of Cuba will be $30,000,000 less than that of last year.

THERE are 33 investigations under way before the Congressional committees.

WIFE beaters in California are now punished at the whipping post.

ELEVEN hundred new buildings were erected in the city last year.

PIPER, the Boston sexton, convicted of the murder of Mabel Young, has been sentenced to be hanged.

THE rinderpest has broken out in Japan among the cattle.

ACCORDING to Langley's new directory, we have a population of nearly 270,000 in San Francisco.

A STEAMSHIP load of articles for the Centennial from Rio Janeiro has arrived at Philadelphia.

A BILL has been signed by the Governor prohibiting fishing with nets, weirs or seines in the waters of San Antonio creek.

A WASHINGTON dispatch says the impeachment articles against Belknap will probably be reported to the House this week.

THE hill of Lane of Oregon to provide for paying the expenses of the Modoc war will give California $44,000 and Oregon $70,000

THE German Minister has given notice by the termination of the existing treaty of commerce between his government and China.

CHARLES H. BARTH, transportation clerk in the Quartermaster's Department, U. S. A., in this city, is discovered to be a defaulter to the extent of $67,000.

A DIFFICULTY between the American and Mexican soldiers at Brownsville and Matamoras a few days ago ended in the death of one of the former and two of the latter.

A MEMBER of the House Foreign Affairs Committee is reported as saying that the testimony already heard in relation to the Emma mine had convinced them that it was the most gigantic fraud of the century.

THE Committee appointed to consider the question of checking the immigration of Chinese to California propose to make the movement general by having the people of the interior towns unite in an expression of opinion on the subject by the passage of resolutions. These expressions will be used to the best advantage in applying for relief in the halls of Congress, where legislation will be asked for.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Holliban, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

BE MORE PARTICULAR.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levie, F. Anson, and Antonia Byros.

We also want the address of Wm. Buck.

A HOUSEKEEPER who has had ample experience and has just closed an engagement of over 18 months in care of a house, wishes a situation in the country. Has lived on a ranch and is confident of giving good satisfaction. Good reference given. Address M. G. N., 173 Minna street, San Francisco.

UNKNOWN.—We have lately received cash at this office without one explanation, as follows: From Carson, Nev., $4, by express.

The senders will please give full address, date of sending, etc.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

BOUND VOLUMES of the PACIFIC RURAL PRESS, from Volume One, are for sale at this office: price $5 per volume for single volumes; unbound $3. There are two volumes per year.

SEVERAL FIRST CLASS SEWING MACHINES can be had at favorable rates to the purchasers, if ordered soon, from the Grangers' Business Association, N. E. Cor. Davis and California streets, S. F.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

THAT EXCELLENT and widely circulated journal, the PACIFIC RURAL PRESS.—[Ventura Signal.

Testimonials of the Baxter Improved Header.

[Manufactured by the Sweepstake Plow Co., San Leandro, Alameda Co., Cal.]

Dr. H. J. Glenn, of Jacinto, Colusa Co., who numbers his acres by the thousand, and who has tried the various kinds of Headers, writes the Sweepstake Plow Co. as follows:

"The Headers purchased from you last season, of the Baxter patent, are the best I have ever used."

J. Bayliss, of Bayliss Bros., Jacinto, writes:

"I used one nearly two months, last season, and it did better work, run easier, and required less repairs than any Header I have ever used. I have used all kinds for years, and now have four different ones, and find yours far superior to any of them I am satisfied that I would make money if I would lay all the others aside and use none but the Baxter."

Duncan McKennon, of Salinas, says:

"I want no better Header than the Baxter. To take it all in all, it stands ahead of any that is made. I am cutting 40 acres per day, on an average, of grain that yields 20 sacks to the acre."

Ishmael; or, In the Depths.

Ishmael; or In the Depths, is the name of Mrs. E. D. E. N. Southworth's greatest work, to be published in book form, in a few days, by T. B. Peterson & Bros., Philadelphia, Pa. It is the best work ever written by Mrs. Southworth, and has never been published except in the New York *Ledger*, in which paper it was issued many years since, under the name of "Self-Made, or Out of the Depths," and is now in press, and will be issued in a few days, in book form, for the first time. Mrs. Southworth, in the preface to "Ishmael," says: "This story, in book form, has been called for by thousands, during several years past, but the author has reserved it until 1876, as her contribution to the Centennial; not only because she considers it to be her very best work, but because it is peculiarly a National Novel, being founded on the life and career of one of the noblest of our countrymen, who really lived, suffered, toiled, and triumphed in this land; one whose life is a guiding star to the youth of every land, to show them that there is no depth of human misery from which they may not, by virtue, energy and perseverance, rise to earthly honors as well as eternal glory." It will be published in a large duodecimo volume of seven hundred pages, bound in morocco cloth, gilt back, price $1.75, and be for sale by all booksellers, or advance copies of it will be sent to any one remitting the price of it to the publishers.

"The Public Lands of California."

The demand for this new work is steadily increasing, and the more widely that its merits are becoming known, its usefulness to everyone is becoming more fully demonstrated. The map of California and Nevada alone is worth more than fifty cents, the price asked for the work, and the fact that a glance at its pages shows the leading products, population, etc., of each county in the State, besides a list of the surveys of United States Land, subject to the homestead and pre-emption laws of Congress; a correct copy of the laws of Congress in regard to locating and holding this land, etc., renders it of inestimable value. Orders sent to Dewey & Co., enclosing fifty cents, will meet with prompt attention, as it will be forwarded immediately post paid.

CHOICE VOLUMES.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.

SEWING MACHINES.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

LEA & PERRINS'

CELEBRATED

Worcestershire Sauce.

Declared by connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,
San Francisco.

Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy five years. ROWLANDS' ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

The Mining and Scientific Press,

Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & CO., San Francisco.

Straw-Burning Attachment.

KING'S PATENT.

THE ONLY SUCCESSFUL BURNER YET INTRODUCED.

Having secured the exclusive right to manufacture and attach to engines, J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

The Attachment

Can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced County.

All orders addressed to J. R. KING, Patentee, in care of the Globe Iron Works, or H. C. SHAW PLOW CO., Stockton, will receive prompt attention.

☞Send for Circulars.

JOHN CAINE,
Proprietor Globe Iron Works.

Lands and Homes for Sale.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord	J. REGENSBURGER.....S. F.
J. VOLLMAR.....S. F.	A. W. THOMPSON.Petaluma
J. D. BLANCHAR.....Napa	F.A. KIMBALL....San Diego
C. MITCHELL GRANT.....	I. G. GARDNER.....S. F.

G. P. KELLOGG.....Salinas.

30,000 ACRES

Of the choicest farming land in SAN LUIS OBISPO COUNTY, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

This is one of the best opportunities yet offered to persons who wish to locate in one of the most desirable portions of California. Choice farms for sale in all parts of the State.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 40 California Street, S. F

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plantifni rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

Napa Valley, near Napa City,

240 Acres of Land For Sale.

The whole or one undivided half interest, at thirty-two dollars per acre. Fenced in five fields. Living water in every field. Orchard and Vineyard in bearing of choice varieties. Buildings good. Terms easy. A great bargain.

STERLING & THOMPSON,
Napa City, Cal.

FOR SALE CHEAP.

A place of one hundred and seventy to two hundre acres, adjoining Yountville, Napa valley, near R. R. depot. There is on it a bearing vineyard of foreign Grapes; also, small orchard of Cherries, Peaches and Apples. The land is bottom and hill. Over two thousand cords of wood can be cut. Will be sold in part or whole, to suit. Apply to

G. C. PEARSON,
Vallejo, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,

No. 166 TEHAMA STREET,

Cor. Third, bet. Howard and Folsom, San Francisco

eowhp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 29, 1876.

We have to note a brisker trade for the past week than has been experienced for several months. The advance in Wheat has resulted in large transactions at improved figures, and in general the beginning of active work in the fields and flocks in many parts of the State, has had an influence in awaking city trade in various supplies. The general verdict of the tradesmen seems to be "trade is picking up a little."

During the week the effect of the advance in the cable price of Wheat has been clearly seen. At our last writing the advance was attained, but transactions on the new basis had not begun. Now, as will appear by the sales given below, a handsome increase in price has been gained for considerable lots of Wheat.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	CAL. AVERAGE	CLUB.
Thursday	10s 2d@10s 6d	10s 6d@11s —
Friday	10s 2d@10s 6d	10s 5d@11s —
Saturday	10s 2d@10s 6d	10s 5d@11s —
Monday	10s 2d@10s 6d	10s 5d@11s —
Tuesday	10s 2d@10s 6d	10s 5d@11s —
Wednesday	Wires	down.

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	11s 11d@12s 3d	——
1875	9s 3d@ 9s 7d	9s 5d@ 9s 11d
1876	Wires down.	

The failure of the telegraph wires to-day prevents the completion of our table.

In sympathy with the advance of Wheat and enlarged trade, there is exhibited some life in tonnage, and the engagements for the week have been more than usual and at a higher figure. A ship was chartered for Wheat, Thursday, at 50s, the highest rate in some time. This makes seven ships now under engagement for Wheat, two or three of which completed their cargoes last week. Several of them will take consignments of Barley. The following are among the engagements: Br ship *Canada*, 1,200 tons, Wheat and Flour to Cork for orders, £2 10s; ship *Admiral*, 2,212 tons, Wheat and merchandise to Liverpool, £2; Br ship *Golden Gate*, 932 tons, Wheat to Liverpool, £2 5s; ship *Defiance*, 1,898 tons, Wheat to Liverpool, £2 2s 6d; Br ship *River Lune*, 1,132 tons, has been chartered to load Wheat from Portland to Liverpool at £3 5s; Br bark *Stratheden* has been chartered to load Wheat from Portland to Cork and orders at £3 7s 6d.

It is still reported that engagements have been made for July to November, loading at £3@£3 2s 6d, but we have hut the rumor for it.

As a matter of general interest we introduce the following paragraph concerning the condition of American tonnage, from the New York *World*:

"American tonnage shows a slight increase that is encouraging. Our tonnage total for inland and ocean shows an aggregate of 4,853,732 tons. This is an increase over last year of 53,000 tons, and since 1872, of 416,000 tons. There has been, too, we find, a steady growth of tonnage since the war, and this growth, while it has not kept pace with the country in wealth, population and commerce, has begun to be a growth in the right direction; *i. e.*, that of steam navigation as a substitute for navigation by sails. The number of tons of vessels built during the fiscal year ending June 30th, 1875, was 297,638; of these there were 114 ships, barks, etc., with an aggregate tonnage of 112,000 tons, or 1,000 tons each. There were 323 steam vessels built, aggregating 62,459 tons, and of these 20 were iron steamers of over 1,000 tons each, aggregating 21,631 tons. The iron shipyards of the Delaware, at the present low prices of wages and iron, must acquire great importance as soon as business begins to revive a little."

From the English wheat market there comes assurance that the advance in price is a wholesome increase of value from legitimate causes, and this does much to gild our wheat outlook. The *Mark Lane Express* in its weekly review, telegraphed March 27th, says:

"The tendency to improvement noticed last week has assumed a shape of definite advance in prices, and the caution with which buyers operated lately has been succeeded by a feeling of greater confidence. This improvement is not confined to London, but is shared by all large provincial and the majority of the continental markets. Telegrams from Odessa report a good inquiry, with considerable shipments for continental account. The finer weather at the end of last week had the effect of quieting the nearer foreign markets, as well as those of London and Liverpool; but we are inclined to think that the lull is only temporary, in view of the probable shortness of stocks in France and Germany. Our own country markets continue scantily supplied by farmers, at from two to four shillings per quarter higher. A greatly reduced quantity of English Wheat will apparently be marketed during the next month or so. Feeding corn shared the revival of activity, and both Barley and Maize have risen. Flour has partaken of the improvement, and both here and abroad realize higher prices."

As the California production of Corn is increasing it is of interest to note that during recent years American Corn or Maize has steadily grown in favor in Great Britain and other parts of Europe, where it is used as a substitute for Flour, and for stock feeding purposes. It is said that previous to the present season, we exported no Corn to Portugal, but this year a great many cargoes have been shipped to that country from New York, Philadelphia and Baltimore. Since the first shipment it has rapidly worked its way into favor with the Portuguese, who are now reported to have purchased the bulk of the available supply of White Corn. This being the case, we may find in this European movement an outlet for any surplus corn which we may produce. As our growers are so close to the seaboard, they may be able to secure greater profit from this variety of grass than their brothers in the prairie States, where they are at the mercy of railroad transportation during part of the year.

The following table shows the hay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Weekly Receipts of Domestic Produce.

ARTICLES.	WEEK MAR. 8.	WEEK MAR. 15.	WEEK MAR. 22.	WEEK MAR. 29.
Flour, quarter sacks	17,769	49,083	36,851	29,241
Wheat, centals	64,404	37,351	68,652	57,717
Barley, centals	8,165	8,402	13,465	17,731
Beans, sacks	1,831	2 920	1,299	1,048
Oorn, centals	53	1,367	.....	1,135
Oats, centals	1,056	869	842	1,139
Potatoes, sacks	5,508	9,953	7,672	168
Onions, sacks	738	434	700	413
Wool, bales	60	280	305	1,442
Hops, bales	5	2	40	50
Hay, bales	541	2,183	4,196	3,401

Bags—We advance our quotations for Wheat Bags to 12¼c in answer to a firmer holding. We hear of a sale of 8,000 standard machine sewed at 11¼c cash. There is a report of a sale of 100,000 standard English Wheat at 12¾c for June delivery, which we cannot verify, although such a transaction may have occurred.

Beans—Beans are quotable higher. The receipts are gradually falling off.

Barley—Barley has been firmly held during the week and sales have been made at an advanced figure. At the close the supply of Feed Barley has been more ample and outside figures are hard to reach. We note sales as follows: Large sales of Chevalier for export have been made; 1,900 ctls choice Chevalier for Liverpool, delivered at Oakland at $1.45; 2,000 do good do for Liverpool, $1.40; 10,000 do choice do, $1.45; 2,000 sks Bay Brewing, for local use, $1.30@1.35; 500 do good Feed, $1.25; 400 do fair do, $1.22½, half silver; 250 sks poor Coast, $1.10; 500 do good do, $1.22½; 300 do good Brewing, $1.32½ per ctl.

Corn—Corn has ranged at quotations. We quote sales: 400 sacks White at $1.20; 200 do good Yellow, $1 25 per ctl, half silver; 500 sks large Yellow, $1.25 per ctl; 100 do, $1.22½; 300 sks fair White at $1.20; 150 do do Yellow at $1.25, half silver, per ctl.

Dairy Produce—Prices for Butter are unchanged. Cheese is arriving more plentifully, and the trade is not quite as sharp as has prevailed for the last two months. Full prices are, however, still gained by best grades. Eggs have advanced a point.

Fruit—The supply of Fruit in market at this present time is quite meagre. Apples and Oranges are scarce and dear, while Limes are not very plentiful. Bananas, Pineapples and Mangoes are to be had in limited quantities. No Strawberries are expected before the first week in April, considerably later than usual. Two car loads of Mediterranean Oranges are now *en route* to this city overland. The shipment is unprecedented in years, and is due to the high prices of Los Angeles Oranges now ruling.

Hay—The supply of Hay is ample. The following sales show the range of prices: 38 tons Stock at $13.50; 42 do Wild Oat, $15; 36 do Tame Oat $15; 50 do good Wild Oat, $16; 40 do Wheat and Oat, $18; 40 tons choice Wheat, $19; 50 do fair Barley at $14; 38 tons Volunteer Wheat and Oat at $16.50; 20 do choice Wheat at $19 per ton.

Hops—There have been large sales of Hops for shipment to Australia. First quality are now held at 12½ and 11½ cents bid. We hear of a sale of 20 bales of lower grade at 10½c. The New York market for the week, ending March 17th, is reported by Emmett Wells as follows:

"A fair trade has been doing, chiefly for export account, with prices about the same as last quoted. Over 3,000 bales of Hops have arrived here this week, and yet some people are foolish enough to allow themselves to be humbugged into the belief, through reports circulated by interested parties, that the country is bare of Hops. These reports must be very far from being correct; if not, where do all the Hops come from?"

Oats—Oats are in light supply and have been sold at advanced figures. The market is very firm. We note sales: 400 sks choice heavy Feed, $2.25; 200 sks fair Omaha, $2.10; 200 do do, $2.15. Choice heavy Feed have been sold up to $2.37½, and a choice lot of Oregon Milling at $2.42½; sales of white Oregon Milling have been made as high as $2.50 per ctl.

Onions—Onions have fluctuated somewhat during the week and close at former prices. The quality of the present stock is mostly second-class. We note sales: 17 sks fair Union City, $1.37½; 330 sks Oregon, 75c@$1.25; choice are worth $1.50; 100 sks Union City Yellow, $1.50 to $1.62½ ₱ 100 lbs.

Potatoes—Potatoes are quotable higher than last week, the depression being only temporary. An extreme figure of $2.12½ has been gained for finest qualities. The range will appear in the following sales: 400 sks good Petalumas, $2; 300 sks fair to choice, do, $1.90@2.05; 200 sks good Tomales, $2.07½.

Provisions—The Provision trade is more active. Good Beef is still scarce, but prices all round are unchanged from last week.

Poultry and Game—Poultry has taken another upward turn, as shown in our tables.

Vegetables—A few more hot-bed cucumbers have been received during the week and are selling at high prices. Asparagus and Green Peas are more plentiful and lower.

Wheat—In addition to our general remarks above we show the market by the following sales: 3,000 sks choice Milling, $2; 10,000 sks choice Milling, delivered at Vallejo, $1.95; 2,000 sks fair Shipping, $1.90; 2,000 do good do, $1.92½; 300 do choice Milling, $2; 1,800 sks choice Milling, $2; 1,000 do good do, $1.95; 1,600 do good Shipping, $1.90; another large sale, amounting to 20,000 sks, is reported at $2; 3,000 sks Shipping, private; 1,500 do do, $1.87½@1.92½; 3,100 sks fair Shipping, $1.82½@1.85; 6,600 do Milling, $1.90; 2,000 ctls Shipping, $1.85; 1,600 do choice, alongside, $1.92½; 500 sks Inferior Coast $1.75 per ctl.

Wool—As appears by our table of receipts of Produce, the arrivals of Wool are increasing, but sales have hardly commenced yet. We hear of sales of not to exceed 200 bales from 16 to 20c, but these figures are not yet certain enough for quotations. The Eastern markets are reported by telegraph as follows:

NEW YORK, March 25.—The Wool market is truly in a demoralized condition. The wants of manufacturers are small, as many are well supplied, and others are running on such time that their requirements are very limited. They evince no disposition to stock up at present prices, the goods in market not warranting such sales, and with lower prices in prospect, they prefer holding off until such time as they can purchase on more favorable terms. Holders, on the other hand, are anxious to dispose of the small supply that remains, and to do that are willing, if the purchaser has credit undoubted, to make quite liberal concessions. Sales of California have been very limited, and the prices realized have generally been low and unremunerative. The transactions of the week have been 26,000 lbs. Fall California, 15@18½c; 50 bales Spring, 29c; 9,000 lbs Oregon, 33c; 13,500 lbs Western Texas, 22½c; 115 bags super Pulled, 33c; 3 000 lbs X do, 35@38c; 10,000 lbs Combing do, 52c; 15.000 lbs fine Wisconsin fleece, 40c; 2,000 lbs Ohio do, 48c; and 10,000 lbs unwashed Smyrna, 22,000 lbs China, 63 bales Rio Grande. 17,500 lbs California Pulled, 4,000 lbs Nevada, 13,000 lbs Western Texas, 2,000 lbs black do, 100 bags super Pulled, and 24,000 lbs mixed Ohio on private terms,

BOSTON, March 25.—There is a fair demand for domestic Wool, but the number of good responsible buyers is limited, and as this is the only class to whom holders are willing to sell in the present uncertain state of credits, prices have been gradually declining, and on all kinds of Fleece Wools prices are from 2 to 3 cents lower than a few weeks ago, and it would be impossible to force sales, except at still further concessions. Good and choice X and XX Ohio and Pennsylvania Fleeces cannot be quoted over 43@45c; XXX and Picklock at 48@50, and medium and No. 1 Fleeces at 44 @48c. Michigan Fleeces have been sold at 40@41c; and these are outside prices for good lines of X Wool. Some lots of new Southern Spring, burry, hut of good staple, sold at 15c, currency. Good and choice California Spring cannot be quoted over 28@32c, and the latter price is believed to be an outside figure. For best lots of Northern, prices are fully 4@5c lower than at this time last year. Pulled Wools have sold to a fair extent, the transactions of the week comprising 189,000 lbs, mostly at 38@40c, for fair and choice Super and X. The supply of Pulled Wools is large, and low grades are quite dull and depressed.

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., March 29, 1876.

BAGS.

Eng. Stand Wht..	11½@12¼
Neville & Co'e...	
Hand Sewed	11½@12¼
24x36	— @—
24x40	— @—
Machine do 24x40	13 @14
" " 23x40	12½@13
" " 22x40	11½@12½
" " 22x36	11 @11½
Flour Sacks ½s	9½@11
" " ⅛s	6¼@ 7
" " ⅛s	4½@ 5
Hessian 60-in	12¼@14½
do 45-in	9½@10
do 40-in	8 @ 8½
Wool Sacks, 3¼ lbs.	45 @50
do 4 "	50 @52½
Stand. Gunnies	— @15
single seam do	— @—
Bean Bags	7½@ 8

CANNED GOODS.

Asst'd Pie Fruits in 2½ ₱ cans.	2 75 @ 3 00
do Table do	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl	— @ 3 50
Sardines, qr box	55 @ 1 90
do bf boxes	3 00 @—

COAL—Jobbing.

Australian, ₱ ton	— @10 50
Coos Bay	8 00 @10 00
Bellingham Bay	— @ 8 50
Seattle	9 25 @10 50
Cumberl'd	15 @— 18
Mt. Diablo	5 25 @8 25
Lehigh	— @22 00
Liverpool	10 00 @11 00
West Hartley	— @14 00
Scotch	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl.	10 50 @ 2 00
Charcoal, ₱ sk	75 @ —
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	@ 21½
Costa Rica per ₱	22½@ —
Guatemala	— @ 22½
Java	— @ 31
Manilla	— @ 21½
Ground in cs	25 @ —
Chicory	27 @ —

FISH.

Sac. Dry Cod, new	4 @ 4½
cases	6 @ 7
do bonelese	8½@ 10
Eastern Cod	7½@ 8
Salmon in bbls	7 00 @ 8 00
do ½ bbls	3 75 @ 4 00
do 2₱ cans	2 25 @2 40
do 1₱ cans	1 25 @1 60
do Col. R. ½s	5 00 @5 50
Pick. Cod, bbls	22 00 @ —
do ½ bbls	11 00 @ —
Mack'l, No. ½s	bls 12 50@ 3 00
" Extra	— @12 00
" in kits	2 20 @2 75
" Ex mess.	4 00 @4 50
" Ex mess. ½bs	—@12 00
Pic'd Herr'g, bx	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, Sta Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Land Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Pulu	— @ 7½

NAILS.

Assorted size, keg	3 75 @4 00

OILS.

Pacific Glue Co	
Neat F't No. 1	1 00 @ 90
Pure	— @ —
Castor Oil, No. 1	— @1 15
Baker's A A	— @1 15
Cocoanut	52 @ 55
Olive Plagniol	5 50 @5 75
do Possel	4 75 @5 00
Palm ₱	9 @ —
Linseed, raw	— @ 70
do boiled	— @ 75
China nut in cs	65 @ 67½
Sperm, crude	1 60 @1 65
do bleached	1 90 @2 25
Coast Whales	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Oleophine	— @ 28
Devoe's Bril't	25 @ 27
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive	— @3 50
Downer Kerose'e	— @ 37½
Elaine	37½@ —
Gas Light Oil	23 @ 25

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochre	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal. White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60

RICE.

China No. 1	5 00 @ —
Hawaiian, ₱	7½@ 7¾
Carolina, ₱	10 @ —

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	22 50@25 00

SOAP.

Castile ₱	10 @ 11¾
Common brands	4½@ 6
Fancy do	7 @ 9

CANDLES.

Grant's	16½@ 17
Mitchell's	20 @ 22

SPICES.

Cloves ₱	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmeg	95 @ 97½
Whole Pepper	14½@ 15½
Pimento	15 @ 17
Gr'nd Allsp pr dz	@1 12½
do Cassia do	@1 50
do Cloves do	@1 50
do Mustard do	@1 20
do Ginger do	@1 00
do Pepper do	@1 00
do Mace do	@2 00
Bowen's Pure Ground ₱	@ 50

SUGAR, ETC.

Cal. Cube per ₱	— @ 12
Circle A crushed	— @ 12
Powdered	— @ 12¼
Fine crushed	— @ 12
Granulated	— @ 11¾
Golden C	— @ 10½
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 70
Hawaiian Molasses	25 @ 27½

TEA.

Oolong, Canton, ₱	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpo'der, Cant.	75 @1 00
do Pingsuey	80 @ 90
do Moyune	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	55 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 ₱	45 @ 67
Japan do, 3 ₱ hxs	45 @ 90
do pl'n bx, 4½ ₱	35 @ 65
do ½ & 1 ₱ paper	30 @ 55

TOBACCO—Jobbing.

Bright Navys	50 @ 65
Dark do	50 @ 55
Paces Tin Foil	— @ 75
Gregory	70 @ —
Ow f Twist	65 @ 75
Light Pressed	70 @ 80
Hard do	50 @ 60
Conn. Wrap'r	40 @ 90
Penn. Wrapper	20 @ 45
Ohio do	15 @ 20
Virgi'a Smok'g	45 @1 00
Fine cut chew'g, kr	8 50 @9 50
Fine cut chewing, buc'ts	75 @
Banner fine cut	— @9 00
Cal Smoking	37 @1 00

TURPENTINE.

Eastern	51½ @55

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by CHARLES SUTRO & CO.]

SAN FRANCISCO, March 29, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 88 to 88¾.

GOLD in N. Y. 114.

GOLD BARS, 900. SILVER BARS, 11 and 15 per cent. discount.

EXCHANGE on N.Y., 60-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, eight to ten per cent. discount.

LONDON — Consols, 93 to 93¼; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per ₱, 72½c@75c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., March [illegible]

BEANS.

Bayo, ₱ qtl	3 50@3 75
Butter	2 00@2 50
Pea	1 75@2 12½
Pink	— —@2 50
Sm'l white	1 85@2 00

BROOM CORN.

Common, ₱ ₱	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ ₱	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per ₱	22½@ 26
Point Reyes	27½@ 30
Firkin	25 @ 27½
West'n Reserve	16 @ 20
New York	— @ —

CHEESE.

Cheese. Cal., ₱	13 @ 16
do Old	10 @ 15
Eastern	15 @ 20

EGGS.

Cal. fresh ₱ doz	— @ 27½
Ducks'	— @ 25
Oregon	22½@ —
Eastern	20 @ 22½

FEED.

Bran, per ton	— —@20 00
Corn Meal	29 00 @30 00
Hay	15 00 @18 00
Middlings	22 50 @— —
Oil cake meal	— —@37 50
Straw, ₱ bale	— — @ 65

FLOUR.

Extra ₱ bbl	5 75 @6 25
Superfine	4 75 @5 25

FRESH MEAT.

Beef 1st quality ₱	8 @ 10
Second do	5½@ 6½
Third do	3½@ 4½
Spring Lamb	9 @ 10
Mutton	5½@ 6
Pork, undressed	8 @ 8½
do, dressed	11½@ 11½
Veal	5 @ 7
Milk Calves	8 @ 8½

GRAIN, ETC.

Barley, feed qtl	1 20 @ 1 25
do brewing	1 30 @ 1 32½
Chevalier	1 25 @ 1 45
Corn, White	1 15 @ 1 25
do Yellow	1 15 @ 1 25
Oats	2 15 @ 2 37½
Milling	— @ 2 45
Rye	1 55 @ 1 75
Wheat shipping	1 90 @1 95
do milling	1 95 @2 00

HIDES.

Hides, dry	15 @ 16½
do wet salted	6½@ 7

HONEY, ETC.

Beeswax, per lb	25 @ 27½
Honey in comb	18 @ 20
do Strained	8 @ 13

HOPS.

New crop	10 @ 12

NUTS—Jobbing.

Almonds nrd and ₱	8 @ 10
do, soft sh'l	18 @ 18
Brazil do	14 @ 16
Cal. Walnuts	7 @ 11
Chile Walnuts	11 @ 12½
Peanuts per lb	9 @ 10
Filberts	15 @ 16
Pecanuts	17 @ 18

ONIONS.

Union City qtl	1 50 @ 1 75
Stockton	1 50 @ 1 75

POTATOES.

Petaluma, ₱ qtl	1 87½@ 2 00
Salt Lake	— @— —
Sac River	1 62½@ 2 00
Humboldt	1 75 @ 2 00
Early Rose	— @ 3 00
Sweet	— @ 2 50
New, ₱	6 @ 8

POULTRY & GAME.

Hens, per doz	9 00 @10 00
Roosters	9 00 @10 00
Broilers	7 50 @ 9 00
Ducks, tame, per dz	11 00 @12 00
do Mallard	— @5 00
do Canvass	— @5 00
Geese, per pair	2 50 @3 50
Wild Grs, per dz	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, ₱	21 @ 23
do Dressed	22 @ 24
Quail, per doz	1 @2 50
Snipe, Eng., doz.	2 00@2 50
Doves, per dozen	50 @ 75
Rabbits	1 00 @1 50
Hare, per doz	1 50 @2 00

PROVISIONS.

Cal. Bacon, ₱ ₱	16½ @ 17
do Medium	16 @ 16½
do Heavy	— @ 15½
Lard	15 @ 17
Cal. Smoked Beef	9 @ 10
Eastern do	— @ 12½
East'n Should's	— @ 10
Hams, Cal	14 @ 14½
do Armour	15½@ 16
do Worster's	15 @ 16½
do Dupee's	16 @ 15½
do Davis Brand	16 @ 15½

SEEDS.

Alfalfa, Chile ₱	8 @ 10
do California	11 @ 12
Canary	20 @ —
Clover Red	— @ 25
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3¼
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	3 @ 3½
do, Brown	3 @ 3½
Rape	7 @ 9
Ky. Blue Grass	33 @ —
do 2d quality	29 @ —
do 3d quality	— @ —
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	11 @ 13

TALLOW.

Crude, ₱ ₱	6¾@ 7⅛
Refined	8½@ 9

WOOL, ETC.

FALL—

Seedy, ₱ ₱	11 @ 12½
Choice free	12 @ 18
Burry	9 @ 11
Oregon	— @ —

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., March 29, 1876.

POULTRY, GAME, ETC.

Chickens	75 @1 00
Hens	75 @1 00
Eggs, Hens	55 @ 60
do Ducks'	— @ 60
do Farallones	— @ —
Turkeys, ₱ ₱	25 @ 30
Ducks, each	1 00 @1 25
Geese, wild, pair	50 @1 00
Tame, ₱ pair	3 00 @4 00
Snipe, ₱ doz	1 25 @1 50
do English	— @3 00
Quail, per dozen	75 @2 00
Prairie Ch'k s, pr	— @ —
Hares, each	25 @ 50
Rabbits, each	15 @ 20
Squirrels do	10 @ 15
Hams, Cal. ₱ ₱	16 @ 20
do, do, smoked	75 @1 00
Bacon, Cal., ₱ ₱	18 @ 20
Smoked	— @ 10
Cod Fish, ₱ ₱	12 @ 15
Lake Big. Trout	— @ 30
Beef, tend, ₱ ₱	15 @ 18
Corned, ₱ ₱	8 @ 10
Smoked, ₱ ₱	— @ 15
Porterhouse Steak	20 @ 25
Sirloin do	15 @ 20
Round do	10 @ 12
Pork, rib, etc., ₱	12½ @ 15
Chops, do, ₱ ₱	15 @ 20
Veal, ₱ ₱	12½ @ 15
Outlet, do	20 @ 25
Mutton-chops, ₱	10 @ 12
Leg Mutton, ₱ ₱	10 @ 15
Lamb, ₱ ₱	20 @ 22½
Antelope	15 @ 20
Tongues, beef	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, ₱	12½@ —

FRUITS, VEGETABLES.

Apples, per lb	5 @ 8
Pears, per lb	5 @ 12½
Apricots, ₱	— @ —
Peaches, ₱	— @ 25
Plums	— @ —
Pine Apples, each	50 @1 00
Lady Apples	— @ 25
Grapes	— @ 25
Bananas, ₱ doz	75 @1 00
Muskmelons	— @ —
Watermelons	— @ —
Blackberries	— @ —
Cal. Walnuts, ₱	— @ 25
Cranber'es, Org	— @ —
do Eastern qt	— @ 20
Huckleberries	— @ —
Strawberries, ₱	— @ —
Raspberries, ₱	— @ —
Gooseberries	— @ —
Currants	— @ —
Cherries, ₱ ₱	— @ —
Nectarines	— @ —
Pomegranates	— @ —
Oranges, ₱ doz	50 @ 75
Lemons	75 @ —
Limes, per doz	20 @ 25
Figs, dried Cal	12½@ 15
Figs, Smyrna, ₱	25 @ 35
Asparagus, ₱	18 @ 25
Artichokes, doz	50 @ 75
do Jerusalem	— @ 8
Beets, ₱ doz	20 @ 25
Potatoes, ₱ ₱	2 @ 3
Potatoes, sweet	— @ 6
Broccoli, each	10 @ 15
Cauliflower	12 @ 20
Green Peas ₱ ₱	6 @ 8
Cabbage, per hd	15 @ 20
Oyster Plant, ₱	— @ 12½
Carrots, ₱ doz	— @ 25
Celery, ₱ ₱	75 @1 00
Cress, ₱ doz	20 @ 25
Onions	4 @ 5
Turnips, ₱ doz bunches	— @ 25
Brussels Sprouts	6 @ 8
Eschalots	— @ 25
Dried Herbs, doz	30 @ 50
Garlic ₱ ₱	12½ @ —
Green Corn, doz	— @ —
Lettuce, ₱ doz	25 @ —
Mint, ₱ bunch	— @ 12½
Mushrooms, ₱ ₱	@ 25
Horse radish, ₱ ₱	15 @ 25
Okra, dried, ₱ ₱	— @ —
Pumpkins, ₱ ₱	5 @ 6
Parsnips, doz	— @ 25
Parsley	12½ @ —
Pickles, fresh, ₱ ₱	— @ —
Radishes, doz	20 @ 25
Sage	— @ 25
Marrowfat, do	1½ @ —
Huhbard, do	— @ —
Mangoes, ₱ doz	— @ —
Spinage ₱ hskt	— @ 12½
Rhubarb	— @ 31
Green Chilies	— @ 25

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., March 29, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	— —@— —
Tahiti, do	— —@— —
Cal. do	2 50@4 00
Limes, Mexican, ₱ M	15 00@20 00
Malaga Lemons, ₱ bx	— —@— —
Cal. ₱ 100	2 00@ 2 75
do Sicily ₱ b'x	12 00@14 00
Bananas, ₱ bnch	2 50@ 4 00
Cocoanuts, ₱ 100	7 00 @ 8 00
Pineapples, ₱ doz	6 00 @ —
Apples, ₱ box	1 87½@ —
do Choice	2 00 @3 50
Blackberries	— @ —
Figs	— @ —
Huckleberries	— @ —
Strawber's ₱ ch	— @20 00
Pomgranates	— @ —
Raspberries	— @ —
Currants, ₱ oh	— @ —
Quinces ₱ bx	— @ —
Cranberries ₱ bbl	13 00@14 00
Peaches, ₱ bx	— @ —
Pears, ₱ bx	1 75 @3 00
do Choice	— @ —
Crab apples, ₱ bx	— @ —

DRIED FRUIT.

Apples, ₱ ₱	9 @12½
Pears, ₱ ₱	8 @13
Peaches, ₱ ₱	12 @12½
Apricots, ₱ ₱	14 @15
Plums, ₱ ₱	5 @ 6
Pitted, do ₱ ₱	17 @22
Raisins, imported	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₱ ₱	5 @10
White, do	12½@15
Prunes	12½ @17
Citron	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Bees.

Swarming.

Already swarming has commenced among the Italian colonies in the valley apiaries. In the Los Angeles apiary for the past week the Italians have been throwing off swarms as if they proposed to sweeten the world and the rest of mankind. Early swarming is a peculiar characteristic of the Italians. No black swarms have as yet made their appearance that we have heard of.

There are two evils attending matured swarming—uncertainty and loss of swarms by absconding to the woods or to enrich some neighboring apiary, and uncertainty on account of the state of the colony, the season or weather. Some seasons they will not swarm at all; others they will swarm too much, so that they become very weak and sometimes destroyed or become worthless. They require constant watching, and should the apiarian have many of them, several swarms may issue at the same time and perhaps settle together, or may come out so close to each other that he cannot attend to hiving all and thus some are lost. Artificial swarming or dividing obviates all these difficulties. We will briefly describe the operation:

If you wish to divide but one swarm, remove from it about one-third of the frames that are filled with comb, with the queen and bees adhering. Place them in the middle of your new hive, and empty comb or frames on either side. Then remove the old hive two or three rods, and place your new one where the original one stood. This should be done about the middle of the day when the bees are out at work, so as to catch them when they return. Care should be taken to leave plenty of eggs and young brood in the old hive, so that its occupants can rear another queen. If you had four or more colonies, take two or three frames with the bees adhering from each of four hives, taking care that you do not remove a queen. Three or four of the combs thus transferred should contain eggs and brood. After placing them in your new hive remove the fifth colony, which should be a strong one, and place your new one in its place. In about ten days the queenless part will have finished their queen cells, when all but the largest and best formed should be destroyed for fear of swarming. Do not divide too much so as to weaken your colonies. You should remember that the great success in bee keeping is in strong swarms.

Bees consume large quantities of water when building comb and rearing brood. Want of it, it is said, will produce dysentery among them. —*Los Angeles Herald.*

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,

19 New Montgomery Street, S. F.

☞Grand Hotel Building.

Allen's Planet Jr.

SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes. They "sow like a charm;" *no packing* of seed in the hopper, *no crushing* it, *no pouring* or *waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, *no "skips," no noise, no equal!* The Double Wheel Hoe works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable Combined Machine possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our New Horse Hoe, perfected after ten years of experiment, saves most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. *We must have a Live Agent in Every Town.*

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application,

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

100,000 BLUE GUM TREES

FOR SALE.

Grown in open ground and of most excellent quality—FAR SUPERIOR TO ANY BOX GROWN PLANTS—offered at Greatly Reduced Rates.

500,000 SEEDLINGS AND BOX GROWN TREES

In fine order, at ten and fifteen dollars per thousand. All trees delivered on wharf in San Francisco at nursery rates. We wish it distinctly understood our trees for forest planting are RESPONSIBLE NURSERY STOCK. Address

W. A. T. STRATTON,

PACIFIC FOREST TREE NURSERIES,

Petaluma, Cal.

BAY NURSERY,

OAKLAND, CAL.

Lock Box, - - - 331.

JAMES HUTCHISON, Proprietor.

[Established 1852.]

Has for sale an Immense Stock of EVERGREEN TREES, SHRUBS and FLOWERING PLANTS at GREATLY REDUCED PRICES. Monterey Cypress Seedlings from two and a half to five dollars per hundred. Two and three year plants two to six feet, twelve and a half to twenty-two dollars per hundred. Chinese Arbor Vitæ, twelve to sixteen inches, eight dollars per hundred.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Benrre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Guigne Marbree, Grosse de Mezel and Noire Luisante.

Chestnut: Marron de Lyon and Combale.

Walnut: Præparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS; all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Arsucarias, Pines, Cypress, etc.; Fine assortment of Camellias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

ROSES 700 SUPERB VARIETIES ROSES. Half a Million Greenhouse Plants. Mailing Plants a Specialty. Illustrated Catalogue Free. E.Y. TEAS & CO. Richmond Ind.

BLOOMINGTON NURSERY, F. K. Phœnix, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

W. R. Strong, Seedsman. Established 1857. 1876. Robt. Williamson, Nurseryman, Established 1865.

SEEDS. W. R. STRONG & CO. TREES.

S. F. Office, 418 & 420 Clay St., Sacramento Office, 8 & 10 J St., Nursery Grounds, Sacramento Co

GREAT REDUCTION IN SEEDS.

Seeds heretofore retailed by all dealers at Ten cents per paper, we will now furnish at Five cents. They will be forwarded by mail, postpaid, to any part of the United States without extra charge (except on heavy Seeds, such as Peas, Beans and Corn; on which postage will be added). This will cover Vegetable and Flower Seeds. Also, a great reduction on all higher-priced papers. Money should always accompany orders, and may be forwarded in registered letters, or by postal orders at our risk. Our assortment is probably the finest on the Coast.

Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, W. R. STRONG & CO.. House in San Francisco, STRONG & WILLIAMSON.

ALFALFA a Specialty, and furnished to the trade, or in small quantities, at lowest possible rates.

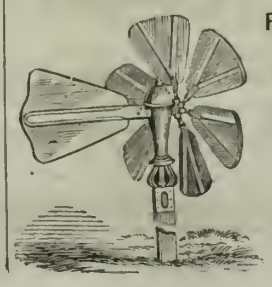
FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

*** My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

SEEDS

GROWN AND IMPORTED BY

AUGUSTUS B. TABER, Toledo, Ohio.

Send for a Price-list.

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

Our Combined WHOLESALE List of

EVERYTHING FOR THE GARDEN!

(Seeds, Plants, Florists' Requisites, etc.)

For the TRADE ONLY, mailed free on application.

Peter Henderson & Co.

35 Cortlandt Street,

NEW YORK.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL.

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

FRANK BROS. & CO.,

IMPORTERS OF

AGRICULTURAL IMPLEMENTS,

349 Market Street, San Francisco.

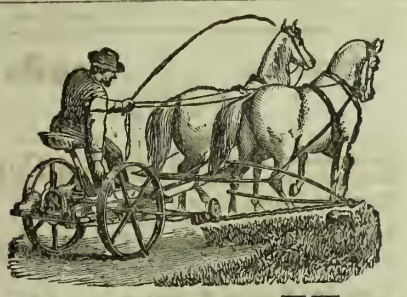
SOLE AGENTS FOR THE

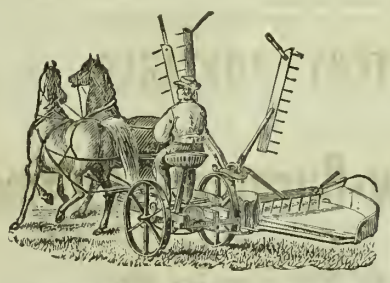
Genuine Wood's Machines, La Belle Farm and Freight Wagons, Sweepstake Thresher, Coate's Sulky Rake, Buford's Gang and Sulky Plows, Collins' Cast Steel Plows, Black Hawk Single Plows, etc., etc.

WE ALSO HAVE A FULL LINE OF

WOOD AND STEEL GOODS, SUCH AS RAKES, FORKS, SHOVELS, ETC., ETC.

In fact, everything needed by Farmers. Dealers and Farmers, examine our Prices, as they are the Lowest on the Coast.





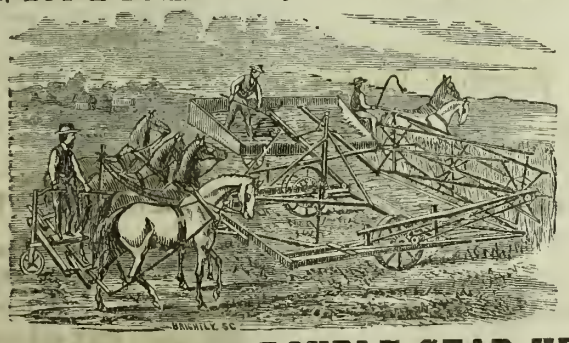
Buckeye Mower and Reaper.

The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merits. They will do better work and will outlast two of almost every other make of machine.

☞ **Farmers, BUY A BUCKEYE in preference to all others.**

With Adjustable Reels. IRON WHEELS.

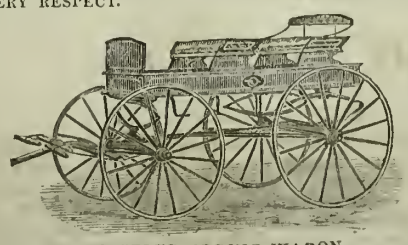


SHORT FRAMES. Springs to raise Cutter-bar.

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.

SCHUTTLER FARM WAGON.



SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

MARCUS C. HAWLEY & CO.,

San Francisco and Sacramento, Sole Agents for the Pacific Coast.

50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted.** 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

DO YOU want employment at home, in a NEW, RELIABLE business, paying LARGE PROFITS Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

FARMERS write for your paper.

LINFORTH, KELLOGG & CO.,

3 and 5 Front Street, - - - - San Francisco.

WM. ANSON WOOD'S EAGLE MOWER.

RUSSELL PEERLESS MOWER.

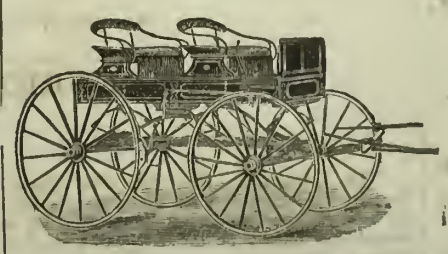
WM. ANSON WOOD'S EAGLE MOWER,

Now acknowledged to be the LEADING MOWER ON THE PACIFIC COAST. First—From its durability and strength, being constructed of iron and steel. Second—From the rapidity of its motion, cutting all kinds of grass. IT WILL ALSO WORK ON VERY UNEVEN GROUND.

RUSSELL'S PEERLESS MOWER,

New Improved, with Rear Cut, High, Broad Wheels and Covered Frame. It runs the lightest, has less side draft and the gearing is better protected than any machine in the market. There is less danger of breakage and no fear of stoppages by dirt dropping into the cogs.

A Full Supply of Extras for the above Machines Constantly on Hand.



FISH BROS.' FOUR SPRING WAGON.

FISH BROS.' PLATFORM SPRING WAGON

FISH BROS. & CO.'S

PACIFIC FARM, SPRING AND HEADER WAGONS.

The best painted, the best proportioned, the best ironed, and the Best Wagon on Wheels. We can sell a BETTER SPRING WAGON FOR LESS MONEY than any firm in California, comprising Two Spring "Specie Basis" and Platform Spring Delivery Wagons; Three and Four Spring Express Wagons, both with plain and Sarven's Best Patent Wheels.

LINFORTH, KELLOGG & CO.,

3 and 5 Front Street, S. F.

THE ALTHOUSE WINDMILL

Was Awarded the First Premium for Mill for all purposes, at Missouri Grand Exposition, Sept., 1875; also, Silver Medal for best governed Mill, and First Premium at California State Fair, and Stockton District Fair, Sept., 1875, at Iowa State Fair, 1875, and at Wisconsin State Fairs, 1874-75.

IN A LIGHT WIND.

We guarantee that any one using our Mills can retire at night feeling no uneasiness—no matter how hard the wind may blow—and rise in the morning, not to look upon a wreck, but a perfect working Mill ready to perform its task. THE MILL SPEAKS FOR ITSELF.

PERFECTLY SELF-GOVERNING,

Reliable, Durable AND Ornamental.

"It has no equal; complete in all its parts."

CONCORD, CONTRA COSTA CO., March 2, 1876.

MR. L. H. WOODIN, Sacramento, Cal.

Dear Sir:—The Althouse Windmill I purchased of you exceeds my most sanguine expectations. It runs *light* and *strong*, and does its work to my utmost satisfaction. As a self-regulating mill it has no equal; in fact, it is almost, or quite perfect. *Its workmanship is complete in all its parts*, and it is all the most exacting could desire in a first-class windmill. I take pleasure in recommending it to all who contemplate purchasing. I remain yours, etc., B. F. BEEBE.

"Look no farther, for it is good enough."

SUISUN, SOLANO CO., February 28, 1876.

MR. L. H. WOODIN, Sacramento, Cal.

Sir:—Your agent, Mr. Stephens, put up for me a 10 foot mill, with a guarantee that it was to do all you claim for it in your circulars, or no pay. I have become satisfied perfectly, as the mill has more than met my expectations. *It will run in lighter wind than any mill I know of*, and will pump right along in the heaviest gales. I would say to any one wanting a windmill, look no farther, for it is good enough.

Respectfully yours, DAVID HALE.

Best on this Coast.

The Marysville *Daily Appeal* says: "No mill ever brought to this Coast can excel it particularly in its self-regulating merit and ability to work quietly and steadily in the most violent storms. It would be an ornament to any farm or home."

For further particulars, address

L. H. WOODIN, Sacramento, Cal.,

Proprietor for California and Nevada.

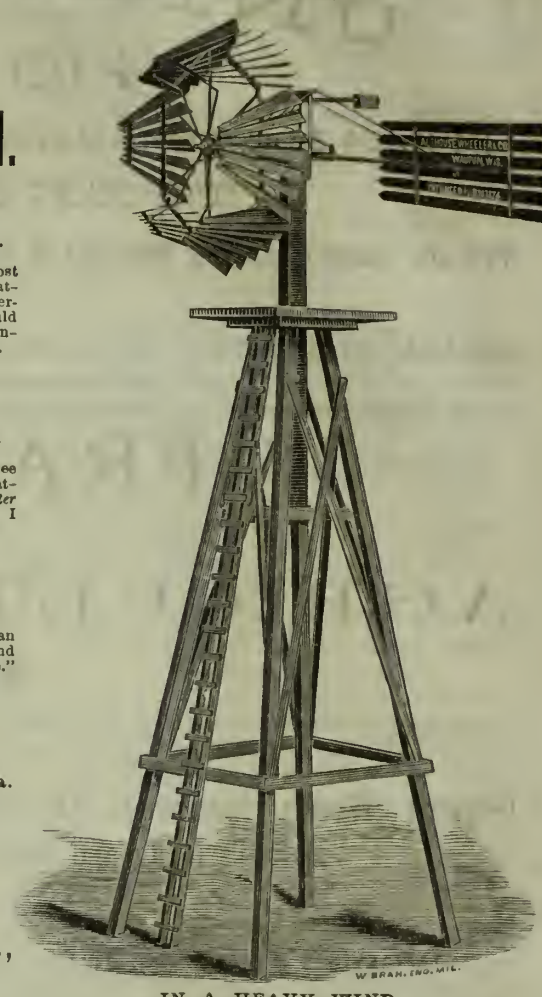
SEND ORDERS DIRECT TO

BAKER & HAMILTON, Gen. Agents,

Importers of Hardware and Agricultural Implements,

SAN FRANCISCO, or SACRAMENTO.

☞Active and Reliable Agents Wanted for every County in California and Nevada.



IN A HEAVY WIND.

Heavy wind moves the fans backwards. In light wind the weight moves them forward, thus giving the Mill an almost unvarying speed. The vane being large, it is impossible for the Mill to get in a position in which it is not ready to work. Send for Circulars and Prices.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns. Silver Grey Dorkings, Houdans, Silkies, Black Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

OAKLAND Spring Balance Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

Dewey & Co. {224 SANSOME ST} Patent Agt's.

ENRIGHT'S PATENT PORTABLE

Wood and Straw-Burning Engines.

Patented July 20th and November 2d, 1875

Burns Wood or Straw without change, and Coal by changing two plates. Took the Premium at the California State Fair, 1875, as the Best Straw-Burner.

Pioneer Builder of the First Portable Thresher Engine on the Pacific Coast, 1861.

PATENTEE AND BUILDER

OF THE

Best Portable Straw or Wood Burning Thresher Engines, 1876.

Send for Testimonials and Price to

JOSEPH ENRIGHT, San Jose, Cal.

SHERIFF'S OFFICE, SACRAMENTO, Sept. 21, 1875.

MR. J. ENRIGHT—*Dear Sir:* The Straw Burning Engine I bought of you, and which was used in Yolo County, has given us perfect satisfaction. It is everything you represented. We have had no difficulty in generating all the steam required, and the amount of straw consumed can hardly be missed. We find it much safer, on account of fire, than a wood-burner. Many persons, both threshers and farmers, have come to see it run, and all express themselves highly pleased. The opinion of all was, that it is just what we need, being safe and economical. H. M. LARUE.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

POND LILIES,

WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,

Pacific Forest Tree Nursery, Petaluma, Cal.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New } Sweet Corn.

Early Canada, Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns. Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

NOTICE TO THRESHERS.

WANTED—TO EXCHANGE,

A Rice's Straw Burning Engine for a Wood Burner.

For further particulars address J. W. RILEY, care of Dewey & Co., 224 Sansome St., San Francisco.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, APRIL 8, 1876. [Number 15.

Harvesting Machinery.

Just now it is timely to present our readers notes of novelties in harvesting machinery. Soon the fields will be scenes of lively work, and now is the time to prepare for it. In our visits among the city estsblishments we found at Frank Bros. & Co.'s, 349 Msrket St.,'a most magnificent piece of harvesting machinery. It is a new self binding reaper, made by the well known Walter A. Wood company. As the theme is so new to many of our readers we choose it for illustration on this page.

The general contour and method of this machine oan be learned from a study of the pictnre. The following are some of the points of its working:

The binding is done with No. 21 annealed wire, which is a little finer than ordinary broom wire. (In 1875 No. 20 was nsed, but it is found that No. 21 is of ample strength.)

Two arms compress the bundle, while a third puts the wire around and twists or ties it, when it is thrown ont by one of the arms and laid on the ground about 12 feet from the stsnding grain.

The binder delivers a bundle every 10 feet, but the driver can stop it so as to rnn any desired distsnce more than 10 feet, until a suitable sized sheaf is gathered.

The driver, without lesving his seat, snd while the machine is in motion, can by means of a lever instantly move the binder forward or bsck, so as to always have the band in the center of the bnndle, no matter what the length of the grain.

The mschinery in the binder moves veryslowly, so that there is but little friction, hence little liability to wear or breakage.

The introducers of the new self binder are very confident of its excellence from many severe tests to which it was put dnring the last season at the Esst. It is sdvanced as a most effective labor saving machine. We are assured by Frank Bros. that with one man, (the driver) the machine will cut and bind 12 to 15 acres per day. Concerning the use of wire in binding they say: "In threshing the grain the wire band is cnt and held by the shears that cuts it and is thrown out, or it can be allowed to pass through the thresher and out with the straw, doing no injury to the thresher, as the wire is annealed and does not bresk. We guarantee to pay twice the amount of any damage that may occur to the threshing machine, or tc stock that the straw is fed to after being threshed that arises from the use of the wire." We call the attention of our resders to the machine as worthy of their careful examination.

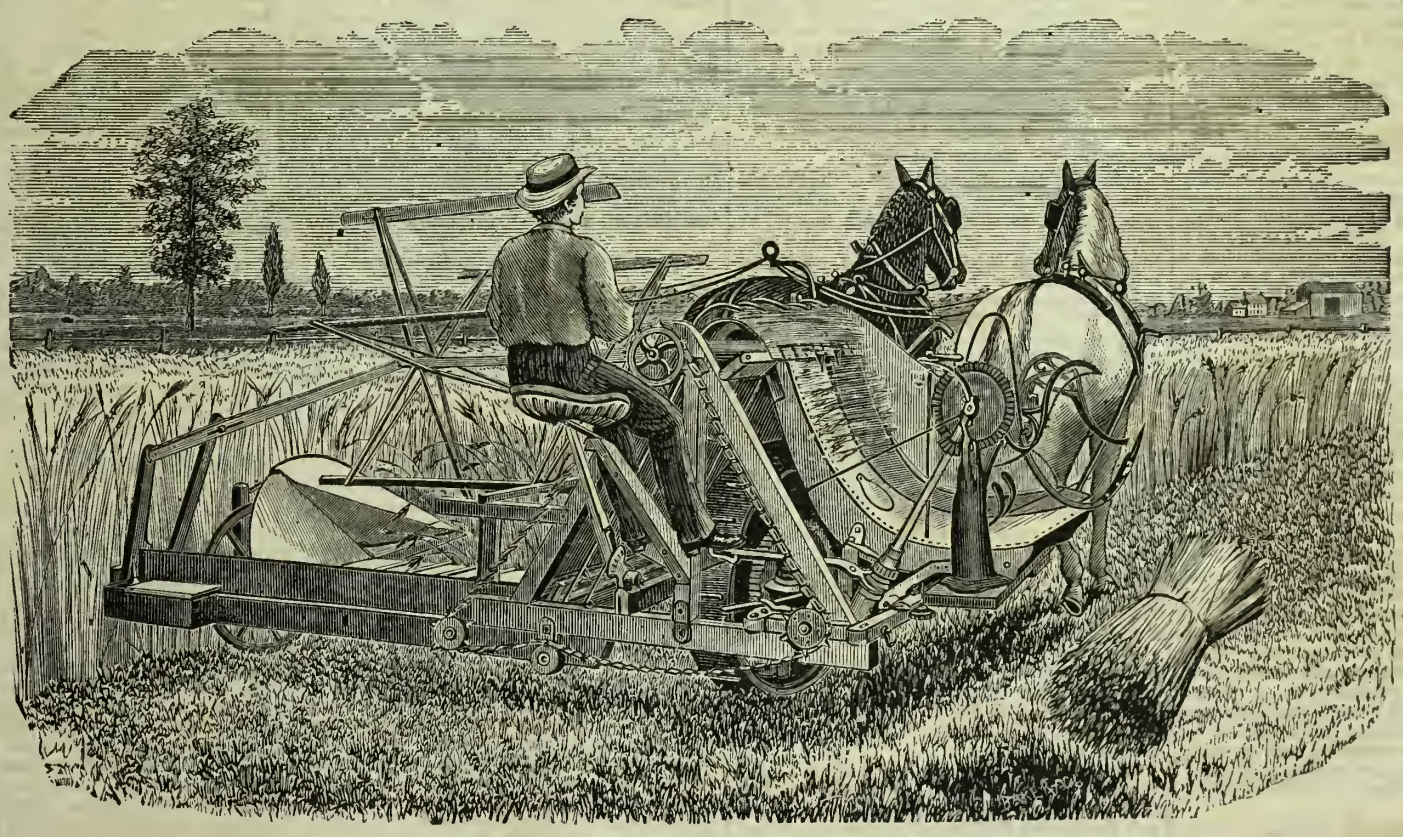
Other Machines.

At Frank Bros. & Co's establishment we saw the famous Walter A. Wood's new mower and self rake reaper. During the year 1875 these machines have won new lanrels. The report from the New York factory is thst 3,000 more machines were sold in 1875 than the previous year, which shows progress and is a surety of excellence. When asked to what they attribute this advancement of the machines, the manufaotnrers reply: "Not alone to their superiority of principle and manner of combination, but also to their general excellence, their simplicity of construction, ease of draft, facili y of management, qnality of work, strength and durability." These are good points and entitle a machine to a victory. We gave our readers a full description of these machines in our issue of April 10th, 1875, and are glad to learn that they are doing so well.

Frsnk Bros. & Co.'s, 349 Market St., S. F., is a fine place to psss an hour when one is on the lockout for agricultural machinery. Their stock is very full and well arranged to be thoroughly examined. We trnst our readers will note the fact.

Encourage Them.—But for the lsbors of our agents, the Rural Press conld never have flourished and grown to its present dimensions. Its usefulness wonld have been to-day comparitively insignificant. We regret the necessity of agents, because it is expensive in one sense, and yet it really cheapens the price of a good psper, because they increase the number of subscribers, and permit of printing a good paper at a reasonable rate. If we had but 2,000 subscribers we could not furnish them a paper like the Rural Press for less than $10 a year. The agents have hard work, they earn every cent of their money at the highest rates of commissions allowed. We cannot sford to do without them. We ask our friends to assist them. We do not propose to send them generally but once a year over any section of the ccuntry. They ususlly report something of interest to the general reader wherever they go. They should be welcomed wherever they go, and parties should do their best to pay their subscrip'ions when called on; although no one should wait for the agent to call for their subscription. Give the agents information that will help them in their work. We try to avoid sending any but good men; if we should fail in this we wish our subscribers to notify us at once.

What do we Eat?—Incident: Coming down the street to-day, we saw the driver of a baker's wagon take up a loaf of bread, use it to hammer his horse into a trot, and then throw it back among the other loaves. Reflection: Life is uncertain. We may have that loaf for lunch to-morrow.



WALTER A. WOODS' REAPER AND SELF-BINDER.

Thoroughbred Cattle.

We enjoyed very much the meeting of cattle breeders, of which we print a report elsewhere The spirit manifested snd the chsracter and intelligence of the breeders present are most hopeful indicstions of the future of thoroughbred stock on this coast. A cattle breeder who is true to tbe possibilities of his occupstion must of necessity be a man of intelligence, of careful observation and of acute perceptions, because the agencies employed are so subtle and so powerful for good results when well applied, and so powerful for the opposite when misdirected. It is becsuse we were able to discern qualities in the members which will secure the results of skillful breeding that we are disposed to favor the organization and promote its efforts.

A great part of the time of the meeting was occupied in discussion relative to the coming sale of thoroughbred cattle at Sacramento, April 20th. This will be a most important event in the history of the society. The sale is undertaken in the interest of promoting the appreciation of fine stock among the cattle breeders of the coast. We le rned from the frank expression of sentiment of members that the sale will be an honest and open transfer of property. The honor of the society depends upon upright dealing. As this is the recognized disposition of the members we are glad to recommend the occasion as one in which our breeders can enjoy the opportunity of securing such animals as they desire, at snch prices as may be named at the competitive sale.

Orange Hedge.—Orange trees make the best kind of hedge, are evergreen, very hardy snd tough, and resist when quite small stock of any kind. Nothing would be more beautiful for garden hedges. Save your seed and plant them in boxes, and transplant into hedge rows and soon you will have a durable and good fence.—*Ventura Signal.*

Let every farmer read the advertisement in this paper of "Chufas and Japan Peas." If one-half that is claimed for these crops by the best authorities be true they are indeed a valuable addition to the sgricultural products of California.

Irrigation in India.

The Academy of Sciences held a meeting on Monday evening. President Davidson delivered the first of his lectures on the subject of irrigation. During his recent travels abroad Prof. Davidson has made a study of the systems of irrigation in the different countries visited and will address the Academy on each of them. The paper on Monday was devoted to Indian irrigation and was extremely rich in interesting details, and in the value of its conclusions applied to the necessities of artificial water courses in California. The lecturer said that the Indian canals had not paid private capital, and had been assumed by the government, which is projecting and building a magnificent system of irrigating works. The people of India are deficient in self reliance, but have a plodding industry, and look to the government for succor in seasons of drouth. Their implements are so contrived as to secure minimum results from a maximum of labor. The government engineer makes his agreement in the native language or dialect with native contractors, who furnish the laborers and control them, and, though these generally contrive to do as little work as possible with the least effort, contracts are filled in time and specifications. The lecturer described the Gangetic plains and other valleys of India, which present many features similar to the country adjacent to the Rocky mountsins and Sierra Nevada range. The Himalaya Mountsins are the great storehouse for the gigantic arterial water system, and the mountains of the Pacific slope are to furnish inexhaustible supplies for our valleys. The completion of the government engineering projects will add to the commercial prosperity of British India and add to the stability of the government. The English engineers found themselves obliged to discard the precepts of science in some particulars. Professor Davidson stated that he inspected all the works in the country, under governmental auspices, and had every facility to note the labor and scientific problems. Though so lazy that an Englishman's patience would be exhausted and an American go wild, the skilled laborers execute masonry and other work equal to our own. They have no machinery. The common laborer receives six cents a day, the skilled mechanic twelve cents.

The Professor gave it as his conclusion on the subject, that the hydraulic architecture to be built in California, could be constructed at less cost in the aggregate than those in India. We have steam and machinery. Forty thousand men were at one time employed by the Indian government on the canals. In answer to a question from a member, Professor Davidson stated emphatically that his calculations were on the basis of white labor at fair wages, and not Chinese cheap competition, a question and answer which proved the exciting cause of a little scientific smiling. The paper, which was very elaborate, was illustrated with maps, and was listened to with the closest attention. A vote of thanks was passed.

CORRESPONDENCE.

Botanical Excursions.

[By J. G. LEMMON.]

No. 2.—The Northern Valley and Lassen's Peak. Part 1st. Sierra Valley to American Valley.

"I wish you would explore Lassen's peak again," writes Dr. Gray. "What I have seen from there but sharpens the appetite for more."

Some three years ago I visited Lassen's peak, on one of my first botanical trips. I was accompanied then, for the first time, by the genial gentleman who has so often been my companion since, Prof. E. L. Case. Starting from his then home, in Indian valley, we passed *via* Greenville, 70 miles, through Big Meadow valley, and climbed old Lassen, spending 10 days in the exploration, and experiencing many interesting adventures—particularly that of sliding from the monument of Lassen down on the snow, over a half mile in less than a half minute.

We brought home a few plants only in a copy of *Harper's Monthly*, but among them were several new to California, one interesting *Cyclademia*, collected but once before, and a very beautiful, sweet-scented *Carydalis*, entirely new to science. It was perhaps the presence of these plants in the Harvard herbarium that caused Dr. Gray to make the above request.

I had agreed already to make a general collection of Sierra flora for Dr. Vasey, to exhibit at the Centennial, so to go again to Lassen's peak just suited me. Prof. Case being engaged in teaching, I solicited the company of Mr. John Larsen, a young dry-goods clerk, just then out of employ. Larsen was a new hand at mountaineering, but he soon learned to be very efficient in the care of the team and preparation of food, as also in collecting and preparing plants. A strong, and, we trust, lifelong friendship is based upon that grand excursion.

We started from Sierra valley, June 18th, 1875, equipped with all the added articles that previous campaigning suggested, and certainly the passer-by could not mistake our business, or think we were going to suffer from hunger or cold on the trip. We knew it would be a grand excursion, for we were to pass through a long chain of the most delightful valleys in all California; and then at the far end of the east towered up Lassen's peak, ever snow-crowned, and commanding a view not only of northern California, but many miles over the border, into Oregon.

With hearts elate we set out, and, with the editor's permission, the RURAL readers are again invited to accompany. But first let me give you a foretaste, a cursory glimpse of the country, lest you complain of the hardships endured before reaching the lovely scenes.

Prince Sierra and His Jewels.

The Sierra Nevada is a rich, lordly be-jeweled prince among mountain ranges.

Reclining in state, like an Oriental monarch, upon the bosom of the great treeless plain of Western America, it is clothed from end to end—600 miles—and from base to base—140 miles—with a dense forest of evergreens, like a royal robe. This enrobing forest—the noblest in North America—is perforated along its center line by a thousand peaks, rising through the royal mantle into the Alpine region of eternal winter, and is rent along both slopes by a million valleys, depressed through the garment into the middle region of the changing seasons.

The peaks are the brilliant diamonds of this wealthy prince; the valleys, the hidden pearls.

The former flash upon the voyager in the far Pacific and the Utah desert, but through the emerald setting of the forest must the explorer search for the latter resplendant gems.

Differing from a few acres to 400,000 acres in extent, these valleys floored with alluvial soil and carpeted with meadows, form the true wealth of of the Sierra. To be sure the heart of the Sierra is golden, but where one mines into it and becomes a happy millionaire, a thousand dig as deep and become wretched mendicants. The gold first discovered led to the rapid upbuilding of camps and towns in the high ravines, now fast disappearing. The wealth of the valleys lately developed, is now attracting a population which will ever increase.

To work the mines, their debris must be spread over and ruin the valleys. The voice of fast growing communities is now loudly heard in rightful protest.

Prettiest of all these valleys, and also least affected by mining operations, are those found on the east side of the north end of the Sierra, which region may be taken for the broad breast of Prince Sierra, decorated with these bright jewels.

Five of the largest, arranged in nearly a right line, form center decorations or orders of nobility, surrounded by gems of lesser size and varied lustre, according as they are on the side toward the peaks or toward the plains.

These large valleys, while having a generic character of great fruitfulness, differ in attractions for the visitor, owing to the difference of latitude, origin, elevation, contour, area, population and surroundings. Let me bring these valleys into one view for comparison of statistics—otherwise dull and valueless. The first on the south, 20 miles from the C. P. R. R., is Sierra valley, drained by the upper streams of the south fork of the Feather river. Latitude, 39¼ degs. Elevation, 5,300 feet; contour, a Turkish crescent. Area, 300,000 acres. Population, 2,000. Towns, Sierraville, Randolph, Loyalton and Beckworth. Sentinel peaks, (or crowning diamonds—to continue the figure,) Webber, Haskall, Beckworth and Volcano.

The second, 16 miles northwest, is Mohawk valley, drained by the south fork of the Feather. Elevation, 4,500 feet; shape, a three linked Odd Fellow badge; area, 2,000 acres; population, 400; towns, Jamison and Eureka; peaks, Haskall and Eureka.

The third, 12 miles farther north, is American valley, drained by Spanish creek. Elevation, 3,200 feet; form, a Masonic triangle; area, 8,000 acres; population, 800; town, Quincy; peaks, Clermont, Spanish and Grizzly.

The fourth, 12 miles farther northwest, is Indian valley, drained by the middle fork of the Feather. Elevation, 9,300 feet; form, a four armed Maltese cross; area, 16,000 acres; population, 1,600; towns, Taylorsville, Crescent and Greenville; peaks, Kettle, Huff's and Greenville.

The fifth and last, 12 miles farther northward, is Big Meadow valley, drained by the north fork of the Feather. Latitude, 40½ degs.; elevation, 4,000 feet; contour, a heart shaped shield; area, 400,000 acres; population varying from a few families in winter to 500 souls in summer; town; Prattville; peaks, Keddie's, Black, and the over-towering-Lassen.

Sierra Valley.

In an article, "Sierra Valley and some of its New Flowers," published a year ago in the RURAL, I partially described this valley, so we will omit farther words now. While we scamper along the smooth roads northward, through the entire length of its crescent, the reader may look over its level of waving meadows and grain-fields, cross-barred with substantial board fences, and dotted with farm houses; he may gaze across at the heavy pine forest on the west and speculate upon the vast wealth of lumber in those tall, straight stemmed trees, or raise his eyes higher and contemplate the grandeur of the towering encircling peaks; then let him tell me if I exaggerate the beauties and wealth of Sierra valley.

Mohawk Valley.

Following down the south fork of the Feather river, rising in Sierra valley, we enter Mohawk valley on the east side of the middle link of the badge described, or middle valley of Mohawk. In the upper, on the east side is a celebrated sulphur spring, and one of the finest hotels in the mountains. Across the valley are the gravel mines and settlement of Mohawk. On the west side of the middle link, boring into the heart of Eureka peak, are the long tunnels of the Plumas Eureka quartz mine, the richest deposit of gold yet developed in the Sierra. Always paying increasing dividends, a few years ago it passed into the hands of an English company, the same that owns the Sierra Buttes mines and several others—who built mills, employed a large force of men, and now realize tenfold more profit annually. A new town, Eureka, grew up at the mouth of the tunnels, and a large and constant demand for the products of the valleys far and near. A tri-weekly freight and express plys between Eureka and Truckee, crossing Sierra valley, and a semi-weekly stage connects northward to Quincy and beyond.

On the east side of the lower link, or Teft's valley, are the Argentine quartz mines, employing several hands, who are abundantly supplied with food from the rich vegetable gardens of the valley.

Each of these little valleys and the open woods adjoining are studded with rare mountain flora, particularly the sweet Washington lilly and the modest *Fritillarias recurva* and *pudica*. In Culver's orchard, in the settlement of Mohawk, by the upper valley, grows a new species—or at least a very remarkable variety—of violet, resembling in flower the *viola lobata*, but the stem is from 10 to 15 inches high and the leaves entire and cordate. In a cool spring and its brook near, grows the new *Carydalis Caseana*, of which, more hereafter.

American Valley.

This beautiful vale is one of the first settled on the eastern slope, owing to the gravel mines on the head waters of Spanish creek, still paying well, and it has been steadily appreciated as a home by a thriving people, who established the largest town and capital of Plumas-Quincy, in its comparatively small enclosure. Quincy has many fine residences and two large hotels necessary to accommodate the throng of summer visitors, that escape annually from the heats of the Sacramento valley.

Larsen and I were most hospitably entertained during our exploration of American valley and Clermont peak, by Mr. Sam Lee and wife, residing on a fine ranch south of Quincy. On this ranch grows the robust and lately discovered *Eriogonum ursinum*, and near it the new *Solanum Zanti*.

Three and a half miles south of Quincy is a rich little valley called "Illinois ranch," owned by Mr. John Thompson, a successful farmer and experienced breeder of fine horses. His Plumas colts are beautiful and serviceable animals, always selling at high prices—some of them away up to a thousand dollars.

Mrs. Thompson is a great lover of flowers and takes the greatest pains and delight in their cultivation. Her gardens, walks, and conservatories are, by far, the most extensive and finest of any in the mountains. She prizes equally well our native flowers, and has included a large number of them in her fostering care. Mrs. Thompson has a genial friend and co-worker in the person of Mrs. Dr. Cate, residing in Quincy. Among other achievements in the floral line, Mrs. Cate has produced a beautiful white leaved geranium, and has succeeded in bringing the famous *Darlingtonia* into bloom.

At the bare mention of that last plant, a long train of pleasant scenes and incidents come trooping into mind, connected with Butterfly valley, one of the attendant gems of American valley, and next to be described. But already this number is long enough for its kind, and we are only half way to Lassen's peak. Varied reading is what gives worth and popularity to a journal like the RURAL, so I must not crowd out other contributors, who may have much to say of more interest to the many.

(To be Continued.)

San Bernardino.

EDITORS PRESS:—Describe southern California? Give impressions of its people? Impossible! I cannot do it now, that is, acceptably. It will require time and due consideration to so temper my language as to win belief, and so become of real use to others. I never intend to over-praise California scenery; I claim a due appreciation of it all, and try to interpret the language stamped upon it by the Author of Nature. Others see and interpret differently. "The world within, creates the world without," says an old author, and he is often right. To some, this is a very bad world; I believe it a good one. Every mountain, valley and plain; every sea, lake and river, has inherent beauty for the appreciative eye, and happy is he who possesses such eyes. I am too amazed at the flora of this semi-tropical region, and too busy studying it to more than pencil a line now. Then, too, it is best for the sake of accuracy to stick to my old practice of writing up my "Botanical Excursions" at the close of the season, when the snows of winter prevent the flowers from talking to me, and time is given for careful descriptions and deliberate deductions.

So the RURAL readers may expect "Scenes and People of Southern California" from my snow covered retreat at Webber lake, next winter. I am now at the head-quarters of Dr. Parry's botanical researches for the season, near San Bernardino, Cal. J. G. LEMMON.

"A Word to Grain Growers."

EDITORS PRESS:—I saw in your issue of March 11th, an article on page 169, under the head of "A Word to Grain Growers." If you will allow me I will say the reading of said article sounds as though some one has an axe to grind and felt perfectly at liberty to grind it on some farmers' stone while he was turning the crank. Now, if I remember right, I think some two years ago Morgan Sons had considerable to say to the grain growers through a a party by the name of Wright, who has gone to Europe, and the grain growers can look back and see the result of such words, viz: High freights and low price for grain, and a large vacuum in the pockets of the grain growers. The transactions in grain for the past two years ought to convince the grain growers that they cannot ship their own grain, or do their own warehousing or turn speculators without making a loss, as the grain growers are not educated for such business, and the laws of commerce do not warrant and will not sustain such mode of business transactions.

The combined efforts of the grain growers of this coast cannot regulate or make the price of grain. If we should have a large crop of grain (the prospect looks well,) and there is a sharp demand in Europe, we will get the market price and no more, but if there is no demand in Europe or elsewhere, we are sure to get the market price. My word to grain growers and all other producers is "stick to your calling, and let well enough alone." AMOS W. GOVE.

Lodi, Cal., March 12th, 1875.

[The article to which Mr. Gove refers was an editorial for which we are proud to be responsible, as it called attention of farmers to some of the bearings of their business. Our readers should distinguish between editorial expression, and matters which are printed upon the responsibility of the writers signing the communication. All that we have said editorially on the subject to which Mr. Gove allnded, we are glad to be held responsible for.—EDS. PRESS.

IS LAMPBLACK SOLUBLE?—The substance known as lampblack always contains more or less resinous and tarry matters, that are soluble in oil of turpentine, benzine, naphtha, etc.; but the purified lampblack (carbon) is itself insoluble in any menstruum.

HOW TO MAKE TIN CANS WITH A PEN.—Squeeze the juice of a lemon into a china or porcelain cup, and put in a small bit of copper. Let it stand for a day or two, then use it with a quill pen as with ink.

THE GARDEN.

Growing Onions.

EDITORS PRESS:—Under the head of "Growing Onions," in the RURAL PRESS of the 18th of March, I see an answer of "Yes" to my question, with regard to the relative keeping qualities of onions grown from seeds produced from bulbs set out in the fall, or those kept until spring and then only those set out that were firm at that time; but I fail to see where the writers' arguments apply to the questions, and support his answer of "Yes." In his first proposition he regards onions grown in dry, sandy, soil as being better keepers than those grown on low sand. I think it is a well established fact, that onions and potatoes grown in the peaty soil on reclaimed tule lands, cannot be surpassed in their keeping qualities by those grown in any other soil. I cannot see what bearing his second and third proposition have on the question before us. In his fourth proposition, in the tests made by himself and others in his county, they have come to a different conclusion than my neighbors and I have in our part of the country. Our experience has been that there is a marked difference in the keeping qualities of onions grown from seed produced from bulbs set late in the spring to those bulbs set earlier in the season. The seeds of those set late in the spring produce far the best keepers; the soil and treatment in both cases being the same. In this market the value of the onion crop, in a great measure, is in the keeping quality of the onion, and I deem it a very important point to settle. How we are to improve the seed, so as to bring about the desired result? Can we do it by planting the bulbs in the fall for seed the next season, or should we not have the onions properly cured and cared for, and in month of March or April set only those that are firm at that time; rejecting all those for seed that are disposed to sprout or soften in the earlier part of the season? I claim that seed from those soft onions is not likely to produce onions of good keeping qualities. The writer claims, "I have gained an experience in this line of business which is far more reliable than mere theory." Suppose Mr. Goodrich, or Mr. Bleeze had been told by parties of great experience in growing potatoes, and they had listened to them, that their experience was far more reliable than the theory of growing potatoes from seed balls; would we have had the Early Rose and many other valuable varieties of potatoes we now have? Suppose the gentleman that experimented upon the tomato for 20 years had listened to some of his neighbors of great experience, who told him it is all a mere theory; would we have had the Trophy tomato? We hear from year to year of improvements made in almost every variety of vegetables except the onion; is there not room for improvement in them? Can it not be done in California? It is to call the attention of the onion growers to this question that I have raised the queries.

Sherman Island, Cal. GRANGER.

Successful Gardening in the Mountains.

EDITORS PRESS:—On the fourth of February I started on a trip to Hite's cove, on the south fork of the Merced river, by way of Indian creek, Gentry's gulch, Bull creek, and up the Main river to Mr. Hennessy's place, where I crossed over. Mr. H. is gardening on a bar, in the middle of the stream, and on the trail leading from the cove to the Yosemite valley. Mr. Hennessy does not cultivate over two acres, if that much, and yet he keeps quite a number of men about his place at work the year round, and pays them good wages. I think that I hear some one say bosh; but wait till I explain. He cultivates that little piece of bar in the river bed in blackberries, strawberries, peaches, grapes, vegetables, etc., and packs his productions on the backs of donkeys to Yosemite valley, Hite's cove, and other places, where he obtains a high price for them. Blackberries, he sells in their season at 25 cents per pound. He was building a $2,000 frame house when I visited him. Mr. H. had nothing when he commenced in that spot. There are hundreds of places in these mountains, vacant, that are far better adapted to such purposes than Mr. Hennessy's place, and much easier of access, and only awaiting the enterprising hand that will some day make them blossom as the rose. The business will pay anywhere in these mountains.

A Grapevine Pest.

Mr. Hennessy informs me concerning a minute fly that destroys his grapes, and would like to find some remedy for it. I saw some of the flies. They are very small, and to the naked eye they appear of a grayish white color; they feed upon the leaves of the vine; they are very numerous, and a very great pest to him. I asked Mr. Hennessy to collect some of the flies for inspection under the microscope.

Mr. H. wished me to send him a copy of the RURAL PRESS, and I have done so, and I think he will soon become one of your permanent subscribers, as every intelligent farmer and stock raiser on the Pacific coast ought to be.

W. T. EVANS.

Maxwell's creek, Mariposa Co.

[We should like to have some of the insects for examination, or to hear of any further examination which Mr. Evans has made of them. —EDS. PRESS.]

HORTICULTURE.

Development of Our Fruit Resources.

EDITORS PRESS:—My proposition is that communities are subject to the same laws of cause and effect that operate upon an individual; that prosperity depends upon an understand-of their ability, condition and resources. There must be a concert of action coupled with purposes that have been well considered. The adherence to a rigid economy is necessary for securing the pecuniary benefits resulting from labor. With the foregoing as my text, I will endeavor to show wherein the people of California are sadly in arears to themselves; that they have at hand resources, which, if a thousandth part developed, would place them in the front rank of prosperous and wealthy communities.

Our Arable Area.

The area of California, according to the last report of the Surveyor General, by careful estimate, is 100,500,000 acres; of which but 3,541,900 acres are cultivated, a fraction over three and a half per cent.

The most satisfactory manner of establishing a proposition is when it can be mathematically demonstrated. It then becomes conclusive, with no chance for question or argument. Californians are proverbially forgetful of the important part that figures play in every day life. When it is seen how readily the vastness of the universe and the grandest conceptions are measured by integers, small in themselves and few in number, the value of units must be appreciated. Taking the same authority as named above (Surveyor General's report), we find that the area under cultivation is devoted as follows:

	Acres.	Average product per acre.*			
Wheat	1,900,549	840 lbs., or		14 bushels	
Barley	467,622	920	"	19	"
Oats	65,217	800	"	25	"
Rye	4,400	952	"	17	"
Corn	40,992	1,774	"	35¼	"
Buckwheat	559			27	"
Peas	3,596			29	"
Peanuts	155	1,040	"		
Beans	6,846	1,500	"	25	"
Castor Beans	130	949	"		
Potatoes	25,449	10,320	"	172	"
Sweet Potatoes	1,281			157	"
Onions	859			128	"
Hay	586,705	2,400	"	1 1-5 tons	
Flax	1,730	1,294	"		
Hops	1,125	1,197	"		
Tobacco	967	1,274	"		
Cotton	586	259	"		
Total	3,108,768				

This leaves 433, 132 acres for all other products, including vineyards, orchards, gardens, etc. By pursuing our investigations, we find that there are:

Apple trees	1,569,441	Nectarine trees	52,282
Peach trees	944,592	Quince trees	53,763
Pear trees	338,981	Apricot trees	115,136
Plum trees	265,929	Fig trees	87,516
Cherry trees	150,799	Lemon trees	13,661
Olive trees	14,688	Orange trees	89,086
Prune trees	24,222	Grape Vines (39,091 acres)	35,182,505
Mulberry trees	349,983		
Almond trees	321,347	Wine, gallons	3,892,775
Walnut trees	138,673	Brandy, gallons	223,763

I do not propose, in this letter, to enlarge upon the merits or demerits of localities, or discuss the expediency of giving attention to anything aside from that of fruit growing, leaving it with your readers to judge for themselves as to what is, and will be, most remunerative or satisfactory. From the data offered it is an easy matter to arrive at the cause for many being no better off, though they have toiled for years and deprived themselves of all comforts and advantages.

The Fruit Possibility.

California, among other things, is noted for the variety and excellence of her fruits. Pomona appears to have loosed the four corners of her apron, at the time of her endowment. No land is more favored. We can claim a monopoly of the apricot, nectarine, prune and plum. Our pears and peaches are scarcely equalled and never surpassed. The apple, quince, cherry, fig, orange, lemon and olive find a kindly home and are grown to perfection in the proper locations and soils. We come now to the grape, which is, as it were, to the manor born. It luxuriates in the our valleys, on our plains, hill sides and mountain tops—in fact, everywhere—all varieties of this queen of fruits appear to flourish and yield returns that astonish the world.

Can it be explained that with such a patrimony, with wealth unbounded, we are, nevertheless, dependent; compelled to rely on France, Spain, Italy and even Mahometan Turkey, for many of the necessaries and most of the luxuries we enjoy. Confining ourselves to fruit, we find that the importations for the year 1875 into the United States, exceed twenty-five millions ($25,000,000) of dollars gold coin, for dried fruit alone. Nearly the whole of this sum was for dried grapes or rasins. Continuing our investigation, we find that even here, under the shadow of our vineyards, there was imported last year 498,712 pounds of rasins, 160,000 pounds of currants, 145,000 pounds prunes, 35,400 pounds figs, at a cost of fully $100,000.

These figures do not indicate the sum total of our indebtedness by any means, as I have not taken into account our heavy drafts upon Oregon for green and dried apples, pears and plums; nor upon Salt Lake and the East for dried peaches, apples and berries, besides thousands of cases of canned fruit consumed within our borders; nor yet again for the oranges, lemons and limes received from the southern coast and islands, all of which can and should be raised at home. Let those doubting Thomases who are hacking down their orchards and pulling up their vineyards "because they don't pay," reflect a moment and ascertain the reason (if such be the case,) before proceeding to extremes.

The Eastern Market Field.

With the millions of fruit-hungry souls to supply, thousands of whom would freely part with their birth-rights in exchange for a cluster of our magnificent Muscats or Hamburgs; people inhabiting a country extending from the summits of our Sierra Nevadas to the rock-bound coasts of Labrador and the lagooned-shored Mexican Gulf—I ask with this prospect in view, and a certainty of the demand, is it not very foolish to waste our time, substance and opportunities in scheming and speculating?

Let there be a thorough understanding among fruit growers—a concert and unity of action, a determination of purpose, and we will soon find the harp of lamentation hung upon the willows No more orchards will be cut down and vine-yards uprooted, but thousands of acres now worthless brought into requisition.

I had hoped to treat of matters more in detail, indicating the best manner of caring for and preparing fruit for the Eastern markets, but space forbids, and it will be reserved for a future communication. G. C. PEARSON.

South Vallejo, Cal.

We trust Mr. Pearson will give us the promised detailed description concerning preparing fruit for the Eastern markets. It will be very valuable just at this time.—EDS. PRESS.

THE DAIRY.

How to Improve the Herd.

The *Record-Union* makes the following observations concerning the improvement of dairy stock:

There is a great difference in the value of cows for the dairy. In the recognition of this difference and in the measures adopted to get rid of the poor cows and secure a uniformity of good ones consists one of the surest roads to successful dairying. Some dairymen place their reliance in the breed of the cows, but the fact that some prefer one breed and some another is pretty good evidence that the quality of the cow for a dairy does not depend altogether on the breed. The practical and successful dairyman, however, does not place much confidence in breed, except so far as to recognize the general characteristics. He depends more upon individual selection. When he proves a cow to be a good milker, for the purposes he wants milk, he keeps that cow, whether she be a thoroughbred short horn, a Jersey or a common scrub. And when he proves a cow to be a poor milker, he with equal promptness marks that cow for the butcher, and turns her into his fattening head, to be turned into beef at the first opportunity. The successful dairyman raises his own calves and breaks his own heifers to milk. The first point he makes in breeding dairy stock is to secure a bull that is descended from a strain of good milkers. The best dairymen, we would not be understood as saying, give no preference to stock. We only say that while they recognize the general superiority of thoroughbred cattle they insist on and practice upon the more important law of selection, and they apply this law of selection to thoroughbred as well as to common stock—to males as well as to females. There is no doubt this is the correct practice as to all domestic animals. Look to the breed first and adopt that which, for the general purposes for which the stock is wanted, has the most favorable points, and then exercise a keen discretion in the selection of the individual animals. In this way a great improvement of a herd of dairy cows can be effected, even in two or three generations of the animals, and much greater in the generation or lifetime of a man. If all the dairymen of California would adopt and practice this plan thoroughly for the next 50 years, we have no doubt that the standard of our dairies could be raised, not only much above their present status, but above those of any other State in the Union.

The Position Well Taken.

The position, which the *Record* assumes with reference to the profitability of breeding dairy stock by intelligent selection within the herd, is well taken. It is the method already in practice among the best dairymen. It is only unfortunate that all do not appreciate the possibility of building up the productiveness of their herds in this way. We recall a case of this kind of practice which came under our observation in New York. Mr. C. M. Morgan, of Allegany county, drew as his dividend from a cheese factory for milk delivered during the season of 1874, $1,449.45. This milk was the yield of 16 cows, and consequently the average return per cow was $90.59. This was the largest yield per cow reported for the year. To show how it compares with the average return of other herds, we will state that reports were received from upwards of 90 factories receiving milk from more than 36,000 cows. The average per cow of all the number was $39.57, and the poorest average per cow was $14 50. Thus it appears what a difference there exists in the productiveness of different herds. We were interested to discover how Mr. Morgan succeeded in so far leading the cheese dairymen of New York. The following was the method: Mr. Morgan is a good judge of a cow, and he does not believe that one cow is as good as another for his use. He practices a sort of natural selection in his herd, and thus improves it continually. He subjects each animal to a systematic test of milking, and his object is more milk. The amount he gained in 1874 is greater than ever before. He breeds for usefulness rather than name. He never sells anything but a poor cow, and will buy nothing but a good one, even if he has to pay more, because his experience has taught him that a good cow will yield him a better percentage on a large investment than a poor cow will upon a small one.

Thus, by a case of actual practice, we would enforce the observations of the *Record*. There's millions in careful, intelligent and useful breeding if the dairymen will study closely the deeds of his cows, and aim always to reproduce the best.

THE SWINE YARD.

The Farmer's Hog.

Edwin Clarke read an essay on 'The Farmer's Hog" before a farmers' meeting in Iowa, which contains points which are worth the attention of swine growers everywhere. He writes: I commenced 10 years ago with Chester White, which was then in fashion, and raised and fed them for two years. They require more age than I thought I could afford to give my hogs, not fattening readily until about 18 months old. The next hog that came in fashion was the Poland-China or Magee. This breed with me had neither of the faults of the Chesters; fattening at any age, remarkably docile and quiet, and splendid feeders, but poor mothers and nurses; especially is this the case with old sows. If it was not for this fault this breed of hogs would be, in my estimation, "par excellence."

The next on the programme is the Berkshire This distinguished foreigner is at present attracting the attention of farmers in general, and fine stock men in particular. His compact, neat built, muscular frame, short nose, small, erect ear, and black, glossy skin makes him a perfect beauty. Their fine, muscular development makes them the especial favorite of shippers; the sows are splendid mothers and nurses, scarcely ever overlaying their pigs, as does the Poland China; but, with all their fine qualities, they have one fault. His high strung, nervous temperament causes him, when allowed to roam at will, to be uneasy and restive, and consequently renders him unfit to be raised on pasture. This trait or disposition is inherited from his ancestor, the wild hog of England; but having been bred and fed at the swill tubs of Great Britain, he is decidedly the gentleman's hog, being finely adapted to the pens and close range of our city cousins. The course of breeding and feeding which he has undergone for generations is what unfits him for the farmer. He will in a few generations deteriorate and become the cat-hammed, bow-backed, long-bristled, savage dispositioned wild hog of England, having no resemblance, except in color, to the neatly built, swill fed, gentleman's Berkshire which you see in the pens of the fine stock men.

Crossing.

I have now looked at some of the objections I have found to three of the popular breeds of hogs; I shall now advance a theory which I have been experimenting on for three years past, namely, the crossing of different breeds in order to get a hog suited in all respects to the wants of the farmer. I have crossed my Poland-China sows with a grade Berkshire with excellent results. The only reason that I would ever introduce a drop of Berkshire blood into the Poland-China is to make them better mothers and nurses, and the reason for using a grade instead of full blood is that the first cross of any two breeds of hogs does not tend in the direction desired, as the pigs of that cross will have the appearance of one or the other of the parents, being either Berkshires or Poland-Chinas, while we desire them to be both combined in one. The next cross of one of these grades with the full blood Poland-China gives almost invariably the desired result, having an animal with all the good qualities of the Poland-China and also good nurses and mothers.

I shall now take up the

Management of Hogs,

And give the course I follow. The hog is not a native of the Arctic regions, as some farmers seem to think, and consequently requires shelter from the inclemency of our climate. Some, also, seem to think that the sunny side of a straw pile or manure heap is a place good enough for a hog, but I must beg the privilege to differ with them. The hog wants a dry nest, not too warm, but warm enough to be comfortable, and with means for a good ventilation. Where the farmer does not feel able to build a hog house with all the necessary fixtures, a shed can be built at a cost of $3 or $4, that will shelter from 40 to 60 hogs.

Set three rows of posts in the ground, eight feet apart north and south, and six feet apart east and west. Have the outside rows four and a half feet high, and the middle row six feet high. Board up the sides with 16-feet lumber and the north side with 12-feet lumber. Cover with slough hay, and fill up with earth eight or 10 inches to keep the water from running into the nest. Throw in some straw. This should be cleaned out once in two or three weeks and replaced with new. I should have doors so constructed that I could close the open side of my shed during stormy or very cold weather, leaving only an open space near the top for ventilation. Give your hogs plenty of range during winter, especially brood sows. These should not be allowed to nest in large lots after one-half the period of gestation has passed; four or five are all that should nest together during this period.

SHEEP AND WOOL.

Tanning Young Lamb Skins.

In a report of a recent meeting of the New York farmers' club, we find the following: A letter from Mr. T. C. Peters, of 209 Macon street. Brooklyn, Long Island, under date of Oct. 25th, 1875, addressed to S. E. Todd, and intended to be read at a meeting of this club, respecting the saving and tanning of lamb-skins with alum, for profit, by farmers and stock-raisers, was handed to me with a request to investigate the matter, and I therefore beg to make the following statement. The sample of dressed lamb-skin that accompanied Mr. Peters' letter compares exactly with the French skins that are imported to this (New York) market, and used for children's jackets and glove-lining. The dressed skins, imported, are worth, in this market, from 9 to 11 cents each. The raw dried skins are worth from four to eight cents each. The above prices are wholesale. Furriers, however, differ in their estimates as to the wholesale price of the raw dried skins. One party estimates them at from seven to eight cents each, while another, of equally good authority, holds them as low as four and a half cents each. It would be safe, therefore, to estimate the value (at present) at from four to eight cents each, according to quality.

Process of Drying.

When the skin is taken off the lamb fresh, the skin of face, ears, eyes and legs is cut off, and the skin of the legs is left four inches long. When thus cut and trimmed, it is stretched with three small sticks, (as boys' kites are stretched,) and hung on a line in the shade. When the skins are thus dried, they are baled and sold to traders. The value of the skin is regulated by its condition, the peculiar breed and the quality of the wool. It is not likely that the producer could realize more than three or four cents on each skin. The demand and sales in this market are limited. From all I could ascertain, the sales do not exceed 75,000 skins per annum. It is questionable that if the farmers in the Central and Eastern States, who seldom have more than 100 or 200 sheep at a time, would find it worth their while to save their lamb skins, as it is not likely that, on a well regulated farm, under the supervision of an experienced stock raiser, the loss of lambs would be three or four per cent., at most it should not exceed five per cent., while on the other hand, the great wool-growers in the Western and Southwestern States, like those in Kansas, Colorado, New Mexico and California, would be likely to make it worth their while to allow their shepherds to save their skins on shares, by way of a perquisite. The only objection to this arrangement would be the possibility of unprincipled shepherds neglecting the lambs for the sake of the perquisite. On the whole, it does not appear that the producer would find it very profitable to either save or tan the skins for market, unless skilled shepherds could be interested in the saving of the skins, which in the Western States would be attended with difficulty owing to the wan of shade and the roaming nature of the flocks on the plains.

Mr. Morrell said that if a flock was well managed, the loss of lambs should not exceed five per cent.

The Mohair Business.

Buffum & Stockton write as follows: We shipped our mohair, through Bailey & Co., to New York on our own account; received 85 cents, unassorted, and expect to ship in the same way this season. Finished shearing the 24th of last month; have a splendid lot of mohair—we suppose about 2,000 pounds. Think it advisable to place on the New York market as an advertisement to our business, and show those wool buyers we have the mohair for sale, and we will soon have purchasers here looking after it. We have some very heavy fleeces this year. I saw Gilmore's statement in the papers, showing up G. B. A., and weight of fleeces, and concluded to take note of some of our fleeces. His heaviest fleece was six and a half pounds. These are the weights of some of our best:

EWES.		WETHERS.	
0 grade,	wt. of fleece.	1 sheared	9½ lbs
1 15-16	6	1 sheared	9 "
1 15 16	6¼	1 sheared	7¼ "
1 31-32	6¼	1 sheared	7½ "
1 31-32	7	1 sheared	7 "
1 63-64	6¼	1 sheared	7¼ "
(This is a yearling, wool fully one foot long)		1 sheared	8¼ "
		PURE BUCKS.	
1 pure	7	1 sheared	7½ lbs
1 pure	6½	1 sheared	6½ "
1 pure	6	1 sheared	6
1 pure	5¾		

Our heaviest fleece from grade kid was four and a half pounds. You will see our grades, that is the best of them, shear full as well as our pure breeds, and the wethers beat all of them. This shows us what we can do in California if we will only labor for it in the right way.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

A Valuable Grange Publication.

Rev. A. B. Grosh, the first Chaplain of the National Grange, has published a work entitled "Mentor in the Granges and Homes of the Patrons of Husbandry." The object of the publication is to explain the origin, aims and government of the Order; to answer objectors, advise candidates, teach the lessons of the several degrees and duties of officers and members, and thus aid Patrons to more fully understand the principles and purposes of the Order. This new publication in no way conflicts with or covers the ground of any previous publication, and yet "it will be found an important, if not an indispensable educator of our members into a strong unity of moral, social and intellectual fellowship, based on principles, precepts and practices held and obeyed in common throughout the Order."

A careful reading and study of the book cannot fail to make the paths through our symbolic farm more plain, the travels more comfortable and cheerful, and the lessons more profitable and easier to be remembered. The author truly says: "Every lesson of each degree is plainly taught, but in the author's own words and ways; and some are further enforced by arguments, illustrations and selections not in the ritual. In all this, no portion of the secret work, written or unwritten, is exposed. The instructions given will aid the candidates in recalling to memory what *has been* imparted to them; but no one will be able to learn any secret work or words which have not yet been lawfully and regularly made known to them in the Grange."

Bro J. R. Thompson, one of the earliest founders of the Order, writes to the author that it is "elevated in sentiment, beautiful in expression, and instructive in its character. It is the first contribution to the *ethical* and *æsthetical* literature of the Order, and cannot fail to meet with appreciation and acceptance."

The book forms a beautifully printed and elegantly bound volume of 478 pages, and is offered at the low price of $2 per copy—to be had of agents only. It is embellished with a portrait of the author and a large number of engravings of emblems, etc.

Let in the Hired Man.—The *Farmers' Friend* very properly says: "It is a mistaken idea that the only person eligible to membership is the farmer who both owns and tills his land. The man who makes agriculture his business, though he does not own a single rood of earth, is just as eligible as the man who owns a thousand acres. The constitution says that an applicant for membership must be 'engaged in agricultural pursuits, and have no interest in conflict with our purposes.' The constitution does not say that he must own the land he tills; he must be engaged in agricultural pursuits. The employee on the farm, known as the 'hired man,' is entitled to membership so far as agriculture is concerned; and if he toils upon the farm all the time, how can he have an interest with our purposes? Of course the employee ought to be a man of good habits, and one that can be trusted. With these qualifications, God forbid that anything like caste or strata in society shall keep him out."

A Day for Tree Planting.—The other day we passed the farm of a practical farmer, and noted young trees, so abundant in our monte, transplanted along the sides of the road bounding the farm. They are now budding out into foliage. In a few years here will be shade, ornament and firewood, all secured at very little cost. By the way, that true farmer's friend, the Rural Press, which so frequently deems the *Record* worth quoting for the benefit of its many readers, is suggesting that the Granger's Anniversary Day, April 4th, be observed all through the State as a day for tree planting along the public highways and around the farms. We second the suggestion, and urge our Grangers to turn out on that day, and invite all residents of the valley to participate in the pleasant and profitable exercise.—*Lompoc Record, Mar. 25th.*

Commencing Work.—A meeting of the Directors of the Grangers' Business Association was held on Monday last, and measures adopted for vigorously prosecuting the work of providing the wharf and warehouses. Work in grading the roadways on the grounds of the Association is to be commenced on Monday next, and specifications for the construction of the wharf are to be immediately prepared for bids.—*Contra Costa Gazette, April 1st.*

Oregon State Grange.—We acknowledge receipt of the report of the last annual session of this Grange, September 28th, 1875. It is printed in good style by E. M. Waite, of Salem.

The Debris Question in the Grange.

The following is a copy of resolutions adopted by the Yuba City Grange, No. 65, Patrons of Husbandry, at Yuba City, on the 1st inst. The resolutions are as follows, with the certificate of M. F. Honan, Secretary:

To the Worthy Master, Overseer, officers and members of Yuba City Grange, No. 65, P. of H.—Sisters and Brothers: We, your committee heretofore appointed to draft resolutions expressive of the sentiments of this Grange in regard to the threatened destruction of agricultural lands by debris from hydraulic mining, respectfully report as follows:

Whereas, Throughout all ages of the world agriculture has been, and now is, the leading and permanent industry of civilized nations. We are taught by history that nations have flourished in proportion as agriculture has been encouraged and protected.

Whereas, Ruin and decay has followed its neglect and discouragement; and

Whereas, In a large portion of our State the mining industry has seriously encroached on that of agriculture, and has actually destroyed many millions worth of property, and is threatening the entire Sacramento valley, its navigable rivers and the bay of San Francisco; and

Whereas, Contemplating these facts, we view with alarm the effect of the continued improvement in appliances to wash down upon our lands mountains yet untouched; therefore be it

Resolved That we, the members of Yuba City Grange, do condemn hydraulic mining as prosecuted in various parts of this State to the injury of agricultural interest.

Resolved, That hydraulic mining is retarding the proper development of the agricultural wealth of this State, and the various manufacturing and other pursuits for which our climate and location offer superior natural advantages, by destroying our most valuable farming lands, discouraging the natural flow of immigration and capital that would build up our towns and cities, cultivate the many acres now lying waste and deemed unsafe to cultivate by reason of said mining debris, and by destroying the natural outlets for the various products of the country, forcing them to seek transportation through artificial channels.

Resolved, That prudence and wisdom alike, dictate to both Federal and State governments the necessity of protecting agriculture against destruction from pursuits of an ephemeral nature, and save to us and our posterity those fertile valleys which are the pride and support of the nation.

Resolved, That our senators and representatives in Congress be earnestly requested to give this matter their serious attention; to the end that this difficulty between the two great interests of the Pacific coast be speedily adjusted.

Committee—George Ohleyer, B. F. Walton, S. R. Chandler, Henry Elmer, M. F. Honan.

On motion, it was ordered that a copy of the above resolutions be sent to the Master of the State Grange, one to each Subordinate Grange in this State, and a copy to each of our senators and representatives in Congress, and to such other bodies or individuals as might be deemed advisable. M. F. Honan, Sec'y.

From the Granges.

Adams Grange.

Editors Press:—Thinking that a short sketch from this portion of the Golden State, in reference to Grange matters, might interest some of your many readers, I concluded to forward you an account of our harvest feast, held on Saturday last, the 25th inst. We conferred the fourth degree on a class of three, after which the doors were thrown open, and the newly made Patrons with many guests were invited to partake of a bountiful repast, generously provided by the ladies of the settlement. The table was loaded to its uttermost capacity with everything eatable that heart could wish, and prepared in such manner that showed our Fresno ladies understand how to get up such things. It was astonishing to see what sad havoc we made on that table in so short a time. Owing to the lateness of the hour we were blest with good appetites, and all did ample justice to the feast. Friendship and sociability reigned supreme. Nothing occurred to mar the harmony of the occasion, and all passed off as pleasant as a noon-day's dream.

At the sound of the gavel the Grange was again called to order by Worthy Master, who announced that the officers elect for the year 1876 would be installed publicly. Brother Stephen Cole led the opening ode, which was admirably executed and added greatly to entertainment.

The installation was prefaced by a highly instructive and interesting lecture by our Worthy Master, Maj. T. P. Nelson, which was listened to with marked attention throughout, after which the officers were duly installed for the year 1876.

Everything is lovely with us here at present, Grange flourishing, grass abundant, stock improving and the most flattering prospects for good crops. The rainfall has not been as heavy here as in other parts of the State. We have had as yet only 21 inches and a fraction over.

Thos. H. Wyatt, Soc'y.

Dry Creek, Fresno Co., Cal.

Yuba City Grange.

Editors Press:—Since my last letter for your columns there is a decided change on the face of nature. Dull winter, with its rain and mud, has given way to blooming spring. The sun shines forth again like a great smile of God, infusing new life and vigor into everything, and spreading happiness all around. Our past discomforts and present ills are all forgotten in the bright prospect of an abundant harvest. Never did the farmer have a better prospect of realizing the full measure of his hopes than at the present time. The news from all quarters is most promising, and to all enquiries about the crops the invariable answer is, that "they never looked better."

Last Saturday our Grange held its regular monthly meeting, and if we had full control of the elements we could not have improved on the weather. The light north wind that had been blowing for a few days previous calmed down to a gentle zephyr. The sun being comfortably warm and the roads in good condition, a large number of our members turned out. The spacious hall belonging to the Masonic fraternity, in which we hold our meetings, was well filled with men and women, all eager for improvement.

Although the chief object of this meeting was to perfect our arrangements for holding a picnic, yet that which received the greatest attention was the adoption of resolutions condemning hydraulic mining as prosecuted to the injury of the agricultural and other interests in this State, a copy of which I enclose for publication in your columns. [The resolutions will be found in another column.—Eds. Press.]

In making arrangements for holding our May picnic we have deviated somewhat from our established custom by appointing it to be held on the fourth instead of the first day of the month. There appears to be good reason for this change, however, especially as the first of May happens to be on Monday this year, and by way of argument against holding a picnic on that day the sisters remind us of the words in the old song: "There is no luck about the house upon a washing day." This, with the fact that Sunday would have to be a day of great labor in preparing the "good things," shows the inexpediency of holding picnics on Monday.

The Hock farm is the ground selected, and a more delightful place to hold a picnic cannot be easily found. This place was formerly the home of that early pioneer, General Sutter, and although now sadly neglected, its ruined walks, giant fig trees and tangled maze of flowering shrubs, grown wild for want of attention, show that at one time it was an object of great care.

We can assure our fellow Patrons, and all others who may favor us with their company, that no pains will be spared in making this picnic something to be remembered with pleasure by young and old. The Hon. C. P. Berry, who has gained so much fame by his connection with the "debris question," will be invited to deliver an oration, and several of our local celebrities will be notified to put themselves in training for the same purpose. This, with good music, dancing, a variety of games and sports for the young and a cool shade and conversation for the old folks, will make up the programme. H.

[Our valued correspondent, M. F. Honan, formerly Lecturer of Yuba City Grange, is now Secretary. The Secretary elect for the year resigned.—Eds. Press.]

Union Meeting of Granges.

Editors Press:—I am requested to send to you for publication the following: At a meeting of a committee from Woodbridge, Lodi, Lockeford, Washington and Elliott Granges, held in Lodi the 24th day of March, 1876, it was agreed to hold a union meeting, for work under the head of the good of the Order; said meeting to be held in Lodi, on Friday, the 14th day of April, at 10 o'clock, A. M. A committee was appointed to extend an invitation to J. V. Webster, Worthy Master of the State Grange; to the business manager of the Grangers' bank; to the business manager of the Farmers' Mutual fire insurance association, and to a representative of the Grangers' Business association, and to all other Patrons that feel an interest in the work. J. D. Huffman, Sec'y.

Lodi, Cal., March 24th, 1876.

Stanislaus Grange.

Stanislaus Grange, No. 4, will celebrate the anniversary of its organization by a basket picnic at the Grange warehouse, Modesto, on the 15th of April, 1876, at 10 o'clock A. M. The Patrons of the county and their families are invited to participate; such as can sing are requested to bring their song books and to take part in the musical exercises. The organ belonging to the Stanislaus Grange will accompany the voices. Refreshments will be furnished by each, according to his fancy.

Vital E. Bangs, M.

R. B. Robinson, Sec'y.

Bernardo Grange.

W. A. Feeler, Secretary of Bernardo Grange, informs us that Brother Nobles was elected and installed Gate Keeper. His name was accidentally omitted in our issue of March 4th.

Santa Clara Grange.

Another harvest feast will occur April 22d, at 12 M. The Grange will open for work in the degrees at 10 A. M. Worthy Master J. V. Webster has engaged to be present. Speeches will be made after the feast. Patrons generally are invited. We are sure a pleasant and profitable meeting will be held.

Grangers' Business Association Meeting. Stockholders should not forget the adjourned meeting, to be held at 10 o'clock on the 19th day of April. All shareholders who can consistently attend should be present, others should place their proxies in the best hands possible.

The Executive Committee of the State Grange are in session to-day (Wednesday). We shall report some of their transactions next week.

The Grange a Social Order.

R. J. Livingston, of Genoa, Nevada, sends us the following address of the Lecturer of Carson Valley Grange:

The Grange is pre-eminently a social Order. One of the principles of the Order is sociability. We see this very forcibly in the fact that women are allowed to become members. It appears to me that the person or persons who originated the Order of Patrons of Husbandry had a thorough knowledge of the utility and necessity of social life and of the influence it exerts over us for good or evil, according as it is rightly or wrongly directed. Sociability is as necessary to our mental and moral development as food is for our physical good, and the more we cultivate sociability the more elevated we become.

The desire for company is as natural as life itself. There is no being that lives but what takes delight in the companionship of its own species, and should the highest of all God's creation be exempt from this natural law? Should they not rather be more sociable and enjoy each others' society more fully because they have been created with a greater knowledge and power of enjoyment than the other creatures of God? Then is it not our duty to ourselves and the whole human family to cultivate the highest order of sociability, not only when we meet together, but at our own firesides be kind and sociable, and then we shall have that true sociability which makes allowance for the faults of others, and will fill our Grange with harmony and love, and will elevate us more than we at the present time have any idea of?

Why is it that we as a community are so unsociable? Because we do not know the benefits to be derived from the society of others. It is not by retiring within ourselves that we acquire knowledge. It is by associating and being benefitted by the society of the learned and elevated of man and woman kind, and we can all be learned and elevated if we wish. All we have to do is to be sociable and willing to learn—by being nature's true nobleman and woman. But do we find the true man or woman in the halls of fashion? By no means. We find them in life's more lowly places, calmly and cheerfully doing what de tiny assigns them, and doing good whenever the opportunity presents itself, and diffusing the knowledge, be it much or little, that they are in possession of. When such are removed by death, how they are missed! There seems to be a vacancy that nothing can fill; nothing can supply the void but another like them. But where do we find many such? Alas! they are few. But this should not be so. We should all strive to the best of our ability to be the true man or woman, and then we shall be satisfied that we have done our best in the short time that we have been permitted to live upon the earth.

Let us as a society be sociable and then we shall be united.

Sociability creates good feeling, and this in turn creates union, which is the foundation of everything, and without which we can accomplish nothing; then if we want unity we must first have sociability.

What it has Done.—The Grange has started the cheap transportation movement throughout the Union, and the movement to check the too great power of monopolies in general; initiated legislation against the growing evil and abuses of railroad discriminating; set on foot a determined war against political corruption everywhere, and compelled the Government to take active steps for the improvement of the Mississippi. It has also taught the farmer to think and act for himself; shown him the enormous power he possesses, when acting in general concert; introduced a more general disposition to avoid debts, money lenders and mortgages, and has taught farmers the great advantage to be derived from a more intelligent system of farming. In the latter connection it has more than quadrupled the number and circulation of agricultural papers. The true Patron of Husbandry is a thorough, live farmer, striving for perfection in all things—an improved home circle, good cultivation, good seeds, plants and trees, good machinery for his farm, good stock, good profits and an honest and well ordered government.

Election of Officers.

Adams Grange, No. 143, Big Dry Creek, Fresno Co., Cal.—Thos. P. Hall, M; Jas. T. Wyatt, O.; Jno. Doak, L.; Benj S Birkhead, C.; Wm. P. Nelson, S.; Stev. H Cole. A. S.; Jno. M. Heiskell, T.; Thos. H. Wyatt, Sec'y; Jno. T. Birkhead, G. K.; Mrs. Martha Halley, L. A. S.; Miss Alice Ward, Flora; Mrs. M. H. Nelson, Pomona; Mrs. Maria Jack, Ceres.

The Grangers' Bank of California.—We would call attention to the card of this association in our advertising columns. The bank is now permanently located and in good running order in the Grangers' building, northeast corner of California and Davis streets, S. F. Our farmers should give preference to their own bank, and as far as consistent add to its business transactions at every opportunity.

Granges are not formed to make war on merchants, banks and railroads, but they are formed to insure, by combined and mutual support, fair and just dealings with whomsoever they may deal—merchants, manufacturers, steamboats or railroads.

In Memoriam.

The following action was taken at a meeting of Ferndale Grange, No. 102:

WHEREAS, Our Divine Master has called for our beloved sister, T. B. BOYNTON, to appear before Him in that celestial Grange above over which He forever presides,

Resolved, That by His call we have lost a beloved sister, the Grange an efficient worker, the community a faithful friend, and her family a loving and affectionate wife and mother.

Resolved, That while we mourn her loss we must not forget that we are all traveling on that level of time from whose bourne no traveler returns, and may we ever be as ready to obey the summons of our Divine Master as was our beloved sister.

Resolved, That the Grange be draped in mourniug, and the members wear the usual badge of mouruing.

Resolved, That a copy of these resolutions be forwarded to her bereaved family, the several county papers and PACIFIC RURAL PRESS.—[Committee: J. D. Ferrell, E. C. Damon, Ira Burgett.

The following resolutions to the memory of Sister DRESSER were adopted by Yuba City Grange, No. 65:

WHEREAS, In the inevitable course of human events, another link has been dropped from our fraternal chain;

Resolved, That in the death of our beloved Sister DRESSER, this Grange has lost one of its most devoted members, her childreo a kind and affectionate mother, and the community a sincere and upright Christian.

Resolved, That we extend our heartfelt and fraternal sympathy to her bereaved family, and all others who were bound to her by the tender ties of relationship.

Resolved, That these resolutions be spread upon the records and a copy be sent to the RURAL PRESS for publication.—[Committee: Mrs. R. H. Walton, Mrs. B. F. Frisbie, George Ohleyer.

G. C. Pearson, Secretary Vallejo Grange, writes: The following resolutions were adopted by our Grange. Brother and Sister Greenwood have lost two children within a week by diphtheria.

WHEREAS, It has pleased an all-wise Creator to take to Himself the tiny bud and tender flower from your hands to enrich his bouquet of innocents in a happier world,

Resolved, That we, the members of Vallejo Grange, tender to our brother and sister, George and Lizzy C. Greenwood, this faint expression of confidence.

Resolved, We, as your brothers and sisters, tender you our heartfelt sympathies, knowing full well that there is a void in your hearts which can never be filled until the kindly influences of time shall have closed the wounds.

Resolved, That this action be spread upon the minutes of the Grange, that copies be furnished our local papers and RURAL PRESS for publication.

General News Items.

PREPARATIONS are rapidly being made for the Belknap impeachment trial.

THE present eruption of Mt. Vesuvius is said to be exceedingly grand.

FRANCE will interpose to relieve the financial embarrassment of the Khedive.

GILMORE will conduct the Centennial musical exercises on the 4th of July, at Philadelphia.

IT is stated that Winslow, the Boston forger, will not be surrendered by the British Government.

JAPAN having ratified the postal agreement with the Government, it has now gone into effect.

THERE is a dead-lock between the Plymouth Committee and Henry C. Bowen, which it will be hard to break.

GREAT excitement exists in Kentucky over the discovery of gold on the farm of General Blackwell, in Clark county.

PRESIDENT GRANT is confiued to his room and receives no visitors, though he is not confined to his bed. His sickness is periodical neuralgia.

THE House Committee on Public Lands will probably send a sub-committee to California after the present session of Congress, to inquire into alleged frauds in the California land office.

A SPECIAL from Washington says President Grant has sold his property known as Rhode Island farm, for which he paid over $22,000, and on which he intended building a substantial residence this year. Having become disgusted with Washington life he will probably settle on his home near St. Louis. He is especially anxious to escape from hollow hearted Washington society.

THE River and Harbor Appropriation bill in Congress, reported to the House Monday by Hereford of West Virginia, appropriates in all the sum of $5,872,850. Among the items are the following for the Pacific coast: Lower Williamette and Columbia rivers, $15,000; Upper Columbia, including Snake river, $10,000; breakwater at Wilmington, $30,000; Sacramento and Feather rivers, $100,000; Oakland harbor, $75,000; San Joaquin river, below Stockton, $20,000; Monterey harbor, $12,000.

THE Canadian Government have announced their policy respecting the Pacific railroad, which is to ignore the 10 years limit and build it as rapidly as the circumstances will permit. The line has been located from the Lake of the Woods across Red river, via Fort Petty and Edmonton, through the Jasper House pass to Fort George, in British Columbia. The difficulty is to decide out the route from Fort George to the Pacific Coast, 300 miles. The Fraser river route has been abandoned as impracticable, so either the Butte inlet, 150 miles, or more likely Dean channel, 250 miles north of Victoria, on the Pacific Coast, will be adopted as the western end. At the eastern end it is not at all probable that any attempt will be made to construct the section from Lake Nepigon, north of Lake Superior and Lake Huron, to Nipissing for many years, so it may be looked on as practically abandoned, unless there be a change of government at the next general election in two years from now.

AGRICULTURAL NOTES.

California.

BUTTE.

NO FENCE LAW.—*Mercury*, Mar. 30: Last week we stated that the no fence law for this county had been changed, but could not tell wherein. Since that time we have been permitted to read a letter from Senator Hendricks to J. McSmith, from which we learn that all of the county across Feather river is now under the provisions of the law, and that the same is now in force. To be more accurate. the line follows up Feather river to the mouth of North Fork; thence up the said fork to the county line; thus taking in all west and south of those rivers. As the bill has been signed by the Governor, and is now in full force and effect, all the ranchers will have to do to stop their crops being eaten up, is to take up what stock they find upon their premises and corral them. We think the law is the same as that found in the Statutes of 1873-4 relating to this subject for this county. The law can be found in any of the offices of the several Justices of the Peace. Our friends over the river will have to drive their stock on this side, or buy some land. The stock men here are now willing that it should be extended over all the county. They are now between two fires, as Yuba has a similar law.

ORANGES AND LEMONS.—John Hart owns a ranch upon the side of one of the red gravely hills, out of town some two miles. He planted vines, orange and lemon trees. Last fall in riding past, we saw some 20 lemon trees well filled with unripe fruit. Some of them contained altogether too much fruit for the young and tender limbs, and they were breaking down. Several orange trees were also in bearing. Now this land looked to us to be good for nothing in the world. The trees were no more looked after, or received greater care than apple, pear or peach trees generally do, and yet they bore a full crop. This week we learn from Mr. Hart that there is a good prospect of having another large crop. All that he does is to see that the trees have water during the dry, hot months of summer. It may be that our hills will be turned into orange and lemon orchards, and with great profit to the owners.

EL DORADO.

MINERS BECOMING FARMERS.—*Republican*, Mar. 30: Agriculture in the foothills of California is as yet only in a primitive state. The reason for this is that as a rule agriculture is carried on by those who have, until recently, been engaged in mining, and are following it because it pays better than anything else they can find to do for the labor required. When properly farmed our mountain farms are nowhere equalled for their productiveness.

HUMBOLDT.

EDITORS PRESS:—We have had a very wet winter. It has rained steadily ever since the first of November until about a week ago, when the sun shone bright and warm. But alas, it was only a make-believe, for once more the angels' tears drop on sinful mortals. Farmers have not been able to do anything this winter; there is scarcely any of the first plowing done. Consequently there will be a rush of work when it does dry up.—E. C. DAMON, Ferndale, Feb. 24th, 1876.

KERN.

SNOW IN KERN MOUNTAINS.—*Southern Californian*, Mar. 30: The prospect for cool days till July was never better. The snow on the mountains is deeper than known for many years. A man prospecting for summer feed, recently from the mountains, near the head waters of Kern river, came to Bakersfield, and reported that, in his opinion, the snow would lie on the north side of the mountains all summer. He found it lodged in ravines to a depth of 60 feet, and the average depth of the snow on exposed places was about seven feet. From all this the conclusion is drawn that the river will be high throughout the season and that the waters will go to waste in the lakes, spreading over the low lands extending between Buena Vista and Tulare lakes, a distance of 50 miles. The assurance of an ample supply of water throughout the year is encouraging to the farming interests of Kern county where preparations are being made for irrigation on an extensive scale.

MERCED.

TROPICAL FRUIT CULTURE.—*Express*, April 1: On the Fitzhugh ranch, one-half mile above Snelling, on the Merced river, there are orange trees ten years from the seed, one of which produced three hundred oranges, marketable and of superior quality as to size, taste and flavor, as many of my neighbors and acquaintances who ate some of them can testify to. These trees were raised from the seed, and have been subjected to the same exposure that the other trees have endured around them. I think they stand the frosts far better than the peach and plum, at least it would so appear from the results of last year's crop, which was materially injured by the frosts, while the oranges produced abundantly and matured to perfection. I think oranges can be raised much quicker by budding than from the seed. I have some which have been budded only two years since, which are now about to bloom, the buds having already made their appearance. As to the adaptability of the climate of this county for the culture of oranges, I think from experience and observation there is not its superior in the State I think also, from experience, that dates, prunes, limes, lemons, and almonds can be produced with success, as they grow thrifty, and our frosts do not seem to injure them any more than other fruits.—*Thos. Wagner.*

MONTEREY.

A SERIOUS LOSS.—*Democrat*, April 1: Tuesday week, at the Gabilan rancho, the head of Jesse D. Carr's herd of thoroughbred short horns died suddenly, a *post mortem* examination disclosing no sufficient cause. The animal, known as "Sixth Lord Oxford," came from one of the most famous herds in America, his strain being the purest, and being at the time of his death in his prime. As his owner was offered for him $8 000, the money loss is heavy, though that is of much less concern than the difficulty of replacing him. A very careful man had charge of the animal. He says that on the morning of his death, he had given him his accustomed exercise, during which no symptom of disorder had appeared. At noon, returning from the exercise just as dinner bell sounded, without giving his charge anything to eat, he placed him in his stall and went to dinner. Coming back in about 20 minutes he found him stretched on the floor, suffering, apparently, great agony. His eyes were inverted and the abdominal region immensely swollen. So, thinking of the remedy employed when the fermentation of clover occasions such distensions, the keeper plunged a knife into the stomach. This was followed by a violent eruption of the gas which it contained, but, nevertheless, death soon ensued. Being opened, subsequently, a ball of hair, with its usual envelope, was found in the stomach, which, together with the other vital organs, were in their natural, normal condition; so, altogether, there was no adequate cause of death apparent. Quite a number of calves remain to keep the stock in the county, but the loss is a severe one to the particular owner, and, generally, to our stock men.

PLUMAS.

BARNS SMASHED.—*National*, March 25: Many of the ranchmen of Sierra valley and vicinity suffered heavy losses from the effects of the severe snow storms. The snow accumulated to the depth of six feet and a number of barns were crushed in, among them J. L. Crow's, of Clover valley; Scottini & Carbinis, at Lone Rock; Dedman & Bro's, Abe Ede's, D. B. Patterson's, D. Newman's and Wm. Arm's, in Sierra valley. More or less destruction of stock, hogs, etc., in each case.

SACRAMENTO.

REPAIR THE LEVEES.—*Record-Union*, March 29th: This has been a severe season upon the levees slong most all the rivers in the State. Where levees have not absolutely been broken and washed away, they have been very generally badly injured by the action of the combined wind and water. In all such cases we would remind the owners that the sooner repairs of these injuries are made after the water recedes from them for the last time in the spring the better. Soil worked and placed in a levee while damp packs much better than it does after it becomes dry. If the repairs be made or the levees be strengthened in the spring, the soil will also have all summer to settle and become capable of resisting the early high water of another season. We call attention to these things now, because we know that farmers are apt to put off this necessary work till fall, just before the rainy season commences. Work done on levees then is very likely to be thrown away. The breaking of the levee just below the town a month since is a case in point. The owners of the land upon which the levee broke neglected to repair a serious injury to their levee, which was done a year since, until after the first considerable rise in the river last fall. Seeing their property so seriously threatened by the first rise they were worked up to the point of action for self protection, but their action came too late. The soil they then put into the repairs was naturally loose and had no time to settle, and when the water came up against it, melted away as sugar melts in hot coffee. Let the levees be repaired in the spring, and don't quit work till they are made secure beyond a doubt. Danger prepared for ceases to be a danger, and in no case does this maxim apply with more force than in levecing along our rivers to control the high waters.

SAN JOAQUIN.

THE COMING HARVEST.—*Argus*, April 1: Farmers all through this section of the valley are jubilant over the prospect for an unusually large yield of cereals this year. Surrounding Merced is a solid body of grain fields comprising not less than three hundred sections of good land—adobe soil—south of the Merced river, which will yield this year an enormous amount of grain. Add to this the rich bottom land of the Merced and San Joaquin rivers, the large tract of country on the west side of the San Joaquin, which now gives promise of an excellent crop, and the large body of uplands north of the Merced river, amounting to not loss than 200,000 acres, making in the aggregate about 300,000 acres of land in cultivation in grain this year, which will probably yield an average of not less than 15 bushels per acre, affording a surplus for shipmont of 4,000,000 to 5,000,000 bushels of wheat and barley. We have for many years believed that Merced would take the lead as a wheat growing county, and confidently believe that this year she will stand second or third in the amount of grain products of the State. Should the country be favored with the usual amount of spring rain, the crop will be enormous, making this the busiest season the farmers and business men ever witnessed in the San Joaquin valley.

SANTA BARBARA.

A NEW SETTLEMENTT. — Lompoc *Record*, March 25: Information reaches us as we go to press that some thirty heads of families have taken up portions of the available lands recently excluded from the claimed area of the Purisima rancho. The city papers some weeks ago stated that 20,000 acres had been rejected by the surveyor-general from the Norway and Cooper survey of that rancho. How true this is is not exactly known, but one thing is sure—there is no such an amount excluded, or by any possibility could be, without reducing to very meager proportions Purisima proper. We suppose that the parties forming this new settlement in what is known as the Santa Rita valley know what they are about. A community of 30 or 40 families, located within so short a distance from Lompoc will be of much benefit to our town, and if the land rightfully belongs to the Government, and is no part of the Purisima rancho, we wish them every success. It would be well to be certain of this fact before improving too extensively.

SANTA CLARA.

FRUIT PACKING AT SAN JOSE.—*Mercury*, March 30: The San Jose fruit packing company from small beginnings has rapidly extended its business and its facilities, taking up addition after addition to its first factory on the corner of Fifth and Julian streets, and is now putting the roof upon a long, two-story building, which will increase its capacity from that of last season nearly one-half. And then further, to show the importance of this comparatively new enterprise, we might remark that Stephens, Mantz and Groom are putting up a large building on Fourth, north of Julian street, to be used as a factory for fruit packing, pickling, etc. The senior member of this new firm, late Secretary of the San Jose fruit packing company—identified with it from the start—brings to the new company strong assurances for its success; and the fact that they have purchased a lot close by the railroad track so that a side track can be run to or into it, shows that they have an eye to economy in business, as well as expectation of a large business.

STANISLAUS.

REJOICING.—*News*, Mar. 30: The people of West Side were jubilant over the news that the West Side Irrigation Bill had passed both Houses of the State Legislature. Bonfires were built, cannons fired, flags waved, and a general rejoicing was the order of the day.

NEW TRESPASS LAW.—The trespass law has been so amended as to require the establishment of a pound in each township, and the making of constables ex-officio pound masters, who shall, in case of damages for trespass not being paid by the owners of stock in a given time, proceed, after advertising, to sell such depredating animals and pay all costs.

TULARE.

WIDE TIRES.—*Delta*, March 30: In Tulare, the subject of wide tires has received some consideration we judge from the fact that numbers of our most thrifty farmers have adopted the wide tire, notwithstanding the disadvantage they suffer from running on the same roads with narrow tires. It not only shows good judgment, but a merciful thoughtfulness for that natural friend and pet of mankind, the noble, patient and dutiful horse. It is economy too, and in the old countries, where the closest calculation little more than serves to make ends meet, the wide tire is universal for heavy wagons, the law imposing a tax on all narrow tires. Nevertheless, we do not think much legislative action on this subject is needed—at least not until the subject has been more generally discussed, and its merits made more familiar. Until this is done, the law would be a dead letter for want of a public sentiment to sustain it.

VENTURA.

CARE OF POTATOES.—*Signal*, March 25: To preserve the good qualities of the potato it should be kept in a dark, cool place, instead of lying in the field a long time after digging, then brought to market as opportunity offers, bartered to our merchants where they get another airing and sunning on their platforms, and retailed to us (potato hungry wretches) to be cut up, one third waste in paring and two-thirds to be served by our cooks as good as possible. At best it makes wry faces at meal time, in worrying down, about half the cook has served, and finally calls in the dog and chickens to claw over and waste the rest. Thus the nice grown potatoes are disposed of.

YOLO.

A NEW HOG.—*Democrat*, March 30: Mr. Jeff. Pockman has a pair of pigs of a new variety in this part of the world. They resemble the Berkshire breed somewhat, but yet are different. They were imported from some of the Pacific islands. Any one can see them at his residence in Woodland.

AN OLD CLAIM.—After years of strenuous effort, Mr. Hoagland, of Washington, Yolo county, has got his bill through to permit himself and others to get damages from Sacramento city. After the flood of '61-2, the Sacramento Levee Commissioners caused the current of the American river to be turned from the old bed and into the Sacramento, further up. Some years thereafter came a very high water, and the Yolo levee opposite the new mouth of the American gave way, by which the property of Hoagland and many others was destroyed. Hence his suit against Sacramento, he claiming that if the channel of the American had not been changed he would not have suffered loss.

"Sometime."

"Sometime, when all life's lessons have been learned,
And sun and stars forever more have set;
The things which our weak judgment here has spurned,
The things o'er which we grieved with lashes wet,
Will flash on us, and light dark night,
As stars shine most in deeper tints of blue,
And we shall see how all God's plans were right,
And what we deemed reproof, was love most true.

"And we shall see how, while we frown and sigh,
God's plans go on as best for you and me,
And how He heeded not our feeble cry,
Because His wisdom to the end could see.
And e'en as prudent parents disallow
Too much of sweet to craving babyhood,
So God, perhaps, is keeping from us now
Life's sweetest things, because it seemeth good.

"And if sometime commingled with life's wine
We find the wormwood, and rebel and shrink,
Be sure a wiser hand than yours or mine
Pours out the portion for your lips to drink;
And if some friend we love is lying low,
Where human kisses cannot reach his face,
O! do not blame the loving Father so,
But wear your sorrow with obedient grace.

"And you shall shortly know that lengthened breath
Is not the fairest gift God gives His friend;
Sometimes the sable pall of death
Conceals the sweetest boon His love can send.
If we could push ajar the gates of life
And stand within, and all God's workings see,
We would interpret all the's doubt and strife,
And for each mystery could find a key.

"But not to-day. Then be content, poor heart;
God's plans, like lilies pure and white, unfold;
We must not tear the close-shut leaves apart,
Time will reveal the calyxes of gold.
And when, through patient toil, we reach the land
Where tired feet, with sandals loosed, may rest,
Where we may clearly know and understand,
I think that we will say, 'God knew the best.'"

Gleanings from Astronomy.

[Written for the PRESS by MRS. GEORGIE D. W.]

'Tis nightfall; and once more the Evening star, in her effulgent brightness, glorifies the western sky, descending (as it were) in eagerness to hail the Pleiades, or to catch the parting glances of the young moon, as she poises one trembling point upon the mountain's brow, lingering but a passing moment, then sinking behind the rocky hights, leaving the little group, now assembled on the cottage porch, in darkness, and gazing in admirstion on the radiant rival, who, as a brilliant harbinger, ushers in her train of shining stars. Already our young companions are busily examining a cluster of stars through the telescope, while sounds of merry voices are heard approaching; but this time a childish voice is in the ascendency. Two forms advance,—one is an aged, white haired grandfather; the other a little golden haired girl, clinging to his hand, who, springing to the front, exclaims: "Here is grandfather!" Involuntarily we all arose. Drawing forward the large arm-chair, I had been appropriating, I said pleasantly: "Let me resign the seat of honor to you, father dear."

"What a fine representation the Colonel would make of the ancient philosophic Epicurus," said Miss Florence, our young teacher. "And this the beautiful Atheneum garden," I returned. "A very pretty compliment, Miss Florence," was the Colonel's reply; "but I cannot accept the appellation of the first. All men may be 'Epicurians,' but very, very few, philosophers." "Was not Epicrus a philosopher?" I questioned. "Yes," answered the Colonel, "in one sense he was, but his philosophy consisted of acts, not words. He solved the problem of a happy life by practical examples, illustrating that practicing the virtues, not expounding them, was the secret of rightly understanding their worth; yet he was not what the world would call a philosopher, for he spoke in a soft and persuasive voice, and was not a stoic; but simply taught his sublime doctrine by practical example."

"Then Epicurus didn't lecture much, did he, grandfather?" said Kate. "No, but if I am to be your Epicurus, and this, the fair Atheneum garden, *you* will have to represent the scholars." "No, no!" cried Kate, "we are the scholars of your old pupil, and have come to talk about the stars."

"Come, that will never do," said the white haired sage. "We must have no opposition school; no Timocrates; no followers of the stoic Zeno." "Say, rather Zenocrates," playfully interposed Florence. "What! the crazy philosopher, who, while gazing at the stars, fell into a basin of water and was drowned," was the questioned answer. "Nay, father, you are satirical," I returned in a piqued tone. 'If you and Floy wish to appropriate my identity with any of your classical ideas, pray let it be some more congenial one." "Such as an humble worshiper at the tomb of Virgil, a silent devotee at the shrine of Homer?" was the conciliatory rejoinder. "Or it may be," compromised Florence, "a loving follower of Milton, ever soaring on the wings of inspiration to the celestial realm of the stars."

"Come," said the venrable questioner quietly changing the conversation, "you must not let me interrupt your anticipated stroll among the stars to night; but rather let me join your number."

"Well, to commence, what was the subject of our last investigations, Miss Katie?" "The constellation Orion," was the quick reply. "Right, now observe the change," I continued. "When we observed, Orion last January, the Pleiades were on the meridian; Aldebaran and his little V cluster, were 14 degrees southeast of the Pleiades, and still farther, 16 degrees southeast of Aldebaran and the Hyades, was Orion. Now notice the change, on this, the 21st of March. The Pleiades are due west, nearing the northwestern horizon, Aldebaran following in all his regal splendor, while the splendid Orion parallelogram lies in the southwest. And by such observations you will also understand the apparent diurnal motion from east to west."

"Orion is splendid to-night," said Florence. "and has more the appearence of a mighty warrior than when we last noticed him in the east, or on the meridian." "Yes," I continued. "the further it advances toward the western horizon, the more it resembles a wonderful form, as of a giant figure rushing down a hight." I was quickly seconded by my young companions with various quotations, and metaphorical allusions to Orion.

"But tell us what principal constellation is on the meridian to-night," said grandfather. "The most beautiful and familiar ones have passed the meridian. Proserpe, in Cancer, that little cluster yonder, just perceptible to the eye, is the only important one." "Was Orion on the meridian last month?" questioned Kate. "Yes, about the middle of February, I think. My map places Bellatrix on the meridian on the 21st of January."

"Come, Katie," I remarked playfully. "we must be more particular this time; you remember we got our map upside down before." "Yes, and what a consternation it created among us!" "Well, to make it all right," answered the good father, "a mistake rectified by conclusive argument, stands correct. And for the proof, Miss Kate, since you have been the diligent student, give us the correct Orion diagram."

"But first, Kate," I interposed, "always remember that in the delination of our maps or diagrams, the position in which we view the heavens is of the utmost importance. In observing the south circumpolar constellations, let it always be understood, that the face is directed to the south, with the zenith for the north, east for the left hand, the west for the right hand. And when looking at the north circumpolar stars, the position is completely changed. The zenith becomes the south, the right hand is upon east, the left hand upon the west. By thus observing, we shall obviate many perplexities."

"But to the Orion," said the impatient Kate, who had been examining the map by the light in the parlor window, "shall I commence as we did before, at the Pleiades?" "Yes," I remarked, "they are a good starting point."

"The Pleiades," continued Kate, by way of a review of the previous lesson, "are in the west, about half way between the zenith and the northwestern horizon. A direct line, 14 degrees southeast of the Pleiades, brings us to Aldebaran and the Hyades in the same constellation. Then, 16 degrees from Aldebaran, finds the wonderful giant, Orion, west of the meridian, in the southern portion of the heavens. Orion is distinguished by the four brilliant stars in the form of a parallelogram; and particularly by the three bright, equidistant stars in the middle of the square, commonly known as the 'three kings,' or the 'bell' or 'yard.' The little needle-like cluster, running obliquely from the belt, is Orion's sword."

"Yes, but it points *upward* to the middle of the three stars which form your warriors' belt," said Mary, playfully.

"O! I have nothing to do with that," laughed Kate, "I am giving statistics now." "Very well, proceed, I will not interupt you again," was the pleasant return. "Orion's sword contains the wonderful Orion nebula. The whole number of stars in this constellation, as seen by the naked eye on a clear night, has been reckoned by the astronomers at about 78; but many thousand are seen by a good telescope. Orion's principle stars are contained in the square, of which two are the first magnitude Rigel and Betelguese.

"Bellatrix, the next bright star of the third magnitude, and is the first star in the parallelogram. A little north of Bellatrix, in a direct line eight degrees east by north, is Betelguese. Fifteen degrees due south by east, is Saiph—a star of the third magnitude; and about eight and a half degrees toward the west is the brilliant star, Rigel. Again, a line 15 degrees back to the northwest—the starting point—meets Bellatrix, the first star named. Thus Orion's parallelogram is done."

"Very well done, too," remarked grandfather. "Yes," I returned, "but in our investigation of Orion, we are neglecting some of the most striking constellations. Many of the constellations we so much admired in January have now disappeared, such as Pegasus, Pisces, and others.

"But, turning our face north; in the east the most striking one is the constellation of Ursa Major, or the Big Dipper. The two pointers, Dubhe and Merak, are near the zenith; the whole Dipper turned upside down. The stars forming the handle seem to hang down from the square. Benetnach, the first star in the handle is due east. Cassiopeia is very bright; it is one of the circum-polar constellations, and is always seen near the Dipper. A line projected through the Dipper and the Pole-star meets Cassiopeia at near the same distance on the opposite side of the Pole-star, which is nearly equidistant between that constellation and the Dipper. When the Dipper is at the lowest point below the Pole-star, Cassiopeia is near the zenith, and *vice-versa*, always following in the circle, as the Dipper revolves around the Pole-star, and always above the horizon, completing their circle every 24 hours.

"If the Dipper at six o'clock in the evening is in the west of the Pole-star, six hours after you will observe that it has changed position, and appears below the Pole-star. At six o'clock the next morning you will find them opposite the first position, in the eastern part; at 12 o'clock, or noon, if you could see them, you would find they were directly above the Pole-star, and at six in the evening they will have gained their first position."

"The Northern Crown is quite plain to-night," said Florence, "It is very easily distinguished by the six bright stars which form the crown." "Yes," I returned, "the principle star in the constellation of the Corona Borealis, or Northern Crown, is very bright to-night, indeed; one can scarcely tell it from Arcturas. But it is northeast of Bootes, you can readily trace from Serius, (the Dog star), west of the meridian; Procyon, a few degrees past; Castor and Pollux, directly north of Procyon, they likewise have passed the meridian. Menkar, in the head of the Whale, is within a few degrees of the western horizon. Aries is also near the western horizon. Further east, by north, and about 14 degrees above the horizon, is the constellation Bootes, and further still to the north, at a lower elevation, is the Corona Borealis, or Northern Crown, in which the bright star, Alphacca, that you think resembles Arcturus."

"What an extended field is opened to our minds for the investigation of science and truth," remarked grandfather, enthusiastically. "But who by searching can find out God," I returned gently, "Milton has beautifully written:

'Heaven is the book of God, before us set,
Wherein to read his wondrous works?'"

"But when shall we enter this wonderful temple, not made by mortal hands," mused the white haired man. "The further we proceed in the investigation of the heavens, the more the magnitude of the creative power and wisdom of the Almighty Maker becomes; so enlarged and magnificent do his works appear, that human imagination is lost amid the sublimity. The splendor and vastness of its infinitude so forcibly strikes the innate spirit of worship, that we are ready to fall down in adoration before the Almighty and Eternal Maker, God!"

"And not only," I remarked, "do those beautiful stars, with their holy and benign influence, soften and purify the finer feelings of the soul, but as an universal timepiece of the world, and a part of the whole of the Creator's grand designs, they guide the traveler as he wanders from continent to continent, enable the astronomer to estimate the globe on which he dwells, to determine the length of the days, years and months, and furnish the means, to some extent, for measuring the inconceivable distances in the great illimitable, starry space. But you must acknowledge, above all their power, to amplify our views of that Almighty Being who called them into existence." "And the gift of appreciation and knowledge to understand is indeed happiness," I said.

"What is happiness, grandfather?" asked the quiet, listening Mary. "My dear daughter, the first step to happiness is knowledge. But I can explain better in the language of the gentle Epicurus."

"It is neither in the raging torrent or the stagnant pool, but in the clear and limpid stream that glides along its way, turning aside to let each shrub or rubbish pass; then onward in its self-same course, murmuring joyfully. Thus, with human kind, many of the ills of life are creatures of our own imagination, caused by our own obstinacy and opposition to the inevitable."

As if in soliloquy, in a meditative voice, he continued, "What is poverty, if we only have temperance to be content with a draft of cold water? What is slander, if we have no vanity for it to wound, no anger to kindle? What is neglect, if we have no ambition for it to disappoint, no pride to mortify? And what is persecution, if we have within our bosoms the conscious assurance of a true and virtuous life?"

"Yes, that is true happiness, father," I observed. "The conscious assurance of having done our whole duty, according to our best abilities; and wise indeed is he—

'Who unshrinkingly hath stood temptations of the Evil One,
And held his course for good;
Has spurned the crooked by-paths, put aside the gilded sin,
Unswayed by any voice, but the still soft voice within.'"

"That is it, my daughter," the old man said. That still soft voice within, which is the approving voice of the innate virtues. Prudence, the mother of all virtues; fortitude, her handmaid; with justice and generosity, gentleness and gratitude, their combined assurance gives us true happiness.

"The ancients held the virtues in great veneration," I returned. "You remember Marcellus, the great Roman consul, had two magnificent temples erected, one to Virtue, the other to Honor. They were so constructed that to enter the temple of Honor it was necessary to pass through that of Virtue. The principal virtues being represented by statuary. Prudence came first, and was recognized by the rule and square; temperance was known by the bridle; justice, by the balance; truth, by her transparent vestments; modesty, by the beautiful veiled nymph; tranquility, by a simple figure leaning on a column in the attitude of quiet and repose; liberty, by her cap, and mirth, by the myrtle wreath."

"But, behold! how the time has flown; Orion is half way to the horizon, and the Pleiades are just visible. Come, we must practice the virtues we have been expounding. The dictates of prudence are to bid each other and our readers—good night.

Tempers.

Few men have sweet tempers, or hold such as they possess under steady, invariable control, though they are men, who, without this sweetness of nature, however much tried, never seem to lose their self-command. No public man can get on long who has not his temper well in hand; but with the same amount of inflammable particles, men differ very much on the occasions that set fire to them. Some people, who are all composure when we might reasonably expect and justly excuse an explosion, will break down into peevishness, or passing frenzy on slight provocations. We have known men, quite remarkable for a well bred serenity, be unreasonably and childishly testy at some transient annoyance of a sort they are not used to. Highly sensitive organizations and intellects kept on the stretch, are always irritable.

De Quincy, who has no heroes, says that Wordsworth, with all his philosophy, had fits of ill temper, though the unexampled sweetness of his wife's temper made it impossible to quarrel with her. The two great hymn-writers and good Christians, Newton and Toplady, met but once, and but for a few minutes, yet something passed—a trifling jest—which upset Toplady's equanimity, and made his parting words, we are told by friendly by-standers, not very courteous. There are times when men think they do well to be angry, and attribute their display of ill-temper to a holy impulse, while the observer sees only a common pet—exposing itself at the most unsuitable moment—at the failure of their efforts to attract and impress, perhaps to shine. The preacher is particularly subject to the temptation of an angry remonstrance uttered in the spirit. It must be hard to feel your best passages lost through restlessness of school children or the infectious inattention of the singing gallery; but it seldom answers to allow the chafed spirit its fling. The parson may be in a passion without knowing it, but not without the congregation being quite alive to it, and the remembrance of a scene outliving every other effect of his discourse.—*Blackwood's Magazine.*

THE AUTUMN HOUSE CLEANING.—She has got on a torn dress, hitched up at one side sufficiently to reveal an unbuttoned shoe; there are flakes of whitewash in her hair and on her chin; her dress is wet, her fingers are parboiled, and her thumb has been split with the hammer, but her eye is as clear and bright as that of a Major-General on field day. She picks up a handful of skirts and skims through the apartments, seeing five hundred things that should be done at once, and trying to do them; and every time she comes in reach of the dresser, she snatches a look into the glass and shoves a fresh hairpin into her dilapidated coil. And thus planted in the debris, like a queen on her throne, she unblushingly asserts that "It's an awful job;" "Everything is in wretched shape," "I'll be so glad when this is over;" "It does seem as if my back would snap in two;" "I'm a good mind to say I'll never clean house again so long as I live." And then her mind unconsciously soars heavenward, and she wonders if there will be a house-cleaning season there, and if not, how a heaven can be made of it. It is this speculation which gives her that dreamy expression when she is cutting your bread with a soap knife.—*Danbury News.*

NO TIME TO READ.—We have often encountered many who profess to believe they have no time to read. Now we think of it, there have always been men of such characters, the points of which are easily summed up.

Nine times out of ten, they are men who have not found time to confer any substantial advantage either upon their families or themselves.

They frequently spend whole days in gossiping, tippling and swapping horses, but they have no time to read.

They sometimes lose a day in asking advice of their neighbors; sometimes a day in picking up news, the prices current, and the exchange, but these men never "have time to read."

Such men generally have uneducated children, unimproved farms, and unhappy firesides. They have no energy, no spirit of improvement, no love of knowledge; they live "unknowing and unknown," and often die unwept and unregretted.—*Ex.*

THE Hindoo holy book forbids a woman to see dancing, hear music, wear jewels, blacken her eyebrows, eat dainty food, sit at a window, or view herself in a mirror during the absence of her husband, and allows him to divorce her if she has no sons, injures his property, scolds him, quarrels with another woman, or presumes to eat before he has finished his meal.

AMONG the privileges allowed the ladies this year is that of giving up her car-seat to a gentleman, but we don't believe she will do it.

Starving Souls.

Millions are perishing, not because their bodies are starving or freezing, but because their souls are. The inward woe they feel most is the cry, "No man cares for my soul!" No *man*—it is not that *God* does not care for their soul; He does care with infinite tenderness; but *man*, through whom God's love should find expression, does not care. There is not enough of the love of God in the hearts of men around them to express His care. Their souls are dying for want of human sympathy. As we must show our love to God in the good we do to man, so God chooses men, chooses us if we will, as the channels through which He shows His love to men. More than in the sunshine, more than in the rain, does the love of God fall upon human hearts. That is the medium through which He must show His love. There is no power of blessing, of salvation even, ever touches the needy or the depraved, like that which awakens in them the assurance that they are loved. It is life. Behold, then, how simple the work! In ten thousand ways you can express the care of love. You can make souls feel that they are loved. It does not need wealth. The lack of great talents is no bar in the way. Adversity of circumstances is often the best teacher here. The smallest act will often carry the divine meaning over to a perishing heart with resistless power. A look, a smile is the light of God. The way is easy and open to all. Have the heart of divine love, and it comes forth into expression as naturally as the rose blooms or the diamond shines.—*L. Hamilton.*

Singular Coincidences.—On Tuesday, the 22d of February, at the same hour of the day and the same minute of the hour, Deacon Noah Pease and his wife Lucinda, of Ellington, who were united in marriage over 63 years ago, passed away from this life together, and entered upon the life to come almost without any separation, even by death itself, and this not by the same disease, but by diseases entirely distinct and unconnected. Both were over fourscore years of age. This may be well called a rare occurrence.—*Rockville (Conn.) Journal.*

We can match the above by the following occurrence which is said to have recently reached its climax at the places named in this State: "A few years ago, there resided at the Mission San Jose, in Alameda county, two young ladies, between whom, although not of kin, a strong friendship existed. They were married at the same time and by the same service. They took up their residences, one at Hayward and the other at Alvarado. In the course of time they gave birth to children on the same day, the birth of one child preceeding that of the other by two hours. Three weeks later both children died on the same day, the eldest dying just two hours before the other. Three weeks after the death of the children both mothers died on the same day."

Harmony in the Married State.—Says the illustrious Thomas Jefferson: Harmony in the married state is the first thing to be aimed at. Nothing can preserve affection uninterrupted but a firm resolution never to differ in will, and a determination of each to render the love of the other of more value than any earthly object whatever on which a wish can be fixed. How light, in fact, is the sacrifice of any other wish when weighed against the affections of one with whom we are to pass our whole life? Opposition in a single instance will hardly of itself produce alienation; that only takes place when all the little oppositions are but, as it were, in a pouch, which, while it is filling the alienation is insensibly going on and when full it is complete. It would puzzle either to say why, because no one difference of opinion had been marked enough to produce a serious effect by itself. The affections are wearied out by the constant stream of little obstacles.

A Grave Proposal.—An Irish girl, who was very anxious that her scatterbrained brother should not be refused by the demure young Englishwoman with whom he had fallen desperately in love, implored him to try to propose with the seriousness becoming the occasion. He vowed solemnly that he would behave as if he were acting as chief mourner at his father's funeral. The demure young lady, in imitation of many of her countrywomen, graciously accepted her wild Irish lover. She, however, confided to her bosom friend that Edmund had proposed in rather an odd way. He had taken her after church to see the family vault, and had there, in a sepulchral voice, asked if she would like to lay her bones beside his bones. This he evidently thought was a proper way to fulfil the promise made to his sister of treating the matter with becoming seriousness.

A New York temperance lecturer says one of the chief causes of the present financial depression is alcoholic indulgence. The Boston *Post* asks: "Does he mean to say that money is 'tight'?"

A Geologist says that he never heard of secondary formations without pleasure—the ladies being the secondary formations, for they were formed after man.

Experiments with young grasshoppers at Jackson, Maine, have shown that they may be frozen and thawed several times without impairing their power to return to life.

Young Folks' Column.

Excess in Novel Reading.

[A Davisville school girl sends us the following with a note in which she says: "Excuse me for the libery I am taking in sending you this piece. I am going to school, and this is an essay I read there."]

In this day of cheap literature, excess in novel reading is the bane of our lives. Fictitious writing has been read ever since literature of any kind first received attention; but it has multiplied to such a great extent that it has been said that the works of fiction now printed exceed any other class of writing, if it is not equal to all the other classes combined. While I do not object to the reading of novels when interspersed with works of a different nature, I do emphatically object to the way in which many read them, that is to the exclusion of all other works.

There are a great many first-class novels which are useful in inculcating historical and religious truths. These are very interesting, and it would be well for us if we were to limit our "light reading," as it is called, to this class. I am, however, sorry to say the majority of us spend a great portion of our leisure moments in following some wonderful hero or heroine through great, hair-breadth escapes, such as the characters found within yellow-backed novels are fond of getting into. The heroes are all brave and noble, the heroines all queenly and beautiful, but it seldom occurs that we find the readers of these uncommon creatures inspired by their daring deeds to do anything very extraordinary. They never find it easy to be as noble as they like their heroes to be. But even allowing that a few may be benefited by their perusal, the evil novel reading has wrought over the rest will more than counter balance all the good it will ever accomplish.

We all know the evil influence such writings have over the happiness of our daily lives, and how hard it sometimes is, after reading the last leaf, to return and find things around us not all that "fancy painted." I say return, because the best of us if interested enough to read a book through will find, that though we are not literally carried away, yet our thoughts go with the heroes as far as possible, and it is sometimes not until the words in the good old fairy tales, "and they all lived happy for ever and ever" meet our eyes, that we thoroughly realize there never were such beings in existence. If this evil were all, it would not be so great, but histories, and all other works of a higher nature, seem dry and tiresome unless clothed with the glowing descriptions of romance. It is said by physicians that indiscriminate and excessive novel reading is detrimental to the mental faculties, as it keeps the mind in a constant state of excitement, and hence impairs the memory. J. W.

Work for It.

Boys want to be rich, great, or good, without working. They think that learned, wealthy, and influential men are very fortunate, that they have easily slipped into their respective spheres. They scarcely ever think that by hard work and dint of perseverance most of these men have risen to their present positions. Idlers never rise in the world. God does not reward laziness by "riches and honor." God did not make man to be useless and live at ease and reap without sowing. When farmers can sow and reap on the same day, and trees blossom and yield fruit on the same day, and not until then, can boys hope to become men of marked influence and acquisition without working for it.

A splendid carriage rolls along the street. Boys look at it and say to themselves, "He's a fortunate man; what an easy time he has! Some day we may have a windfall and not be obliged to work for a living."

They scarcely dream that the occupant of that costly vehicle was probably once a poor boy, who worked hard many years, winning the confidence of all around him by his industry, integrity and noble bearing. Had he been as idle and loose as many boys are, he would not have owned the carriage nor have been a millionaire. Many years of earnest toil, struggling to overcome obstacles, practicing the most rigid economy, and bravely holding out against great discouragments is the secret of his success.

Daniel Webster could make a great speech. Boys heard him, and said, "What a gift! How fortunate he is to possess such talents!" The thought hardly entered their heads that hard work enabled him to do it. The first time he undertook to declaim in a school room he broke down. But persevering industry overcame all obstacles. By hard study year after year, and equally diligent practice, he became the distinguished orator. Take away a quarter of a century from his life, in which he carefully qualified himself for his profession, having no idle hours, and no "bed of down," and the world would not have known Daniel Webster. Boys should not forget this. He could make a great speech because he worked for it.

Boys, it is a good rule that nothing valuable in this world can be had without working for it. And the time to begin work is now.—*Ex.*

Good Health.

Eat Celery.

We notice with satisfaction that celery is becoming more common and cheaper in our markets; its cultivation cannot be too strongly recommended to farmers, as by its production they not only grow a profitable plant, but confer a favor on the community, as the habitual daily use of this vegetable is much more beneficial to man than most people are aware of.

A writer who is familiar with its virtues says: "I have known many men, and women too, who from various causes had become so much affected by nervousness that when they stretched out their hands they shook like aspen leaves on a windy day, and by a moderate daily use of the blanched footstalks of celery as a salad they became as strong and steady in limb as other people. I have known others so nervous that the least annoyance put them in a state of agitation and they were in constant perplexity and fear, who were also effectually cured by a moderate daily use of blanched celery as a salad at meal time. I have known others to be cured of palpitation of the heart. Everybody engaged in labor weakening to the nerves should use celery daily in the season and onions in its stead when not in season."

To this we may add that a prominent New York druggist draws in winter from his soda fountain a hot extract of celery, mixed with Liebig's meat extract, under the name of ox-celery. It is a nourishing drink at lunch time, far better than coffee or tea, and is doing a great deal in this neighborhood to promote temperance. Distilled drinks are no better for a man than a whip is for a horse to make him work; oats are better than the whip, nobody will deny that, and to keep up the strength of a human being ox-celery or beef tea is better than whisky, but this fact many do not appear to know or realize.

But to return to celery. We give it almost daily to our canary birds and it cures them of fits; they are little animals, with very delicate nerves, easily frightened, and therefore they need such a remedy very much, and the relish with which they take it is a proof that their instinct guides them to eat what is good for them.

A manufacturer of perfumery of our acquaintance some years ago commenced to prepare an extract of celery seed, put up in bottles, and intended to give strength to old or exhausted persons, who, by over-indulgences, have reached such a state as to require restoratives.—*Boston Jour. Chemistry.*

Health Maxims.

We breathe in sleep about 15 times every minute.

If the bowels are loose lie down in a warm bed, remain there and eat nothing until you are well.

Do not allow yourself to read a moment in any reclining position, whether in bed or on a sofa.

Never swallow an atom of food while in a passion, or if under any great mental excitement, whether of a depressing or elevating character; brutes won't do it.

The importance of wholesome water and good sewerage to every single dwelling cannot be over-estimated, and any city neglecting this vital matter must expect to suffer at all times, and particularly when an epidemic of any kind sweeps over the country.

To be able to lie down at night and fall to sleep within ten minutes, and to know no dream or waking until the morning comes, and then to bound out of bed full of health, freshness and good humor, is a blessing well worthy the warmest outgushings of a thankful heart towards Him who giveth us all things richly to enjoy.

The great regulator of sleep is exercise; it is the best anodyne in the universe, and it is the only one that is always wholesome and natural. If you cannot take much exercise, take a little, and every second hour increase the distance, and soon you will be able to walk a mile more easily than you walked the first hundred yards.

If an action of the bowels does not occur at the usual hour eat not an atom until they do act, at least for 36 hours; meanwhile drink largely of cold water or hot tea, and exercise in the open air to the extent of a gentle perspiration, and keep this up until things are righted; this one suggestion, if practiced, would save myriads of lives every year, both in city and country.—*From Dr. Hall's Maxims.*

Shampooing (Scalping). — An intelligent writer in the Chicago *Tribune* protests against the practice of shampooing. He says this repeated application of stimulating washes destroys the hair, and is almost equivalent to scalping. He is surprised that there are any men with full heads of hair left, and advises all young men to discontinue this pernicious practice.

Put some extra bedding on the foot of the bed at night to give the feet added warmth, and to be drawn up higher if needed before morning. The feet need special attention, as one of the best rules of health is to keep the head cool and the feet warm. Don't encourage cold feet by wearing shoes a size too small, for this will check the circulation.

Domestic Economy.

Vegetables.

All green vegetables should be as fresh as possible. Put them into cold water with some salt in it, for about ten minutes, to clear from soil or insects. If not quite fresh let them remain in the water some time longer; drain in a colander and put them into a pan with plenty of boiling water, adding salt and a small piece of soda; cover the pan till boiling, but not afterward; then boil quickly, and carefully remove any scum which may rise. Do not allow them to remain in the water after they are done, but immediately drain them in a colander and finish each kind, as directed in recipes. Peas and spinach do not require so much water as most other green vegetables, but only just sufficient to cover them. Cauliflowers and brocoli require especial care in boiling, as the flower is easily broken and their appearance spoiled; boil them quickly for a few minutes, and then moderately till tender, which may be easily ascertained by trying the stem with a fork. All vessels used in cooking vegetables should be particularly clean. Soft is preferable to hard water in cooking all kinds of vegetables. Potatoes are in universal use, and yet how few know how to cook them well! "A well boiled potato is a thing purely ideal—it has never come out of the pot, in the experience of living man." This is too strong; but there is very much room for, and need of, improvement in the *science of cooking a potato*. To do it *well*, the matter must be *studied*, and not performed by routine. They differ very much, even those grown in the same field and from the same seed. A good potato, well cooked and served up, is a luxury, which, unfortunately, few people know how to accomplish, or will not give themselves the trouble to do.

Choice of Milk.

Cow's milk differs greatly in quality, some being rich and other thin and watery. In choosing a family cow it is well to bear this in mind, and select only those that are healthy and give the very best milk. They should also be fed on the best of food and allowed pure soft water to drink. The practice of feeding cows on garbage, swill slops, distillery feed, and of keeping them confined in close, filthy, unventilated stables, is one which seriously deteriorates the milk and should ever be avoided.

Those who live in cities cannot of course keep cows, and so they must depend on the market for their supply of milk. In such cases insist on having the best article and refuse to use that from distillery-fed cows, or that diluted with water. A little attention to this subject will enable any one to secure a good article. It is the laxity of purchasers of food in not demanding the best that makes it so easy for the dealer to palm off adulterated and inferior articles upon thoughtless people. If the poor would do this it would improve their own and their children's health wonderfully. The milk supply of a city has a great deal of influence for good or evil on the health of the children. In England this question is getting to be a very important one. The *Food Journal* says that "perhaps the most serious and destructive change in the nutrition of the poor is their almost total privation of milk. Infantile sickness and mortality depend largely on this want." There the occupation of mothers in factories and work shops deprives many thousands of infants of their natural food—breast milk.

French Household Economy.—The French butcher separates the bones from his steaks, and places them where they will do the most good. The house wife orders just enough for each person, and no more, even to the coffee. If a chance visitor drops in, somebody quietly retires, and the extra cup is so provided, but nothing extra by carelessness of intention. When the pot has boiled, the handful of charcoal in the little range is extinguished, and waits for another time. No roaring stoves and red-hot covers all day long for no purpose but waste. The egg laid to day costs a little more than the one laid last week. Values are nicely estimated, and the smallest surplus is carefully saved. A thousand little economies are practised, and it is respectable to practice them. Cooking is an economical as well as a sanitary and gustatory science. A French cook will make a franc go as far as an American housewife will make three, and how much further than the American Bridget nobody knows—we should probably be greatly astonished, could the computation be made, how much of the financial, recuperative power of France is owing to her soupe and her cheap food; better living, after all than the heavy bread and greasy failures of our culinary ignorance.—*Springfield Republican.*

A good cook is not the one who uses the most and richest ingredients, regardless of the expense; but she who studies economy, and is able to concoct a delicious meal from scanty materials.

Egg Sandwiches.—Boil fresh eggs five minutes; put them in cold water, and when quite cold peel them, and after taking a little of the white off each end of the eggs, cut the remainder in four slices. Lay them between bread and butter.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week.	1 month.	3 months.	1 year
Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, April 8, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Harvesting Machinery: Thoroughbred Cattle; Irrigation in India, 225. The Week; Marketing Honey; The Wool Clip; California Manufactures, 232. Agriculture at the Capital; Stock Breeders' Meeting; A Curious Plant, 233. Patents and Inventions, 236.

ILLUSTRATIONS.—Walter A. Wood's Reaper and Self-Binder, 225. Doryanthe Eleve, 233.

CORRESPONDENCE.—Botanical Excursions; San Bernardino; "A Word to Grain Growers," 226.

THE GARDEN.—Growing Onions; Successful Gardening in the Mountains, 226.

HORTICULTURE.—Development of Our Fruit Resources, 227.

THE DAIRY.—How to Improve the Herd, 227.

THE SWINE YARD.—The Farmer's Hog, 227.

SHEEP AND WOOL.—Tanning Young Lamb Skins; The Mohair Business, 227.

PATRONS OF HUSBANDRY.—A Valuable Grange Publication; Let in the Hired Man; A Day for Tree Planting; Commencing Work; Oregon State Grange: The Debris Question in the Grange; From the Granges; Grangers' Business Association Meeting; The Grange a Social Order; What it has Done; Election of Officers; The Grangers' Bank of California; In Memoriam, 228-9.

AGRICULTURAL NOTES from various counties in California, 229.

GENERAL NEWS.—General News Items and Miscellaneous Paragraphs on 229 and other pages.

HOME CIRCLE.—"Sometime;" Gleanings from Astronomy; Tempers; The Autumn House Cleaning; No Time to Read, 230. Starving Souls; Singular Coincidences; Harmony in the Married State; A Grave Proposal, 231.

YOUNG FOLKS' COLUMN.—Excess in Novel Reading; Work for It, 231.

GOOD HEALTH.—Eat Celery; Health Maxims; Shampooing (Scalping), 231.

DOMESTIC ECONOMY.—Vegetables; Choice of Milk; French Household Economy; Egg Sandwiches, 231.

QUERIES AND REPLIES.—Fruits and Grasses, 233.

USEFUL INFORMATION.—Things Which it is Well to Know; Buttons from Pebbles; Brightening Iron; To Take the Rust off a Plowshare; Glass Cement; Engineers' Cement, 234.

ARBORICULTURE.—Growing Encalyptus from Seed, 238.

NEW ADVERTISEMENTS.

Patent Cylinder Gopher Trap, R. E. Wood, Santa Cruz, Cal.; California Fruit Dryer, Sacramento Plow Manufacturing Co.; Ryder Compression Air Engine, Huntington, Hopkins & Co, S. F.; Notice to Farmers, E. O. Hunt, S. F.; Chufas and Japan Pears, A. F. White & Co., Nashville, Tenn.; Grangers' Bank of California, S. F.

The Week.

Again we have had the sweet visitation of gentle showers coming like benedictions to round the blessings of this harvest year. These spring showers but render assurance doubly sure to the agriculturist. Grain, grass and grapes, fruits and flowers, all answer with gladness to the refreshing, and all put forth new vigor to redeem the early promises of the year.

Again our table holds a budget of good words from the growing crops in nearly all parts of the State, and again we are forced to press a column of good notes into a paragraph, until the sweetness fairly crystallizes under the pressure. We can but call the roll of the counties which have reported to us: Amador, blossoms; Calaveras, frost but no harm; Contra Costa, late sowing good with rain; El Dorado, frost and possible damage to peaches; Lake, assured of good harvests; Los Angeles, most gratifying prospect; Marine, too wet and too dry in spots; Napa, grain splendid, hay good, fruit promising, hops wintered well; Merced, more favorable outlook never known; Sacramento, early sown grain looking well, orchards in bloom; Sonoma, fine weather induced almost the usual breadth of seeding; Sutter, as a whole, prospects never so promising; Tulare, grain crops doing as well as could be desired; Santa Cruz, dust and call for rain. These straws show the direction of the prosperous tide. Thus let it flow on until the reward is sure.

Marketing Honey.

Our advices from the honey producing regions of the State indicate the prospect of an unusually large yield from the hives. The abundant rains will extend and improve the natural resources from whence the bees draw their material. So far as amount of production is concerned the promise is of unusual fullness to the bee-keepers. But there is another branch of the industry which is not less important than producing, and that is marketing. The demand for honey is restricted, and an excessive supply works most ruinously on market prices. A few general remarks on the commercial aspect of bee-keeping will be timely and perhaps suggestive.

Honey is not classed among those foods which are termed necessaries. It is regarded rather as a luxury. Its place is in the cut glass of the special service rather than in the coarser receptacles of common table furnishing. While it is thus looked upon, it is a food which must win its way into consumption. It cannot command a place upon the board like joints of meat, or dishes of standard vegetables, or baskets of bread. It must gently win its place, until, from the point of beauty and taste which it now possesses, it can grow in favor until it becomes more widely recognized as a wholesome and profitable as well as a delicious food. It cannot be doubted that honey has, in truth, this claim upon the patronage of the eater. It has, however, been so long a luxury alone that people must be educated to its general and every day value. As bee-keepers have, by their study and improved art, succeeded in immensely increasing the honey product, it plainly is of the greatest importance to them to do everything which will promote the demand for honey as a food. They can do this by seizing every method which presents itself to bring honey in its dietary relations before the attention of the people. They can talk about it, they can write about it, they can advertise it. They can see that supplies are shown, beautifully packed and mounted, in all stores where people come to purchase food. In many cases they can bring their product directly before the people in all the smaller cities and villages of the State, and secure larger returns than by shipping the whole yield in bulk to our commission houses. We have a case of this kind in mind which occurred in a New York village. A bee-keeper increased his yield from one ton to three tons of box honey in three years, and yet sold every pound of it in the village. But he pushed the matter. He made his market. People had honey on their tables once a week instead of once a year; others once a day instead of once a month. This man worked directly upon consumers, and he succeeded in his enlarged production because his market expanded in the same proportion.

As honey must win its way there is no more important advantage which can be given it than winning shape. We have seen piles of honey in our city markets which were far from inviting. Either from careless transportation or insecure packing, the combs had loosened from their fastenings, cells had broken and the honey, soaking through the pile from box to box, had given a clinging embrace to all the dust of the air and then, escaping to the floor, had stained the boards for feet all around the pyramid. Such a sight of honey as this would not win a customer. Such an exhibition would not expand the market demand.

The fact of winning shape is often in size. The large square boxes are too large for many families. They are too large to buy for an experiment. In the small retail trade through which honey must ultimately reach the consumer, four small boxes will sell sooner than one large one. Many a customer could be won by the trial to which a small package will invite him.

But though we believe that by constant and intelligent efforts California bee-keepers can greatly increase the home market for their honey and reap the reward of a near by trade, there will still be a surplus in a favorable season which must seek distant markets. The fame of California honey has gone abroad through all the East; but this is not all. Unscrupulous men have taken advantage of this bee fame of our State to defame us; for under the name of "California honey" there has been put upon the Eastern markets during the last two years tons of glucose syrup, made from sulphuric acid and starch—honey which never saw a flower; honey which had never answered the insinuating invitation of a hoe. We have seen it and tasted it. We were at a bee-keepers' convention in New York one year ago, where jars of it were shown and contrasted with the natural honey. It is a poor fraud. The designers of it had taken all precautions, as they thought, and defied detection by plunging into each jar a piece of comb. They seemed to forget that nature puts the honey into the comb, and not the comb into the honey. Of course the Eastern bee-keepers were indignant, and were almost disposed to officially denounce California bee-keepers for their practices, until they were informed that probably this honey had never been any nearer California than it had to a flower, but sprang from some dark caldron in New York or Jersey City.

The question which we have thus outlined is one which deeply concerns the marketing of California honey at the East. The counterfeit is deficient in sweetness. It lacks the fragrance of the flower. It not only ruins our bee industry by the honey which it displaces, but, by failing to satisfy the awakening taste for honey, it clouds the growth of the demand and will make profitless all steps which are gained in extending production. This is a serious market question, which our producers must meet and overcome. The measures against adulteration which bee-keepers in some of the Eastern States presented to the legislatures for their own protection have failed, because the advocates were few and because the artificial glucose and that of honey were chemically identical, and flavor and aroma were difficult to enter in evidence. It rests, therefore, with California honey producers to decide whether they have any remedy or any safety. They should meet and consider this subject with the light of combined wisdom. We notice with pleasure that the Los Angeles society is holding regular meetings, the next being announced for April 15th, and that San Diego has effected an organization. Bee-keepers everywhere should avail themselves of this strength. No one can aid them in their deliberations. Their business is a specialty which can be advanced only by those who understand it. Therefore they can aid each other.

We commend the question of marketing to these organizations for discussion. How can they place upon their product the indelible imprint of genuineness? Can they, by a recognized trade mark and by proper public notice that none other is genuine, give Eastern consumers and themselves protection against fraud? Can they establish trade connections direct and trustworthy, which would advance their sales and increase returns. These are proper matters for present discussion.

If other methods fail, one remains. There is yet no system of fraud which puts the honey into the comb. The beautiful trade mark of the bee is guarded by a higher authority than the Commissioner of Patents. If nothing can be devised to secure the product of the extractor from successful imitation and fraud, there still remains an escape. The honey must be sold in the original package—it must be sold in the cell. Of course this would place restrictions upon the industry, and if other escape can be devised it will be well. We only record this as a final safety.

We have noted only a few points in marketing honey. If these shall lead to a fuller discussion of the important subject we shall be glad.

The Wool Clip.

The shears have mainly done their sharp singing work in the southern counties and the busy scenes are working northward. The wool has fallen thick and fast and the consignments to our city markets are growing rapidly. The Eastern buyers have reported for business, and though the trade is very slow and backward, there will doubtless soon be something interesting to report in transactions.

Reports which come to us from the shearing regions promise unusually heavy amounts of wool. The quality, owing to the abundant rains, is exceptionally good. Clean wool is the word everywhere. The sheep, too, are reported uncommonly clean and healthy. We rejoice in these facts because there is a chance that our shepherds may realize in weight of clip and health of stock some compensation for the area of low prices which prevail in all manufacturing centers.

This condition of depression in the woolen industries is the legitimate outgrowth of the hard times which have prevailed throughout the East during the last two or three years. The currency evils and the stagnation of industries have compelled purchasers to guard most carefully the wearing fabric. Hopeful prophets have bespoken a revival of business for each change of season, but necessity still holds the masses down to the bedrock of economy. No one can yet see a sure recovery, although in the tide of affairs there is always a turning, and the end will come. If the changing times through which the country is passing, and the mass of ill doing which is being exposed shall result in a more sure and temperate prosperity, the event will compensate the delay.

It must be acknowledged that present indications do not warrant much more than living figures for this year's clip of wool. We are informed from the East that our early sales of spring wool are in advance of the values which can be realized there, but possibly they will come to our prices.

There is one surety for the California wool grower. By the prevalence of low prices the Eastern production of wool will be more and more reduced, and the productive energy will go into more profitable channels. With the superior advantages which our shepherds possess they can realize profits upon prices which would ruin Eastern production. The surety of the industry is thus made, and with moderate profits during the depression our shepherds will be ready with strong flocks to reap the rewards of the revival. Thus the situation is not without promise.

ON FILE.—"Botanical Excursions," J. G. L.; "Poultry Diseases," M. E., Jr.; "Raisin Drying," B. M. G.; "Gilroy Dairymen," A. W.; "Leghorns as Layers," G. W. T. C.; "Agriculture in Chile," C. T. W.; "Yield From one Cow," S. A. F.; "Dairy Association," T. B. C.; "San Jose Nurseries," G. W. M.; "Modoc Grange," A. B. C.; "Mammoth Cave in Winter," J. W. A. W.

California Manufactures.

We were in one of our large city furniture stores the other day and as we passed from one floor to another, covered with the best specimens of the cabinet maker's art, we were assured repeatedly by the salesman: "There is not a piece of California made furniture in our whole establishment—every article is imported; we will not keep anything else."

We confess the words grated harshly on our ear. The furniture was most elegant and costly. The salesman doubtless emphasized the fact that it all came from the East, because he finds that our wealthy house furnishers prefer imported goods. Salesman are very acute men. They catch and employ in their trade what seems to be the disposition of the people. It is evidently "high-toned" to have one's house supplied with Eastern furniture, therefore every comer to the store is assured that the establishment will keep nothing made in this State.

This is not right. Our moneyed citizens, by frowning upon home manufacturers and paying much higher prices for imported articles, are crushing the industries of the State. They are throwing mud into the spring of their own prosperity. They are doing the State an injury by placing stumbling blocks in the way of its advancement. It will not do for our rich men to glory in our climate, in the richness of our mines or in the fertility of our fields, orchards and vineyards. It will not do to limit their patronage to the discoveries of nuggets and the production of mammoth vegetables and giant fruits. No; there must be patronage and encouragement bestowed upon our struggling home manufacturing industries.

This matter presses close upon the success of the agriculturist, hence we allude to it. The success of the farm, the garden and the orchard depends to a great measure upon the building up of home markets. For this reason we need a large consuming element close to the farm. This is secured by a large and active manufacturing interest. Our cities must be busy with the sing of the saw, the clatter of the shuttle and the sharp stroke of the hammer, else our country population will find their field products rotting where they grow or eaten through and through by the worm of expensive transportation to distant markets. We cannot afford to grow crops in California to feed New York and Boston cabinet makers. Nor is it right that our rich men should force this issue upon our farmers by yielding to the pressure of a shallow conventionality and refusing to adorn their houses with our home manufactures.

There is now on the way to Philadelphia, a splendid display of California native woods for exhibition at the Centennial. The blocks are polished like mirrors. The richly grained and deeply colored woods will make Eastern workmen long for the chance to turn a tool into such fine material. Their ingenuity will sport in the fancy of what gems and glories of cabinets it could carve from these splendid forest growths. Suppose these workmen speak to their employers of such a thought. Laughing in his sleeve, the employing manufacturer will turn to the large figures of his California trade and say: "These trees would rot and you would starve, for rich Californians would not purchase your masterpieces. It is the fashion there to fill grand houses with my goods and I have their money here,—aha, here in my safe."

Californians, rich and prosperous, with princely mansions, overlooking bay and strait, proud in their eminence, you are doing your State an injury in this kneeling to a fancy which calls for Eastern goods. You are crippling home industry; you are forcing skilled laborers into tens when they ought to be counted by hundreds; you are placing limits to agricultural increase, because your policy cuts off markets to which it should minister. Your mansions are palaces, but—we had almost written, whited sepulchers, because the glory of the imported splendor which is in them is purchased at the cost of life to many home industries. You love your State, it has made you princes of wealth, and yet you disregard its needs in the disposition of your patronage. The burden of blame rests with you because you "set the style;" you dictate the disposition. The whole population mimics you. From the magnificence of your full furnishing, the fever dwindles according to each man's purse, until it ends in the imported footstool of the salaried clerk.

This is not right. Instead of hearing the hateful exclamation: "We keep nothing whatever of California manufacture," let the day speed when the proud manufacturer is able to say: "My workmen are the best in the world, *everything* we have is California manufacture."

POULTRY PROFITS.—Many of our citizens suitably situated, find the raising of chickens a very profitable and easy business. Eggs always command a good price, rarely less than 25 cents a dozen and chickens from $3 to $4 a dozen. Those engaged in the business should improve their stock. It is as easy to raise the breed of chickens which grow to a large size as the scrub stock.—*Ventura Signal.*

Agriculture at the Capital.

The Legislature has folded its mantle and departed. At midnight on Tuesday night its struggles ended. A merited general criticism on its work is that it devoted altogether too mnch time to matters of no possible public valne, and left unstudied and unadjusted many matters which the welfare of the St te demands. It may be a matter for congratulation, however, that many of the unimportant matters which were discussed finally were smothered, snd failed of approval ere the close. As fair a general judgment of the session as can be formed at this early day, is that blame is to be given, not for what was done so mnch as for what was left undone, and a neglect of good may perhaps be regarded as less harmful thsn the approval of pos tive evil.

West Side Irrigation.

The messure which the farmers of the West Side have so long asked, has now become a law, and bears the Governor's signature. This was accomplished during the very last hours of the session. The Governor objected to some features of the original bill and a supplementary act was introduoed providing for the election of commissioners within one year, instead of aix months, and requiriog a survey of the district, and that the plats shall be submitted to the people at an election to he held in May, 1877. The three commis-ioners are to make athorough topographical survey of the district and definitely locate the same. They are also to determine the limits and boundaries, make an estimate of the cost of constructing the proposed canal, and they are required to give a d-tailed report to the Governor on or before March 1st, 1877, with such plats and charts as may be necessary to a full understanding of the report. After filing the report, the commissioners shail order an election in the dia trict, at which the irrigation question shall be auhmited to a vote of the people, and at which commissioners shall be elected. If the electors vote against the scheme, the result will be so proclaimed. and no further proceedinga shall be had under the act. In prosecuting their investigations and preparing their report the commissioners may employ a chief engineer and auch snrveyors, draftsmen and asaiatants as may be deemed necessary. Before making their report the commissioners must call in in consultation some member of the United Statea engineer corps, or some other competent engineer, and submit to him the maps and charts. The act takes immediate effect.

The Chinese.

In answer to the wide feeling which is now prevalent throughout the State against the evils of Chinese immigration, Senator Haymond introduced a resolution to the following effect: That the President appoint a Commission of five Senators, to sit at any time or place in the State during the present year, to make inquiries as to the number of Chinese in the State, the effect of their presence, and other matters relating thereto. The Commhisaion is to prepare a memorial to Congress, setting forth the state of affairs. They are to have power to send for persons and papers. and to administer oaths, and are to report to the next Legislature the result of their examination. Adopted.

The Debris Question.

Assemblyman Berry'a hill on the debris qnestion—to provide for the appointment of a commission to consist of three competent engineers, whose duty it should be to give the whole matter of hydraulic mining operationa a careful and thorough investigation and report to the Governor in December, 1877, in time for con-ideration by the next Legislature—after having been engrossed by the close vote of 33 to 31, was finally defeated in the Assembly by indefinite postponement. This vexed qnestion of absorbing intereat to the farmers in the valleys will now remain an open one for the next two years to come.

The oancurrent resolution calling upon the United States to furnish a Commission of Engineers to examine the matter was, we helieve, adopted.

The Regulation of Artesian Wells.

The measure is now a law which aims to prevent the waste of snbterrsnean waters in Santa Clara and Los Angeles counties, by unnecessary flowing from artesian walla. What ia meant by "waate" is thus defined in the law: "Waate is defined, for the purpose of this act, to be the causing, auffering, or permitting the waters flowing from such wells, whether naturally or artificially raised to the surfaoe, to rnn into any river, creek, or other natural water conrse or channel, or into any bay, lake or pond, or into any street, road, highway, or sewer, or npon the land of any person other than that of the owner of such well, or upon the puhlic landa of the United States, or of the State of California, unless it he used thereon for the purposes and in the manner that it may lawfully be used upon the land of the owner of auch well; *provided*, that this aection shail not be so construed aa to prevent the uae of auch watera for proper irrigation of trees, standing aloag or unon any street, road or highway." The penalty for waste is a fine of from $10 to $50 and the cost of prosecution.

The Centennial.

The appropriation for Centennial pnrposes was indefinitely postponed and is dead.

Stock Breeders' Meeting.

The meeting of the Stock Breeders' Association of California at the Produce Exchsnge on Wednesday afternoon was well attended hy the representative stock breeders of the State. Among those present we noticed Hon. Cyrus Jones, of Santa Clara; Robert Ashhurner, San Mateo; Jesse D. Carr, Monterey; Charles Clark, Santa Clara; W. L. Overhiser, San Joaquin; Moses Wick, Butte; Oleman Younger, Santa Clsra; B. Bates, Sacramento; N. B. Sturges, Alameda, and others.

The meeting was called to order by the President, Hon Cyrus Jones, who hriefly addressed the meeting as follows:

Gent'emen. Breeders of Short Horn and other Fine Breeds of Cattle in the State of California: We have met for the purpoee of electing officers of thie associati n for the ensuing year, and for adopting a constitution and by-laws for the regulation of the society, in accordance with a resolution at our last annual meeting, and for any and all other business that may properly come before ue, and especially in reference to our fortocoming public sale at Sacramento, on the 20th of this month, which I have every reason to believe promises to be a grand success. All the members who proposed to contribute to the sale at our semi-annual meeting responded by promptly forwarding the pedigrees to the committee that wae appointed at the proper time, and a catalogue was published containing the pedigrees, etc., of which over 200 copies have been distributed throughout this State, Nevada and Oregon. After the catalogues were printed, Mr Parks, the administrator of tue estate of G. N. Sweezy, personally make application to me to put in the sale the entire herd of Mr. Sweezy. After considering the matter, and having no opportunity to advise with other members of the association, I told him that he could put them in the sale. In order that the herd would be advertised, he had a slip printed, which I pasted in each catalogue as I sent it out. The pedigree of each animal is printed in the catalogue, just as I received it, without comments. I also sent a catalogue to nearly all the papers published in the State, and quite a number of them published an article in reference to the sale, stating the advantage there is in purchasing fine bred cattle at public sales, etc. All of which is most respectfully submitted.

Robert Ashburner, Secretary, read the minutes of the last annual and semi-annual meetings, which were approved.

Constitution and By-Laws.

The committee on drawing articles of agreement which should give the society a more perfect organization made a report which was adopted. The constitution thus approved declares its object be "to promote and perfect a more substantial understanding among the breedera of cattle and the farmers at large in the State of California in order to encourage the further improvement, breeding and dissemination of our cattle." The membership of the association shall he composed of breeders of thoroughbred cattle, and those interested in their breeding and importing and disseminating throughout the State. The membership fee is one dollar.

On motion of Mr. Overhiser, President Jones, Secretary Ashburner and Col. Younger were appointed a committee to draft by-laws for the government of the society.

Election of Officers.

The election of officers for the ensning year was then effected with the following result: President, Cyrus Jones, of Santa Clara; Vice President, Moses Wick, Butte; Secretary and Treasurer, Robert Ashhurner, San Mateo; Executive Committee, Jesse D Carr, of Monterey; Col. Younger, Santa Clara; W. L. Overhiser, San Joaquin.

Mr. Jones thanked the meeting for the honor of election, and promised to do everything in his power to further the interests of the thoroughbred cattle breeders of the State.

Pictures of Stock.

During an interim of business Andrew P. Hill, an artist who has made a study of delineating finely bred animals, was invited to exhibit some of his drawings. They were much admired. Mr. Hill desires to employ a part of his time in this valuable department of agricultural art, and we hope he will receive the encouragement of breeders who desire to bring their fine stock before the attention of the farmers of the State. It is the intention of the RURAL PRESS to present illustrations from Mr. Hill's drawings and thus advance the improvement of stock, by laying the points of the best animals before our readers.

Pedigrees.

Robert Ashburner advanced the point that some of the pedigrees in the catalogue of sale are defective, and that he would not allow his name to be used in connection with the sale unless public explanation is made at the sale of any doubtful points in pedigrees.

Col. Younger stated that the pedigrees in the catalogue were vouched for only by the individual offering the animal, and the owner would be called upon to answer any objection which might arise. He would assume all responsibility for his own stock, and would expect others to do the same.

The State Fair.

The subject of exhibition at the State fair was taken up. Mr. Ashburner stated that he would not show cattle at a place where there is so much horse racing and gambling, and where the judges never placed a hand on the stock.

Mr. Overhiser asked: Is the horse interest a paramount interest in this State? Can cattle breeders allow the managers of the society to pay out $57,000 for the horse interest and but $12,000 for all other interests? The cattle breeders, the sheep breeders, the poultry men, can sustain an exhibition. They are the agricultural interests. Again, can we as citizens permit our children to go to a place where there is a gambling stand on every square rod—things which we teach them at home are wrong? If cattle breeders will combine and stand by each other, they can put down the pool selling and gambling which now prevail. I have resolved never to show another hoof on the State fair grounds while such things prevail.

Mr. Wick announced that he would go in with the rest and make up a thoroughly agricultural show; let them have a horse show if they wish, with the gambling, etc.

Mr. Overhiser was sure that if 20 stock breeders would hold out their stock, the thoroughbred interest would be removed; the hog breeders, the sheep breeders and the poultry men would follow. All these classes are tired of having their displays neglected, while all rush away under the temporary excitement of the race.

Col. Younger stated that he had voted, as a member of the board, to admit pool sellers, because, if prohibited, they would sell outside. He had hoped that the late legislature would pass a law against pool selling. He was, for many reasons, opposed to all horse racing, pool selling, etc., at agricultural fairs. They are, the most insidious evils of the times. The stock men can hold a fair of their own if they are determined to do so. The agricultural interest at the State fair is only used to take

DORYANTHE ELEVE.

off the curse of the horse race, and inveigle people into the snares of the gamblers, under the pretense that they are going to an honorable exhibition. If we cannot support an organization where most of the money does not go to the evils of the race and the gamblers we had better stay at home.

Mr. Overhiser moved that a committee be appointed to embody the views of the society concerning their course with regard to the State fair in suitable preamble and resolutions. The following committee was appointed: Messrs. Jones, Carr and Ashburner.

The semi-annual meeting of the society will be held in San Jose on Thursday evening during fair week, in October. On motion the thanks of the society were tendered to the reporter of the RURAL PRESS.

On motion the society adjourned, to meet in Sacramento on the evening of April 19th, at which time the committee will report. Mr. Bates was authorized to procure a place of meeting.

ENGINEERING ON THE FARM.—George W. Wood, of Sugar Loaf, Ind., came very near losing a valuable mare a few days ago. The animal walked out of a barn door directly into a well 20 feet deep. Considerable engineering was brought into play to rescue it. Mr. Wood filled the bottom of the well with hay, which he pounded down so as to make a solid footing for the mare, and continued increasing its hight until he had got her within two and a half feet of the top, at which juncture she sprang out uninjured, except the partial rubbing of her tail, and a slight cut in her breast, caused by a stone. The falling of animals into wells is not an unusual occurrence, and the above method of rescuing them is worthy of note. The whole process occupied two hours.

QUERIES AND REPLIES.

Fruits and Grasses.

EDITORS PRESS:—I have been much interested in the articles on fruit culture that you have recently given us, and have derived much valuable information from them, but there is one branch of the subject of which I have seen no mention, viz.: The culture of dwarf trees. Can you give me, (1.) Any information in regard to the culture, varieties, etc., of dwarf pears? I would like to know, too, the age at which they may be expected to commence bearing; also, what other classes of fruits do well as dwarfs?

Can you, (2.) Tell me the usual distance for planting standard orange trees?

I have a fine grove of live oaks which I would like to spare if possible, to utilize it as a pasture or otherwise, but the shade is so dense that clover or alfileria will not grow. I have seen some mention of Bermuda grass in your columns, (3.) Do you think it would be likely to succeed in such a situation? Does it make a good pasture?

The grove is at present occupied with the wild gooseberries, which seem to flourish extremely well. (4.) Is it possible to grow the cultivated kinds in shade?—CHARLES R. HALE, Santa Barbara.

(1.) We commend the subject of pear culture to our horticultural correspondents. Will they give us articles covering the ground indicated by our querist?

(2.) The distance is 20 to 25 feet apart; usually 20 feet.

(3.) Bermuda grass has been tried with success, we believe, as a lawn grass, but we are not aware of attempts at field culture in this State which would warrant our querist in putting it in. As the subject is up we should like to have our readers' experience with Bermuda grass. The grass which would best serve our querist in the situation he names is orchard grass. It thrives under such conditions.

(4.) Yes. One trouble with gooseberries in this country is a deficiency of shade and moisture. We have no doubt the improved varieties would thrive.

The Wool Growers' Case.

For some time past suits have been pending in the Nineteenth District Court, brought by C. S. Thomas and others against J. C. Moody to recover various sums alleged to be due on shipments of wool. Judge Wheeler to-day said that he was sorry to be obliged to render judgment for the defendant. The case had caused him considerable trouble, and he had examined it with the greatest care in order to arrive at a legally just conclusion. In 1871, Moody succeeded Farrish & Co., in the wool commission business in this city. Prior to this Strowbridge Bros., of Sacramento, forwarded wool to Farrish & Co., for sale on commission, and Moody subseqnently acted in the same capacity. In the latter part of 1872, Moody, on looking over his books, found that Strowbridge Bros. were largely indebted to him, and an interview was had with the senior member of the firm. It was then agreed that Moody should honor the drafts of Strowbridge Bros. to the extent of the value of all future shipments of wool they should make to him and that the old account should remain as it was. In 1873 the Sacramento house failed, just after having received various quantities of wool from different parties and sent it to Moody, who, it seems, disposed of it and kept the money to pay off the old indebtedness. Finding that the wool had been sent to Moody, the growers passed by Strawbridge Bros,, and brought suit against the former to recover. Judge Wheeler said he would like, on moral grounds, to decide in favor of the plaintiffs, but he was legally prevented from doing so. The evidence showed that Moody had not paid over, by $20,000, the value of the wool forwarded to him by Strowbridge Bros. but the parties bringing the suits could not maintain any claim against him because they only did business with the house of Strowbridge Bros. He was not satisfied with this decision and would be willing at any time to entertain a motion for a new trial.

A Curious Plant.

We give on this page an illustration representing a very curious and interesting plant. It is the *Doryanthe Eleve*, according to the French nomenclature. As is plain from the picture, it is an aquatic plant, rearing its head above the water and stretching a fleshy stem down through the water to the root-hold below. It is a beautiful plant, and flourishes upon the shores of Botany bay, thus giving at least one gleam of light to a locality known, in tradition at least, as the darkest spot within human knowledge. A French traveler passing along the shore of the bay speaks of its flowers in these words: "In our progress we picked many beautiful flowers. Our attention was attracted by the *Doryanthe*, of which the flower is white and has a most beautiful effect."

SAVE ORANGE SEED.—Mr. J. Hamer, when he first came to the State, a few months since, concluded to save all the orange seeds from his table and plant them in boxes, he did so and now has a reward for his care—several hundred thrifty young orange trees, large enough to transplant into the orchard. We hope to help him dispose of some of the oranges from those trees.—*Ventura Signal.*

Useful Information.

Things Which it is Well to Know.

Irish stew is a dish never seen in Ireland.

Cat-gut is not the gut of cats, but of sheep.

Kid gloves are not kid, but are made of lamb skin or sheep skin.

Arabic figures were not invented by the Arabs, but by the Indians.

Tube-rose is no rose, but the tuberous palianth *(Palianthes tuberosa)*.

Salad oil is not oil for salads, but oil for cleaning callets or salades—*i. e.*, helmets.

Slave means noble, illustrious; but the term is now applied to the most ignoble and debased.

Black lead does not contain a single particle of lead, but is composed of carbon and iron.

Turkish baths are not of Turkish origin; nor are they baths at all. They are hot air rooms.

Salt is not salt at all, and has long been wholly excluded from the class of bodies denominated salts.

Cleopatra's Needle was not erected by Cleopatra nor in honor of that queen, but by Rameses the Great.

Prussian blue does not come from Prussia, but is the precipitate of the salt of protoxide of iron with prussiate of potassa.

Brazilian grass does not come from Brazil, or even grow in Brazil; nor is it grass at all. It consists of strips of palm leaf, and is chiefly imported from Cuba.

Whale-bone is no bone at all; nor does it possess any properties of bone. It is a substance attached to the lower jaw of the whale, and seems to strain the water, which the creature takes up in large mouthfuls.

Sealing wax is not wax at all; nor does it contain a single particle of wax. It is made of shellac, venice turpentine, and cinnabar. Cinnabar gives it the deep red color, and turpentine renders the shellac soft and less brittle.

Burgundy pitch is not pitch, nor is it manufactured or exported from Burgundy. The best is a resinous substance, prepared from common frankincense, and brought from Hamburg; but by far the largest quantity is a mixture of rosin and palm oil.

Buttons from Pebbles.—Immense quantities of buttons, manufactured from pebbles, are produced in Paris, and sent to almost every part of the globe. These pebbles, which are of crystallized feldspar, containing as little clay and lime, or lime salts as possible, are reduced to powder by heating them to cherry red and then plunging them into cold water. The powder is separated from its impurities by being passed through a wire gauze sieve, and is next well stirred in water. The residuum is treated with a quantity of hydrochloric acid, varying from three to 10 per cent., to free it from the oxide of iron, which would give the buttons a reddish hue in the baking process. One hundred pounds of powder are mixed with two of chloride of sodium and four of flour paste, dissolved in five quarts of water; the whole is then passed through the sieve, and dried to a proper consistency for molding.

Brightening Iron.—When taken from the forge or rolls, the articles are placed in dilute sulphuric acid, (1 to 20,) then washed clean with water and dried with sawdust; they are then dipped for a second or so in nitrous acid, washed carefully, dried in sawdust, and rubbed clean. It is said that iron goods thus treated acquire a bright surface, having a white glance, without undergoing any of the usual polishing operations. It is stated that the action of the sulphuric acid is increased by the addition of a little carbolic acid, but it is difficult to see what effect this can have.

To Take the Rust off a Plowshare.—Take a quart of water and pour slowly into half a pint of sulphuric acid. The mixture will become warm from chemical action; put it on the iron and let it remain there until it evaporates. Then wash it again. The object of this is to give the acid time to dissolve the rust. Now wash with water, and you will see where the worst spots are. Apply some more acid, and rub on those spots with a brick. The acid and the scouring will remove most of the rust. Then wash the mold-board thoroughly with water to remove the acid, and rub it dry. Brush it over with petroleum or other oil, and let it be till spring.

Glass Cement.—A cement to stop cracks in glass vessels, to resist moisture and heat, is made by dissolving casein in a cold saturated solution of borax. With this solution paste strips of hog's or bullock's bladder, softened in water, on the cracks in the glass, and dry at a gentle heat. If the vessel is to be heated, coat the bladder on the outside, just before it has become quite dry, with a paste of a rather concentrated solution of soda and quicklime or plaster of paris.

Black Pepper is made by grinding the dried berry of a climbing vine native to the East Indies. White pepper is obtained from the same berries freed from their husk and rind. Red or cayenne pepper is obtained by grinding the scarlet pod or seed vessel of a tropical plant that is now cultivated in all parts of the world.

A New Nickel Plating Solution, said to yield beautiful results, is prepared by mixing the liquid obtained by evaporating a solution of one-half ounce nickel in aqua regia to a pasty mass and dissolving it in one pound aqua ammonia, with that obtained by treating the same quantity of nickel with a solution of two ounces cyanide of potassium in one pound of water. More cyanide renders the deposit whiter, and more ammonia renders it grayer.

Engineers' Cement.—Mix ground white lead with as much finely powdered red lead as will make it the consistence of soft putty. Another is to mix equal parts of white lead and red lead, and as much linseed oil as is required to give it the proper consistence; or boiled linseed oil and red lead mixed into a putty. These cements are used for making metallic points round.

"The Public Lands of California."

The demand for this new work is steadily increasing, and the more widely that its merits are becoming known, its usefulness to everyone is becoming more fully demonstrated. The map of California and Nevada alone is worth more than fifty cents, the price asked for the work, and the fact that a glance at its pages shows the leading products, population, etc., of each county in the State, besides a list of the surveys of United States Land, subject to the homestead and pre-emption laws of Congress; a correct copy of the laws of Congress in regard to locating and holding this land, etc., renders it of inestimable value. Orders sent to Dewey & Co., enclosing fifty cents, will meet with prompt attention, as it will be forwarded immediately post paid.

The New Willcox & Gibbs Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

American Manures, or Farmers' and Planters' Guide.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

The Threshers' Guide, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the Rural Press office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. Moulton, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

Be More Particular.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.
We also want the address of Wm. Buck.

Unknown.—We have lately received cash at this office without due explanation, as follows: From Carson, Nev., $4, by express.
The senders will please give full address, date of sending, etc.

A housekeeper who has had ample experience and has just closed an engagement of over 18 months in care of a house, wishes a situation in the country. Has lived on a ranch and is confident of giving good satisfaction. Good reference given. Address M. G. N., 173 Minna street, San Francisco.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

Bound Volumes of the Pacific Rural Press, from Volume One, are for sale at this office: price $5 per volume for single volumes; unbound $3. There are two volumes per year.

Several First Class Sewing Machines can be had at favorable rates to the purchasers, if ordered soon, from the Grangers' Business Association, N. E. Cor. Davis and California streets, S. F.

Choice Volumes.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Sewing Machines.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

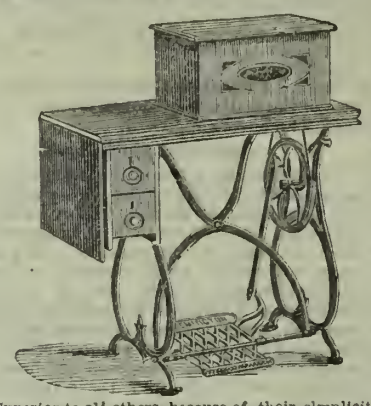
That excellent and widely circulated journal, the Pacific Rural Press.—[Ventura Signal.

McCormick's Mowers and Reapers.

Everybody knows that McCormick's Reapers and Mowers have a world-wide reputation. McCormick's inventions on these machines have been the most important ever patented in this or any other country. Selling thousands of them in the older States, in the face of all kinds of opposition, the inventors and makers (who have an immense factory,) have not hitherto pushed the machines on this Western shore, as they now intend to. Farmers can depend upon every machine and all its parts when sent out from the factory of this old established firm.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

Ladies' Department.—Ladies will be admitted for instruction in all the Departments of the College.

Telegraphic Department.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

---

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

DO YOU want employment at home, in a new, reliable business, paying large profits Address Excelsior Mf'g Co., 151 Mich. Ave., Chicago, Ill

---

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't		I. G. GARDNER, V. Pres't	
G. P. KELLOGG, Treasurer		A. W. THOMPSON	A'ty
I. C. STEELE	San Mateo	CHAS. LAIRD	Salinas
A. WOLF	Stockton	A. D. LOGAN	Colusa
W. H. BAXTER	S. F	G. W. COLBY	Butte Co
J. C. MERRYFIELD,	Dixon	C. J. CRESSEY	Oakland
A. B. NALLY	Santa Rosa	E. W. STEELE, S. L. Obispo	

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$3,026,378.00
TOTAL PREMIUMS	63,306 49
LOSSES PAID	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

Successor to A. Pfister & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - - $100,000.

WM. ERKSON ..... PRESIDENT
H. E. HILLS ..... MANAGER

Directors:—Wm Erkson, L. F. Chipman, Horace Little, J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

LIBERAL ADVANCES ON CONSIGNMENTS.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

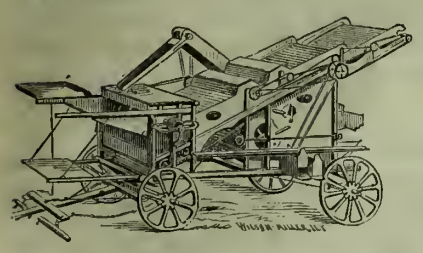
is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind-Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

Treadwell's Patent

END-SHAKE THRESHER.

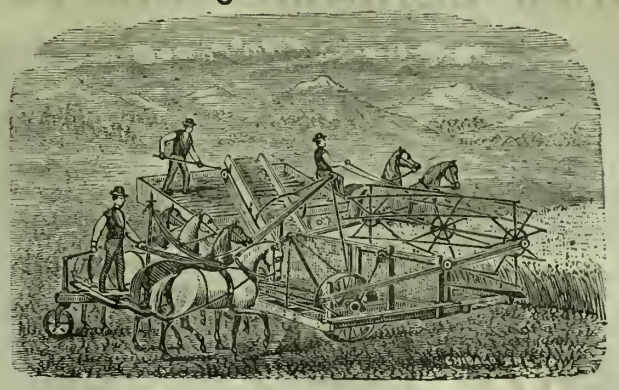


MADE BY RUSSELL.

We have 24, 30, 33, 36, and 40 inch machines, made this year, all with Laufenburg's patents, and the celebrated End-Shake Shoes—the greatest improvement yet made in Separators. Send for circulars and prices.

Treadwell's Single-Gear California Header.

High Iron Wheels with Adjustable Spokes.

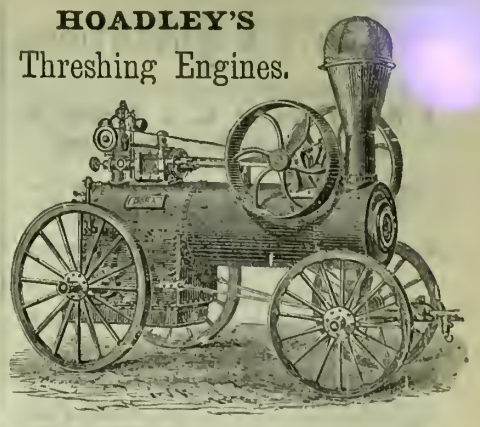


Patent Adjustable Reel and Frame Brace.

No other Header has these Improvements.

☞Any farmer buying $300 of worth machines or implements of us, will be paid his fare to San Francisco and back, if not over 200 miles. He can thus come and see for himself, without any expense. Send for our prices before ordering any machines.

HOADLEY'S Threshing Engines.



REDUCED PRICES.

9 Horse Power, new style, complete		$1,200
12 " " " " "		1,450
15 " " " " "		1,600
15 " "	Patent Straw Burning Engine	1,700

TREADWELL & CO., - - - Old Stand, Market, head of Front Street, - - - **San Francisco.**

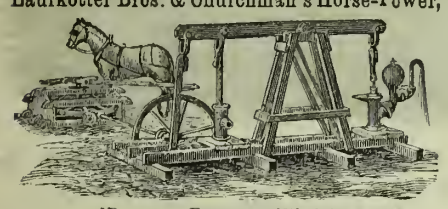
Agricultural Articles.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

Straw-Burning Attachment.

KING'S PATENT.

THE ONLY SUCCESSFUL BURNER YET INTRODUCED.

Having secured the exclusive right to manufacture and attach to engines, J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of threshers to notice why it is superior to all other Straw-Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

The Attachment

Can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced County.

All orders addressed to J. R. KING, Patentee, in care of the Globe Iron Works, or H. C. SHAW PLOW Co., Stockton, will receive prompt attention.

☞Send for Circulars.

JOHN CAINE,
Proprietor Globe Iron Works.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF

GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

GREAT SALE

—OF—

Thorough-bred Short-horn Cattle and Berkshire Hogs,

To be Sold at Public Auction,

ON THURSDAY, APRIL 20th, 1876,

At the Fair Grounds, Sacramento,

Under the Auspices of the Short-horn Breeders' Association of California.

Consisting of Young Bulls, Cows, Heifers, and the entire herd belonging to the estate of G. N. Sweezy, of Marysville. We would say to the public, and especially to those wanting young bulls to improve their herds, that no better opportunity will be offered than at this sale for parties wishing to purchase, as a large number of the principal breeders of the State have each contributed a few head of choice animals to be sold. Catalogues furnished on application to Cyrus Jones, at Sacramento until April 3d, after that time at San Jose, Cal.

CYRUS JONES, Pres't.
ROBT. ASHBURNER, Secretary.

CANDLES.

MITCHELL'S

New York Candles

Full Weight and 14 ounce.

Will be found on comparison to be

Unequalled in Quality.

14 GMG OZ.

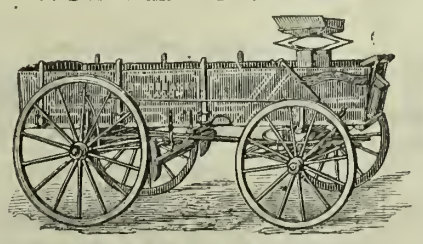
STEARIC ACID CANDLES

GEO. M. GRANT & CO.
PHILADELPHIA.

FOR SALE BY ALL THE LEADING JOBBERS.

Geo. M. Grant & Co., Agents, San Francisco.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. E. AMES, Gen. Agent,
Send for Price-List. Sacramento, Cal.

TRADE MARK.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Novada.

ÆTNA MOWER AND REAPER

Price of Mower, $100.

The Latest and Best. Weight, 650 lbs; cuts four feet, four and one-half inches. It has ALL THE IMPROVEMENTS of every first-class machine, besides a DOUBLE SPEED (which no other has), giving a fast or slow speed to the knife or sickle—an important advantage. Send for Illustrated Pamphlet, and don't fail to see the "ÆTNA," before buying. For sale only by

TREADWELL & CO., San Francisco.

☞We guarantee to keep "extras" on hand from year to year for this machine.

H. K. CUMMINGS. 1858. H. H. RALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

4v23-1y

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

9 12 15 20 HORSE POWER.

ALL SIZES

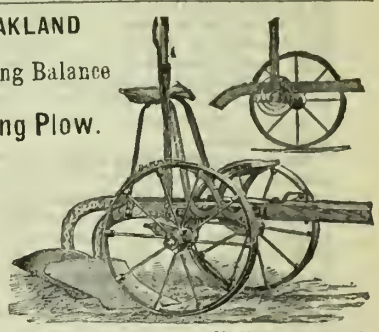
Hoadley's PORTABLE Engines

Sole Agents TREADWELL & CO

From year to year they have been improved under the personal supervision of Mr. Hoadley. The last great improvement is the REGULATING CUT-OFF, with balanced valve, thus giving it all the economy and increased power of the most thorough-built Corliss Stationary Engine. By this addition, a 15-horse power Hoadley Portable can be run at over 40-horse power, if required. ☞As a Threshing Engine, the Hoadley is the leading engine of the country. It has no equal. For prices, etc., send to

TREADWELL & CO., S. F.

OAKLAND Spring Balance Gang Plow.



Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

LOOK!

ALBERT E. BURBANK, Importor and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Egg and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 47 Cal. Market S.F

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch. Dated Washington, D. C., April 4th, 1876.

FOR WEEK ENDING MARCH 21ST, 1876.*

SEWING CASES.—Robert Philip and Louise A. Philip, Sacramento, Cal.

REISSUE.

SEWING MACHINE.—Eugene Moreau, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Sale of Farming Lands.

San Diego.

The owners of a tract of about 8,000 acres of land on the shore of the bay of San Diego, are about to inclose a part of it with rabbit proof fence, subdivided into five and ten acre lots, approached by wide streets, and sell on the installment plan, price to be low and time easy; water for purposes of irrigation will be furnished and delivered into reservoirs on each tract of five acres, at the rate of one dollar for filling a 10,000 gallon reservoir.

HOW CAN WE STOP HIS PAPER?—Dewey & Co. have received the following mystical order upon the back of a postal card:

"Pleas stop my paper immedistely."

Only this and nothing more. As the post-office authorities do not waste postmarks on postal cards we do not even know what quarter of the country this concise individual hails from The matter is still further complicated by the fact that Dewey & Co. publish two newspapers, and cannot imagine which one it would be advisable to suspend. We regret exceedingly that we cannot oblige this gentleman, except by closing our establishment entirely, and we cannot do this even in answer to his "pleas." We see no help for it—he must have another paper.

Send us not only your name, but your P. O. address, so that we can tell in which portion of our lists of 7,000 to 10,000 names yours occurs. We mention this case prominently because we receive repeatedly copies of our paper returned, with the names of subscribers, unaccompanied by their P. O. address, which is necessary to find their names on our list.

CHUFAS AND JAPAN PEAS.

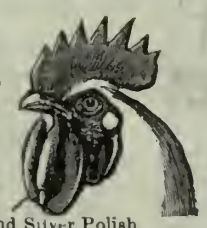
The introduction of these crops throughout the South will enable us to keep our stock and fill our smokehouses as cheaply as it can be done at the West. The Chufa is planted in a ridge like potatoes, yields on common land 200 bushels per acre of the richest feed, unequalled for fattening hogs, poultry—and children. One acre will fatten more hogs than ten acres of the best corn, besides furnishing grazing all summer. For the truth of these claims we refer to U. S. Commissioner of Agriculture, Washington, or to any agricultural paper in the South. Price, by mail, postage paid, 20c a package, 40c a pint, 75c a quart; by express $1 a peck, $15 a bushel.

The Japan Pea fully established its merits several years ago, and is now in universal demand. It grows upright like a cotton stalk, is cultivated like corn, and yields from 150 to 300 bushels per acre on ordinary land. Stock of all kinds relish it and thrive highly on it without other feed. Also excellent for table use (after boiling for about a week). Price, by mail, postage paid, 15c a package, 30c a pint, 50c a quart; by express, $3 per pack, $10 per bushel. These seeds are so scarce and costly that we cannot make any discount to wholesale dealers or Granges.

When Southern planters grow their own stock-feed and fatten their own hogs we shall hear no more of hard times and "middlemen," for this will put an end to both. If you fear to invest largely it will cost but a trifle to try these seeds, and unless your experience differs from all others you will be forever thankful for the trial. Address,

A. F. WHITE & CO.,
Nashville, Tenn.

M. FALLON,



Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns.
Silver Grey Dorkings,
Houdans, Silkies, Black Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

FOR SALE.

The Pure Bred Short horn Cow, "BERTHA THE 27TH;" warranted to milk Eight gallons a day, and make Seventeen and One-half pounds of butter per week. Price, $1,000. Also her Heifer Calf, one month old. Price, $250.

JOHN B. REDMAN,
Marin County, Cal.

GORHAM SEEDERS AND CULTIVATORS COMBINED

In Sizes from 6 to 14 Feet Long. The Only Reliable Combined Broadcast Seeder in Use. Will Seed and Cultivate from 12 to 35 Acres a Day.

MOWERS.

Excelsior, "Junior and Medium." Russell's "Peerless" Mowers, Ætna Mowers, Wood's Mowers, Meadow Lark Mowers. The leading Machines of the day at prices below all others.

Reapers.

Excelsior "Dropper," Wood's "Sweepstakes," Russell's and Ætna Side Rakes.

HAINS' HEADERS.

The perfection of these Headers can only be appreciated when seen. They combine all that is valuable in other makes, besides many improvements to be found on no other. Don't fail to see them; you will save money and get the best. Also TREADWELL'S SINGLE GEAR PATENT REEL HEADER.

COATES' LOCK LEVER RAKE,

Awarded the First Premium at State Fair last fall as the best steel tooth hay rake.

Sulky Revolving Rakes,

Just the Rake for all kinds of Grass.

HEADER WAGONS,

Both Iron Axles and Thimble Skeins.

J. I. CASE & CO.'S 18-Horse Engines.

These celebrated and powerful Engines, so complete in all their parts, fresh and new from the factory, will be sold very cheap. We are prepared to give these Engines any kind of test to show their power over other make with less fuel.

40-INCH SEPARATORS.

We want all interested parties to look at our Separators, believing they will see the most perfect Thresher ever imported, at less figures than ever sold here.

Halladay's Windmill.

Over 130 different railroads are using them. They are the standard mill the world over. We sold more windmills last season than has ever been sold by one house on this coast in the same length of time. We have found by dear experience that Mills that have no rudder are unsteady and flop around, literally wearing themselves out, and at the same time do but little work: besides, are liable to blow down; we can furnish any size from eight feet to 60 feet in diameter, from one to 40-horse power, and guarantee them for five years.

It will pay all who are looking with a view of making selections among the different lines of Implements to see our stock, and get the lowest ruling prices. Our stock embraces everything in the Agricultural Implement line. Send for Price List and Catalogue.

KELLER & CO.,
43, 45, 47 J Street, Sacramento, Cal.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range,

53 and 55 J Street, Sacramento.

NOTICE TO THRESHERS.

WANTED—TO EXCHANGE,

A Rice's Straw Burning Engine for a Wood Burner.

For further particulars address J. W. RILEY, care of Dewey & Co., 224 Sausome St., San Francisco.

Lands and Homes for Sale.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord	J. REGENSBURGER.....S. F.
J. VOLLMAR .....S. F.	A. W. THOMPSON.Petaluma
J. D. BLANCHAR.....Napa	F. A. KIMBALL....San Diego
C. MITCHELL GRANT.....	I. G. GARDNER.....S. F.

G. P. KELLOGG.....Salinas.

500,000 ACRES

Of the choicest farming land in CALIFORNIA, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 40 California Street, S. F

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur *at any time*, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4jl76.

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

Napa Valley, near Napa City,

240 Acres of Land For Sale.

The whole or one undivided half interest, at thirty-two dollars per acre. Fenced in five fields. Living water in every field. Orchard and Vineyard in bearing of choice varieties. Buildings good. Terms easy. A great bargain.

STERLING & THOMPSON,
Napa City, Cal.

FOR SALE CHEAP.

A place of one hundred and seventy to two hundred acres, adjoining Yountville, Napa valley, near R. R. depot. There is on it a bearing vineyard of foreign Grapes; also, small orchard of Cherries, Peaches and Apples. The land is bottom and hill. Over two thousand cords of wood can be cut. Will be sold in part or whole, to suit. Apply to

G. C. PEARSON,
Vallejo, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 5th, 1876.

We have had another week of good weather. Trade has pursued an even course in most lines.

The Wheat market has passed under another cloud. A falling market has been reported from Liverpool, and the result has been a chill on our local trade. At the close of the week transactions are almost at a stand-still and buyers are insisting upon lower figures. Holders are generally firm and hesitate to make concessions. Our sales below show full prices gained during the early days of the week, but the disposition is to-day quite unfavorable.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	Cal. Average	Club.
Thursday	10s 2d@10s 6d	10s 5d@11s —
Friday	10s —@10s 4d	10s 3d@10s 10d
Saturday	10s —@10s 4d	10s 3d@10s 10d
Monday	10s —@10s 4d	10s 3d@10s 10d
Tuesday	9s 10d@10s 2d	10s 2d@10s 9d
Wednesday	9s 10d@10s 2d	10s 2d@10s 9d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 2d@12s 5d	12s 8d@13s —
1875	9s 3d@ 9s 7d	9s 5d@ 9s 10d
1876	9s 10d@10s 2d	10s 2d@10s 9d

The Foreign Market.

The conditions of the foreign trade is shown in the following dispatches:

LONDON, March 31st.—The Corn trade relapsed into the languor which characterized it during the first two months of the year. The recent advance in the value of Wheat, Flour and Barley was scarcely supported on the leading exchange yesterday. At Manchester there was a decline of a shilling per quarter on foreign Wheat, but English maintained previous prices. Last week's grain arrivals from abroad showed a slight increase on the preceding week. Imports of Wheat were 181,072 quarters; Maize, 176,171 quarters; and Flour, 33,513 sacks. Home supplies are rather small.

At Mark Lane to-day business was heavy and the attendance thin. Wheat offered at Monday's prices was quite neglected. Flour cannot be sold except at reductions from the recent advance. Barley steady. Maize rather cheaper, much of the supply being inferior or damaged. The weather now allows of agricultural work. The crops around Odessa are reported to be growing favorably.

The *Mark Lane Express* review is as follows:

LONDON, April 3d.—Agricultural operations are being prosecuted with vigor. Surmises regarding the probable injury to the winter Wheat, caused by the inclemency of the weather, are unfounded. The future crop, although retarded, appears to offer no reasonable cause for alarm as to ultimate prospects. In some districts where the bad weather was unusually severe and protracted the intention of sowing Wheat has been abandoned, and fields are devoted to Barley or Beans. It is early to hazard an opinion about the future crops, as the plants are only beginning to appear, and the country is generally said to be as bare as it usually is at the end of February. Still, supposing the frosts later do not injure the plants, the recent cold may even have been beneficial by destroying vermin. Heavy rainfalls also materially help the fertilization of fields. The trade last week was strictly of a consumptive character. Speculators held aloof. The country markets, however, are not influenced. The recent advance was fully sustained.

Freights and Charters.

There is still a considerable amount of disengaged tonnage in this port. During the recent advance in Wheat there were several charters made. Rates continue unchanged at £2 2s 6d for wooden, and £2 5s for iron vessels. The following engagements are reported: Ship *Defiant*, 1 898 tons, wheat to Liverpool, £2 2s 6d; British ship *River Lune*, 1,132 tons, wheat from Portland to Liverpool, £3 5s; bark *Wm. H. Thorndike*, 676 tons, now at Portland, wheat from Portland to Liverpool, £3. A summary of the tonnage in port is as follows:

	Vessels.	Tons.
Disengaged	18	22,200
Engaged	24	17,900
Totals	42	40,100

There are from 80 to 90 vessels now en route to this port, of which 10 are due.

The rates of tonnage for the coming crop are now assuming definite form. The ship *Ocean King*, 2,516 tons, now loading at Liverpool for this port, has been chartered for £3 to return with Wheat. The ship *Sterling*, which sailed from New York for San Francisco during the week, has been chartered from here to Liverpool direct, with the new crop Wheat in the autumn loading at £3. It is understood here that a number of ships have been taken up in the English market at the same figures. A New York shipping authority telegraphs as follows: "If the carrying trade remains in its present depressed condition, there will be little difficulty in obtaining all the tonnage that may be required to carry away the surplus of the incoming crops from San Francisco and Oregon at £3.

Eastern Stocks of Grain.

The annual circular of Messrs. Wm. Young & Co., of Chicago and Milwaukee, based upon the authority of the answers returned to their interrogatories, sent out to all the prominent points in the Northwest, gives the following report of the stock of Wheat in the several States: Iowa, at 60 points, 668,860 bushels; Minnesota, at 43 points, 2,847,050 bushels; Wisconsin, at 28 points, 476,800 bushels; Nebraska, at 12 points, 102,600 bushels; Dakota, at five points, 53,000 bushels. In addition to these amounts the farmers are still liberal holders of Wheat, and have in hand probably nearly as much as above. This circular also gives the comparative stocks of Wheat in Chicago and Milwaukee, March 18th. At Chicago the stock is reported at 3,198,007 bushels, against 3,995,010 bushels same time last year, showing a decrease of 797,003 bushels; Milwaukee reports stock same time of 4,020,285 bushels, as compared with 2,055,554 bushels last year, which gives an increase at latter port of 1,964,731 bushels.

The San Francisco Produce Exchange is taking an account of the stock of Grain in this State on April 1st, and will be ready to report for publication next week.

Our Export Trade.

As compared with a corresponding period in 1875, our export trade in Domestic Produce for the first quarter of the present year has a satisfactory showing. There is a falling off this year in the exports of Wheat, Flour, Brandy, Leather, Salmon, Potatoes and the various Ores, but a marked increase in nearly all other leading productions. Continued wet weather has greatly interfered with the free movement of produce this year, and to this, together with the unsatisfactory state of several of the foreign markets, the decline in the articles specified above may be attributed. The *Post* prepares the following tabular statement giving the value of the leading articles of Domestic Produce exported by sea during the first quarter of 1876 as compared with a corresponding period in 1875:

	1875. Value.	1876. Value.
Barley	$ 3,133	$ 49 838
Beans	4,024	13,254
Bran, etc	1,282	3,498
Brandy	13,504	14,171
Bread	18,334	10,874
Brooms	5,684	6,859
Lumber	37,686	80,804
Shingles	2,313	5,422
Flour	761,549	654,257
Hay	2,683	5,420
Hides	42,247	37,150
Leather	48,042	30,933
Mustard Seed	105	1,407
Oats	1,951	2,573
Ores	120,957	28,195
Quicksilver	350,121	405,234
Salmon	243,035	37,562
Potatoes	10,014	7,546
Wheat	4,088,334	2,603,818
Wine	47,431	89,757
Wool	43,303	74,008

The Silver Question.

The silver trouble continues in aggravated form. It has been proposed, and the suggestion has received considerable attention, that the business community come to an agreement not to receive trade dollars for more than 90 cents apiece. The movement seems actually to have been commenced among the retail grocers and butchers. We have heard of several instances today where these tradesmen have refused to receive them for more than 90 cents. If this movement become general it will stop the coinage of them, as their bullion value is over 90 cents. The following notice is posted in the offices of several of the more prominent Front street houses: "From and after this date all bills are made payable in gold coin, unless a special contract is made to the contrary at the time of purchase. Parties desiring to buy on a silver basis must make the same known at the time of purchase. Trade dollars not taken as silver coin, but at the market value."

Domestic Produce.

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of the previous weeks:

Articles.	Week Mar. 15.	Week Mar. 22.	Week Mar. 29	Week April 5.
Flour, quarter sacks	49,083	36,851	29,244	56,790
Wheat, centals	37,351	68,652	57,717	63,659
Barley, centals	8,402	13,465	17,731	8,756
Beans, sacks	2 920	1,299	1,048	521
Corn, centals	1,367	....	1,135	54
Oats, centals	869	842	1,139	2,197
Potatoes, sacks	9,953	7,672	168	7,351
Onions, sacks	434	700	413	744
Wool, bales	280	305	1,442	2,391
Hops, bales	2	40	50	87
Hay, bales	2,183	4,196	3,401	1,012

Bags—We advance our quotations again. Sales are now being made in lots at 12c on spot and 12¼@12½ to arrive.

Barley—The Barley trade is quiet. Receipts are large. We note the following sales for the week: 800 sks good Coast, $1.25, half silver; 900 do ordinary do, $1.22½, all silver; 200 do fair Coast, $1.20 gold; 400 do Bay brewing, $1.31¼, silver; 290 sks Coast feed, at $1.22½, half silver; 400 do choice Bay feed, $1.25; 450 do ordinary Coast at $1.18¾: 400 sks Bay feed, $1.25, a full figure; 300 do good Coast feed, $1.22½; 450 do dark do, $1.18¾, silver; 900 sks choice brewing, for the interior, $1.35; 1,000 sks choice Bay brewing, $1.35 per ctl.

Beans—Beans are quiet at last week's prices.

Corn—Corn is unchanged. We note small sales of large Yellow at $1.25 ₩ ctl, half silver; 85 sks good large Yellow at $1.22½; 300 sks choice Yellow at $1.22½; 100 do do, $1.25 ₩ ctl, half silver.

Dairy Produce—Butter and Cheese are selling at last week's prices. There have been reshipments eastward of Eastern butter, and a movement of California butter eastward is reported. Cheese is unchanged. Eggs have gone forward a point.

Fruit—Two vessels have arrived from Tahiti with an aggregate of 455,000 Oranges, 8,000 Limes and 600 Cocoanuts. The Fruit is in good order, but unripe and sour, and will be in demand for shipping only. Two carloads of Sicily Oranges are expected from New York shortly. Strawberries have arrived during the week, but in very small quantities; quotable at $1.50 ₩ lb. Apples are very scarce, and sell by the single box at $2.50 @4.50, according to quality.

Hay—Former rates prevail. We note sales: 48 tons Oat and Clover at $14.50; 42 do good Oat, $15.50; 38 do choice Wheat, under active competition, $19.75 ₩ ton; 10 tons Wheat at $18.50 ₩ ton; 20 do mixed, $15; 30 do Wheat and Oat, $16; 45 tons fair Wheat, $17; 70 do, two cargoes, fair Wheat and Tame Oat, $15. For a cargo of choice Wheat, $18.50 was refused.

Hops—We hear of a sale of 60 bales for local use at 13c; 13 bales good Sacramento for the East, 10c. The stock now in the city is estimated at 1,000 to 1,500 bales. Exportable parcels are held at prices which are above the views of shippers, and consequently there is but little doing. The latest information from the English market is the following, telegraphed from London, dated April 4th:

The *Brewers' Guardian* says that during the last fortnight a larger amount of business than usual at this time of year has been transacted in most descriptions of Hops, chiefly in low but useful grades of English, at a slight reduction in prices, but in American at an advance of from 2 to 3 shillings, and in Continental mostly at prices below cost to importers, and certainly considerably less than many of the quantities sold could now be purchased for at the places of production. The Continental markets are all firm at the late rise.

Oats—Oats are a fancy article and scarce. The price has reached even to $3 per ctl. We quote sales: 100 sks good Coast feed, $2.25; 350 do do, $2.27½@2.30 600 sks good Coast feed at $2.50; 160 do choice Surprise, $3, part silver; 650 sks choice Coast feed at $2.62½, gold. Heavy Milling are quotable at $2.87½ per ctl.

Onions—Onions have notably advanced. We quote sales: 60 sks good Stockton Yellow, $2.50 to $2.75; 60 sks good Stockton, $3.50; 165 do good Union City $3.77½ per ctl. This sharp advance is believed to be speculative. A dealer has made a corner in the stock.

Potatoes—Potatoes are higher. 400 sks choice Petalumas, $2.10@2.12½. Nevada and Salt Lake sell at $2.30@2.35. 100 sks Bodegas at $2.12½; 310 sks choice Petaluma, $2.12½; 200 do good do, $2. Sale of a carload choice Nevada, $2.35, half silver.

Provisions—The Meat trade is duller, owing to the lessening of the demand during Lent.

Poultry and Game—The only changes in the Poultry market worth mentioning are an advance in Chickens and a slight decline in Turkeys. There is but little inquiry for Game.

Vegetables—Asparagus, Green Peas, Rhubarb and Cucumbers are more plentiful and cheaper.

Wheat—As remarked above prices at the close of the week are difficult to reach. The following sales represent the range for the whole week: 6,000 sks choice Milling, $2; 2,000 do good do, $1.95; 4,000 do choice Shipping, $1.95; 6,000 do good do, $1.92½; 200 sks choice Milling, $1.95; 2,000 do good do, $1.90; 2,000 do good Shipping, $1.90; 10,000 sks choice Shipping, $1.92½ to $1 95; 8,000 sks good to choice Milling, $1.95 @2; 1,200 sks choice Santa Clara to a miller at $1.95; 150 do Pride of Butte, $1.95; 5,000 do choice Shipping, $1.92½; 20 000 do choice, delivered at Vallejo, $1 90, 1,500 do Coast Shipping, $1.80; 1,700 do do, $1.77½, 1,200 sks choice Milling, $2; 700 do good Shipping, $1.92½; 2,000 do Shipping, alongside, $1.90; 1,000 do, in warehouse, $1.90 per ctl. To-day (Wednesday) shippers claim to be unable to pay over $1.85. We hear of no sales at the reduced figures.

Wool—Receipts of spring Wool are rapidly increasing. We hear of sales of 75,000 lbs. at a range of 12½ to 18c; 21,000 lbs. short Wool, at 15½c; 6,000 lbs. long, 18c. Fall Wool is in small supply and neglected. The following are the Eastern markets by telegraph:

NEW YORK, April 1st.—There has been no increase in the volume of business since last report. The sales that are being made are of no real importance, for the reason that goods continue to sell slowly, and manufacturers in consequence purchase only small quantities to relieve their present necessities. Holders are still anxious to sell, but the present low rates act as no inducement to buyers. There have been no parcels of new spring California received here as yet. The price of choice Northern California is expected to open here very low, 28@32c being the anticipated extremes. Sales for the week are 60 bales Australian at 46c; 9,000 lbs. spring California at 20@23c for burry, and 29c for free; 18,500 lbs. fall do, 15@18c; 1.500 lbs. fine Texas, 27½c; 20 bags scoured do, 55c; 8,000 lbs. super pulled, 30@50c; 18,000 lbs. X and XX Ohio fleece, 46c; 35,000 lbs. washed Western do, 37@43c.

BOSTON, April 1st.—The Wool market is dull and drooping; manufacturers have been purchasing only as wanted, and there is no prospect of any favorable change. Holders are closing up stocks as fast as possible, and further concessions have been made to responsible buyers. Fine fleeces have been very little inquired for, and prices gradually settling down. Transactions in California Wool amount to 354,000 lbs. at from 19@31c for spring, and 14@22c for fall. Holders continue to work off stocks as fast as possible, having no confidence in the future of the market.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., April 5, 1876.

Article	Price
BEANS.	
Bayo, ₩ ctl	3 50@3 75
Butter	2 00@2 50
Pea	1 75@2 12½
Pink	— —@2 51
Sm'l white	1 85@2 00
Lima	2 3¼@2 40
BROOM CORN.	
Common, ₩ lb	2 @ 3
Choice, do	4 @ 5
COTTON.	
Cotton, ₩ lb	15 @ 18
DAIRY PRODUCE, ETC.	
BUTTER.	
Cal. Fresh Roll per lb	22½@ 26
Point Reyes	27½@ 30
Firkin	25 @ 27½
W'st'n Reserve.	16 @ 20
New York	— @ —
CHEESE.	
Cheese.Cal., lb	13 @ 16
do Old	10 @ 15
Eastern	15 @ 20
EGGS.	
Cal. fresh ₩ doz	27½@ 30
Ducks'	— @ 25
Oregon	22½@ 27
Eastern	21 @ 22½
FEED.	
Bran, per ton	— — @20 00
Corn Meal	29 00 @30 00
Hay	15 00 @18 00
Middlings	22 50 @— —
Oil cake meal	— — @37 50
Straw, ₩ bale	— — @ 6?
FLOUR.	
Extra ₩ bbl	5 75 @6 25
Superfine	4 75 @5 25
FRESH MEAT.	
Beef 1st quality lb.	8 @ 10
Second do	5½@ 6½
Third do	3½@ 4½
Spring Lamb	9 @ 10
Mutton	4½@ 5½
Pork, undressed	8 @ 8¼
do, dressed	10½@ 11½
Veal	5 @ 7
Milk Calves	8 @ 8½
GRAIN, ETC.	
Barley, feed ctl	1 20 @ 1 25
do brewing	1 30 @ 1 32½
Chevalier	1 25 @ 1 45
Corn, White	1 15 @ 1 25
do Yellow	1 15 @ 1 25
Oats	— — @ 2 37½
Milling	— — @ 2 87½
Rye	1 65 @ 1 75
Wheat shipping	1 90 @1 92½
do milling	1 95 @2 00
HIDES.	
Hides, dry	15 @ 15½
do wet salted	6 @ 7
HONEY, ETC.	
Beeswax, per lb	25 @ 27½
Honey in comb	12½@ 15
do Strained	8 @ 13
HOPS.	
New crop	10 @ 13
NUTS—Jobbing.	
Alm'ds h'rd sh'l lb	8 @ 10
do, soft sh'l	16 @ 18
Brazil do	14 @ 16
Cal. Walnuts	7 @ 11
Chile Walnuts	11 @ 12½
Peanuts per lb	9 @ 10
Filberts	15 @ 16
Pecannuts	17 @ 18
ONIONS.	
Union City ctl.	2 50 @ 3 75
Stockton	2 50 @ 3 75
POTATOES.	
Petaluma, ₩ ctl.	2 00 @ 2 12½
Salt Lake	— @ 2 35
Sac River	1 90 @ 2 12½
Humboldt	1 75 @ 2 12½
Early Rose	3 00 @ 3 25
Sweet	— @— —
New, lb	4 @ 6
POULTRY & GAME.	
Hens, per dz	9 00 @10 00
Roosters	9 00 @10 00
Broilers	7 50 @9 00
Ducks, tame, dz	11 00 @12 00
do Mallard	— @5 00
do Canvass	— @5 00
Geese, per pair	2 50 @3 50
Wild Gray dz.	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, lb	21 @ 23
do Dressed	22 @ 24
Quail, per doz	— @2 50
Snipe, Eng., doz.	2 00 @2 50
Doves, per dozen	50 @ 75
Rabbits	1 00 @1 50
Hare, per doz	1 50 @2 00
PROVISIONS.	
Cal. Bacon, L't, lb	16½@ 17
do Medium	16 @ 16½
do Heavy	— @ 15½
Lard	15 @ 17
Cal. Smoked Beef	9 @ 10
Eastern do	— @ 12½
East'rn Should'e	— @ 10
Hams, Cal	14 @ 14½
do Armour	15½@ 16
do Worster's.	16 @ 16½
do Dupee's	16 @ 15½
do Davis Bros'	16 @ 16½
SEEDS.	
Alfalfe, Chile lb.	8 @ 10
do California.	11 @ 12
Canary	20 @ —
Clover Red	— @ 25
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3¼
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white.	3 @ 3½
do. Brown.	3 @ 3½
Rape	7 @ 9
Ky. Blue Grass	33 @ —
do 2d quality	29 @ —
do 3d quality	— @ —
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	11 @ 13
TALLOW.	
Crude, ₩ lb	6½@ 7
Refined	9½@ 10
WOOL, ETC.	
SPRING—	
Seedy, ₩ lb	11 @ 12½
Choice long free	— @ 19
do short	15 @ 16½
Burry	— @ 12½
Oregon	— @ —

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., April 5, 1876.

Article	Price
BAGS.	
Eng. Stand Wht.	11½@12¼
Neville & Co's. Hand Sewed	11½@12¼
24x36	— @—
24x40	— @—
Machine do 24x40.	13 @14
" " 23x40.	12½@13
" " 22x40.	11½@12½
" " 22x36.	11 @11½
Flour Sacks ½s	9½@11
" " ¼s	6¼@ 7
" " ⅛s	4½@ 5
Hessian 60-in	12¼@14½
do 45-in	9½@10
do 40-in	8 @ 8½
Wool Sacks, 3½ lbs.	45 @50
do 4".	50 @52½
Stand. Gunnies	— @15
single seam do	— @—
Bean Bags	7½@ 8
CANNED GOODS.	
Ass't'd Pie Fruits in 2½ lb cans.	2 75 @ 3 00
do Table do	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl	— @ 3 50
Sardines, qr box	1 65 @ 1 90
do hf boxes	3 00 @— —
COAL—Jobbing.	
Australian, ₩ ton	— @10 50
Coos Bay	8 00 @10 00
Bellingham Bay	— — @ 8 50
Seattle	9 25 @10 50
Cumberl'd	— 16 @— 18
Mt. Diablo	6 25 @8 25
Lehigh	— — @22 00
Liverpool	10 00 @11 00
West Hartley	— — @14 00
Scotch	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl.	10 50 @ 2 00
Charcoal, ₩ sk	75 @ —
Coke, ₩ bbl	— @ 60
COFFEE.	
Sandwich Island	— @ 21½
Costa Rica per lb	22½@ —
Guatemala	— @ 22½
Java	— @ 31
Manilla	— @ 21½
Ground in cs	25 @ —
Chicory	27 @ —
FISH.	
Sac. Dry Cod, new	4 @ 4½
cases	6 @ 7
do boneless	8½@ 10
Eastern Cod	7½@ 8
Salmon in bbls.	7 00 @8 00
do ½ bbls	3 75 @4 00
do 2 lb cans	2 25 @2 40
do 1 lb cans	1 25 @1 60
do Col. R. ½b.	5 00 @5 50
Pick. Cod, bbls.	22 00 @ —
do ½ bbl	11 00 @ —
Mack'l, No.1, ½bbl	12 50@ 3 00
" Extra	— @12 00
" in kits	2 20 @2 75
" Ex mess.	4 00 @4 50
" Ex mess. ½bs	— @12 00
Pic'd Herr'g, bx.	3 00 @ 3 50
Bos'. Sm'k'd Her'g	40 @ 50
LIME, ETC.	
Lime, S'ta Cruz, ₩ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Land Plaster, ₩ ton	10 00@12 50
MISCELLANEOUS.	
Pulu	— @ 7½
NAILS.	
Assorted size. keg	3 75 @4 00
OILS.	
Pacific Glue Co Neat F't No. 1	1 00 @ 90
Pure	— @ —
Castor Oil, No.1	— @1 15
Baker's A A	— @1 15
Cocoanut	52 @ 55
Olive Plagniol	5 50 @5 75
do Possal	4 75 @5 00
Palm lb	9 @ —
Linseed, raw	— @ 70
do boiled	— @ 75
China nut in cs.	65 @ 67½
Sperm, crude	1 60 @1 65
do bleached	1 90 @2 25
Coast Whales	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Oleophine	— @ 28
Devoe's Bril't	25 @ 27
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive	— @3 50
Downer Kerosene	— @ 37½
Elaine	37½@ —
Gas Light Oil	23 @ 25
PAINTS.	
Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochre	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	— @1 25
Averill Chemical Paint, per gal.	
White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60
RICE.	
China No. 1	5 00 @ —
Hawaiian, ₩ lb	7½@ 7¾
Caroline, ₩ lb	10 @
SALT.	
Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	22 50@25 00
SOAP.	
Castile ₩ lb	10 @ 11¼
Common brands	4½@ 6
Fancy do	7 @ 9
CANDLES.	
Grant's	16½@ 17
Mitchell's	20 @ 22
SPICES.	
Cloves ₩ lb	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmeg	95 @ 97½
Whole Pepper	14½@ 15½
Pimento	16 @ 17
Gr'nd Allsp pr dz	— @1 12½
do Cassia do	— @1 50
do Cloves do	— @1 50
do Mustard do	— @1 20
do Ginger do	— @1 00
do Pepper do	— @1 00
do Mace do	— @2 00
Bowen's Pure Ground ₩ lb	— @ 50
SUGAR, ETC.	
Cal. Cube per lb	— @ 12
Circle A crushed	— @ 12
Powdered	— @ 12½
Fine crushed	— @ 12
Granulated	— @ 11½
Golden C	— @ 10½
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 70
Hawaiian Molasses	25 @ 27½
TEA.	
Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpowder, Cant.	75 @1 00
do Pingsuey	60 @ 90
do Moyune.	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½&1 lb paper	30 @ 55
TOBACCO—Jobbing.	
Bright Navys	50 @ 65
Dark do	50 @ 55
Pieces Tin Foil	— @ 75
Gregory	70 @ —
Tw t Twist	65 @ 75
Light Pressed	70 @ 80
Hard do	50 @ 60
Conn. Wrap'r	40 @ 60
Penn. Wrapper	20 @ 45
Ohio do	15 @ 20
Virgi'a Smok'g	45 @1 00
Fine ct che'g, gr.	8 50 @9 50
Fine cut chewing, buc'ts ₩ lb	75 @
Banner fine cut	— @9 00
Cal Smoking	37 @1 00
TURPENTINE.	
Eastern	51½@55

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., April 5, 1876.

Article	Price
FRUIT MARKET.	
Oranges Mex. ₩ M	— —@— —
Tahiti, do	— —@— —
Cal. do	25 00@70 00
Limes, Mexican, ₩ M	15 00@20 00
Malaga Lemons, ₩ bx	— —@— —
Cal. ₩ 100	2 00@ 2 75
do Sicily ₩ b'x.	12 00@14 00
Bananas, ₩ bnch	2 50@ 4 00
Cocoanuts, ₩ 100.	7 00 @ 8 00
Pineapples, ₩ dz.	6 00 @ —
Apples, ₩ box	1 87½@ —
do Choice	2 00 @3 50
Blackberries	— @ —
Figs	— @ —
Huckleberries	— @ —
Strawber's ₩ ch.	— @20 00
Pomgranates	— @ —
Raspberries	— @ —
Currants, ₩ ch.	— @ —
Quinces ₩ bx	— @ —
Cranberries ₩ bbl.	13 00 @14 00
Peaches, ₩ bx	— @ —
Pears, ₩ bx	1 75 @3 00
do Choice	— @ —
Crab apples, ₩ bx	— @ —
DRIED FRUIT.	
Apples, ₩ lb.	9 @12½
Pears, ₩ lb	8 @13
Peaches, ₩ lb	12 @12½
Apricots, ₩ lb	14 @15
Plums, ₩ lb	5 @ 6
Pitted, do ₩ lb	17 @22
Raisins, imported.	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₩ lb	5 @10
White, do	12½@15
Prunes	12½@17
Citron	28 @ 30
Zante Currants.	9 @ 10
VEGETABLES.	
Asparagus ₩ lb	4 @ 5
Beets ₩ ctl	—@—
Cabbage, ₩ 100 lbs.	90@1 00
Carrots, per ton.	12 50@15 00
Cauliflower, doz	50@1 00
Celery, doz	50@ 75
Garlic, ₩ lb	— @ 50
Green Peas ₩ lb	3 @ 3½
Green Corn ₩ doz	— @—
Sum'rSquash ₩ box.	— @—
Marro'fat Sqsh, tn	20 00 @30 00
Artichokes, ₩ doz	— @—
String Beans, ₩ lb.	— @ —
Lima Beans	— @—
Parsnips	— @—
Shell Beans	— @—
Peppers, green, bx.	— @—
Okra	— @—
Cucumbers, ₩ doz	2 25@3 00
Tomatoes, box	— @ —
Egg Plant, bx	— @ —
Rhubarb	10 @ 12½
Lettuce	— @ —
Turnips, pr ctl	75@1 00
Mushrooms, lb	— @ —

RETAIL GROCERIES, ETC.

WEDNESDAY M., April 5, 1876.

Article	Price
Butter, Cal. ch'ice	35 @ 45
Cheese, lb	18 @ 30
Eastern	25 @ 30
Lard, Cal., lb	— @ 18
Eastern	20 @ 25
Flour, ex. fam, bl	6 25 @8 50
Corn Meal, lb	2½ @ 3
Sugar, wh. crsh'd	12½@ 13½
do lt. brown. lb	8 @ 9½
Coffee, green, lb	23 @ 35
Tea, fine blk, 50, 65, 75	@1 00
Tea, finest Jap, 55, 75, 90	@1 00
Candles, Admant'e	15 @ 25
Soap, Cal., lb	7 @ 10
Rice, lb	8 @ 12½
Yeast Powder dz.	1 50 @2 00
Bowen Bro. large can per doz	5 00 @— —
Small, do	2 50 @ —
Bowen's Cream Tartar lb	— @ 75
Can'd Oysters, dz.	2 00 @3 50
Syrup, S F. Gol'n.	75 @1 00
Dried Apples	10 @ 12½
Dr'd Ger. Prunes	12½@ 14
Dr'd Figs, Cal	9 @ 10
Dr'd Peaches	11 @ 15
Oils, Kerosene	30 @ 40
Wines, Old Port.	3 50 @5 00
do Fr. Claret.	1 00 @2 50
do Cal., dz. bot.	3 00 @4 50
Whisky, O K, gal.	3 50 @5 00
Fr. Brandy	4 00 @8 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by CHARLES SUTRO & CO.]

SAN FRANCISCO, April 5, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 89 to 89½.

GOLD in N. Y. 113.

GOLD BARS, 900. SILVER BARS, 12 and 16 per cent. discount.

EXCHANGE on N.Y., 50-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, eight to ten per cent. discount.

LONDON — Consols, 93 to 93¼; Bonds, 102¼

QUICKSILVER in S. F., by the flask, per lb, 72½c@75c.

ARBORICULTURE.

Growing Eucalyptus from Seed.

EDITORS PRESS:—"I keant git them thar gum trees to grow from the seed, kase arter they's up a bit, they drap off; I reckon they's a kind o' a chinch bug that's eatin' them. Kin you post me a bit." Thus wrote an honest old farmer from San Joaquin, three years ago, of his troubles, and as many who attempt the growing of these trees, meet with the same difficulty. I shall point out the trouble and run the chauces of disclosing the secrets of the trade, believing that the more thoroughly the true character of the eucalyptus family is known, the more general the planting. Nor do I consider there is any necessity for secrecy in their propagation, as the fact cannot be denied, that a more liberal policy in spreading useful information will result in increased gains to the nurseryman, and farmers will plant more liberally with greater assurance of success.

Failure of the Hot-Bed System.

The fact was disclosed in corresponding with our San Joaquin friend, that he had rigged up a first class hot-bed of steaming mannre, covered it with some four inches of rich sandy soil, sowed his seed in the month of March, and after they had freely broke ground, and before the second rough pair of leaves had come on, his young seedlings had "damped off," by first apparently wilting and then decaying. The watering pot had been freely used to prevent drouth, but they would "drap off."

A hot-bed is no place to grow blue gnm trees except in the hands of the most skillful operator. The stimulating influence of bottom heat excites a morbid growth, and unless air and water are given at the right time and in proper quantities, unfavorable results must follow.

How to Succeed.

The most complete success is always attained in using light sandy loam with no exciting manures whatever; the growth of the young seedling being slow but strong, withstanding the climatic changes of spring. and producing an embryo stock of great vitality. But the great trouble most persons experience is the "damping off" just after they are out of the ground, and herein lays the trouble: Soil too rich; too much sunshine, wind and water.

In planting use shallow boxes. Place them in a warm but shady position, protected alike from sunshine aud winds, and water regularly. After the seed is sown the surface of the ground should never be allowed to get dry, and after the seedlings are up, water should be given very sparingly, but often, till out of seed leaf, when all danger is past, so far as "damping off" is concerned. But a new stumbling block is ahead. These seedlings must be transplanted or worked over, or else the stronger growing ones will stunt the weaker fry, and one-half of the number will be rendered useless.

How to Work Over.

Take a day when cool and cloudy; procure rather strong soil, if inclined to be clayey so much the better, and use one-fourth sand, mixing thoroughly. Have your soil of that degree of dampness, that it will scarcely pack in the hand when bunched up. Fill the boxes up even with the top and settle moderately by shaking. Now take one plant out at a time, making a hole with the finger in your box of soil, down deep, and place the yonng plant therein, filling the hole around the roots, and with the thumb and finger inserted down around the roots, distant one inch each side, give the soil a gentle squeeze to firm the plant. Refill the holes and your work is over. The different sized plants should be assorted out and planted in different boxes.

Care.

Now comes as critical work as bringing them through their tender infantile state. They must be carefully shaded from sunshine and watered till past the wilt. The small fry must remain in complete shade till strong enough to bear partial sunlight, and never allowed to dry out or suffer, or stunted plants must be expected. But to grow them in the open ground will be much better, producing stronger plants and more robust and perfect in root formation. This will form the subject for a future article.

Time to Sow Seed.

It is always better to sow the seed in September. The plants will then be large enough by November to work out. The weather is cool, causing much less mortality in plants, and by spring time your little brown, rusty looking gum tree will be semi dormant, and can be handled with safety. A great many farmers prefer to buy of nurserymen, supplies of seedling trees, and grow them themselves, and not bother with the propagation from seed. The price that these may be bought at, is now so low that a greater incentive to a more general planting may reasonably be expected.

At sometime in the future I will in detail give the various operations we practiced in growing the trees on an extensive scale. By this working practice, last season, we have turned out 30,000 per week from June to December 15th. W. A. T. STRATTON.

Petaluma, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

TREES FOR FRUIT AND ORNAMENT.

500 Acres of Trees at Wholesale & Retai

Pear, Apples, Cherries, Quinces.
Peaches, Plums and other Small Fruits.
New and Rare Ornamental Trees and Shrubs.
Evergreens, large quantity, large variety, cheap.
Cut-leaved Birch, Purple Beech, Weeping Trees.

Clematis Jackmanni—Hardy and perpetual; blooms profusely until frozen up.

Perpetual White Clematis, 15 sorts. We have over 70 varieties of Clematis, in many shades of color, from dark rich purple to pure white—strong plants, safely sent by mail.

Roses, Moss, Tea, Climbing and Perpetnal.

Small Packages sent safely by mail and express.

☞Catalogues free. Address

T. C. MAXWELL & BROS.,
Geneva, N. Y.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general as sortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petalnma, Sonoma Co., Cal

SUPERIOR FRUIT TREES,

TRUE TO NAME.

A fine collection of Evergreen and Deciduous trees. Australian Gum trees in variety, by the hnndred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon trees at reduced prices. A general variety of Nursery Stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

325 Washington street. S. F.

Formerly at 315 Washington street.

Scions for Grafting and Strawberry Plants

At Felix Gillet's, Nevada City, Cal.

Best varieties of winter Pear: Bergamotte, Passe-Crassanne, Royal d' Hiver, Doyenne, Beurre Clairgean and Duchesse d' Angouleme, (fall pear).

Cherry: Gnigne Marbree, Grosse de Mezel and Noire Luisante.

Chestnut: Marron de Lyon and Combale.

Walnut: Prœparturiens. Four varieties of Filbert plants. All imported varieties.

Twenty-six varieties of the nicest Strawberries at $5 to $8 per hundred plants. Ever bearing Raspberries, (three crops a year), $5 per hundred.

Every variety guaranteed to be true to name.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs aud Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

BAY NURSERY,

OAKLAND, CAL.

Lock Box, - - - 331.

JAMES HUTCHISON, Proprietor.

[Established 1852.]

Has for sale an Immense Stock of EVERGREEN TREES, SHRUBS and FLOWERING PLANTS at GREATLY REDUCED PRICES. Monterey Cypress Seedlings from two and a half to five dollars per hundred. Two and three year plants two to six feet, twelve and a half to twenty-two dollars per hundred. Chinese Arbor Vitæ, twelve to sixteen inches, eight dollars per hnndred.

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, rang from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.

November, 1875.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreene, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias aud Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

LEA & PERRINS'

CELEBRATED

Worcestershire Sauce.

Declared by connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,
San Francisco.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,

19 New Montgomery Street, S. F.

☞Graud Hotel Building.

W. R. STRONG, Seedsman. Established 1857. 1876. ROBT. WILLIAMSON, Nurseryman, Established 1865.

SEEDS. W. R. STRONG & CO. TREES.

S. F. Office, 418 & 420 Clay St., Sacramento Office, 8 & 10 J St., Nursery Grounds, Sacramento Co

GREAT REDUCTION IN SEEDS.

Seeds heretofore retailed by all dealers at Ten cents per paper, we will now furnish at Five cents. They will be forwarded by mail, postpaid, to any part of the United States without extra charge (except on heavy Seeds, such as Peas, Beans and Corn; on which postage will be added). This will cover Vegetable and Flower Seeds. Also, a great reduction on all higher-priced papers. Money should always accompany orders, and may be forwarded in registered letters, or by postal orders at our risk. Our assortment is probably the finest on the Coast.

Seeds of our own growth or imported by ourselves from the most reliable producers in Europe or America. For freshness, purity and perfect development they cannot be excelled. Garden, Flower, Field and Tree Seeds. Ornamental, Evergreen and Deciduous Shrubs and Plants. Flowering Bulbs of every description. Trees—Fruit, Ornamental and Shade Trees; California, Australian, Eastern and European. We guarantee Satisfaction. Send us your orders. Catalogues furnished on application.

House in Sacramento, W. R. STRONG & CO., House in San Francisco. STRONG & WILLIAMSON.

ALFALFA a Specialty, and furnished to the trade, or in small quantities, at lowest possible rates,

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, Including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

GOOD SEEDS

Grown with care and painstaking, from selected stocks, ALWAYS PAY. Try mine. See advertisement, "All About Gardening." J. B. ROOT, Seed Grower, Rockford, Ill

THE ALDEN FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier. Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

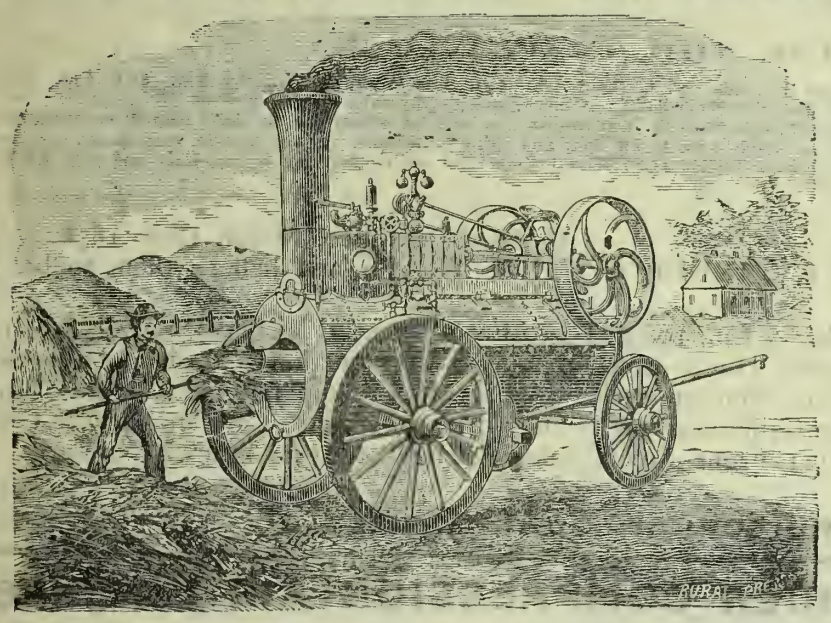
We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL.

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the state, and gave the very best satisfacton, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are intringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific Coast, and all orders should be addressed to them.

SAN FRANCISCO, January 10th, 1876. H. W. RICE.

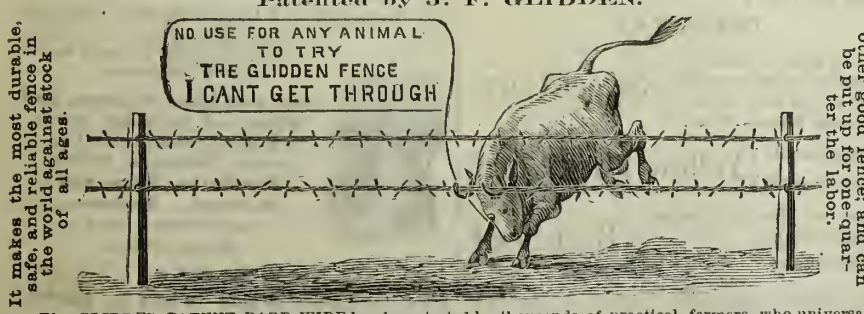
Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street San Francisco, and corner Second and J Streets, Sacramento.

P36b76f6* MARCUS C. HAWLEY & CO.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.



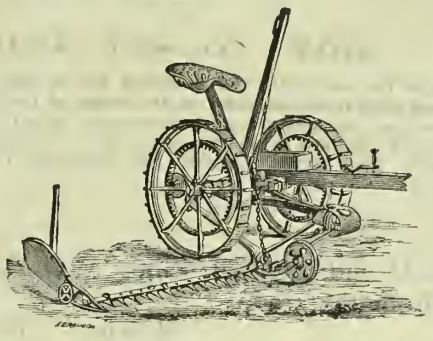
The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

LINFORTH, KELLOGG & CO.,

3 and 5 Front Street, - - - - San Francisco.



WM. ANSON WOOD'S EAGLE MOWER.

RUSSELL PEERLESS MOWER.

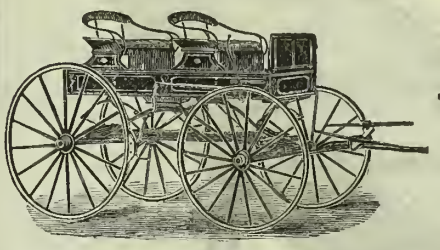
WM. ANSON WOOD'S EAGLE MOWER,

Now acknowledged to be the LEADING MOWER ON THE PACIFIC COAST. First—From its durability and strength, being constructed of iron and steel. Second—From the rapidity of its motion, cutting all kinds of grass. IT WILL ALSO WORK ON VERY UNEVEN GROUND.

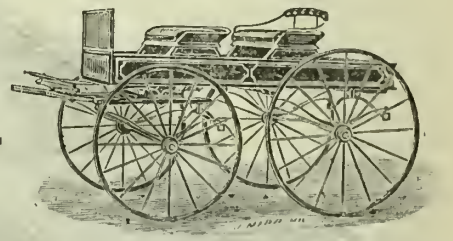
RUSSELL'S PEERLESS MOWER,

New Improved, with Rear Cut, High, Broad Wheels and Covered Frame. It runs the lightest, has less side draft and the gearing is better protected than any machine in the market. There is less danger of breakage and no fear of stoppages by dirt dropping into the cogs.

A Full Supply of Extras for the above Machines Constantly on Hand.



FISH BROS.' FOUR SPRING WAGON.



FISH BROS.' PLATFORM SPRING WAGON

FISH BROS. & CO.'S

PACIFIC FARM, SPRING AND HEADER WAGONS.

The best painted, the best proportioned, the best ironed, and the Best Wagon on Wheels. We can sell a BETTER SPRING WAGON FOR LESS MONEY than any firm in California, comprising Two Spring "Specie Basis" and Platform Spring Delivery Wagons; Three and Four Spring Express Wagons, both with plain and Sarven's Best Patent Wheels.

LINFORTH, KELLOGG & CO.,

3 and 5 Front Street, S. F.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Cal

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

WOOD'S

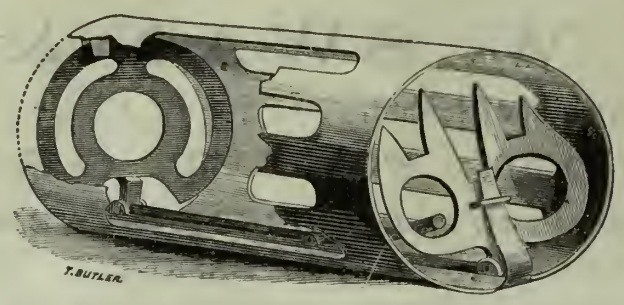
PATENT CYLINDER GOPHER TRAP.

THE BEST MACHINE

FOR

CATCHING COPHERS

IN EXISTENCE.



NEVER LETS ONE ESCAPE.

HAS HAD FIVE YEARS

—OF—

UNPARALLELED SUCCESS.

THOUSANDS ARE IN USE ON THE PACIFIC COAST.

We might print Thousands of Testimonials from the Users of them, but deem it unnecessary, as the Best Recommendation is a Trial of Them.

HOW TO SET AND USE THE TRAP.

Push the spring door back until it passes to the end of the rod—which it will do only when the back end of the rod is down close to the back of the trap—then also, push down the front end of the rod until the back end rises to the shoulder on the inside of the back door, on which let it rest but very little, in order that it may be SET LIGHT, or so it will spring easily. Whenever fresh dirt is thrown up, dig until the open HORIZONTAL hole is exposed, then place the trap WHOLLY IN, and set a board at an angle behind the trap, and cover with dirt in such a manner as to form a DARK CHAMBER behind the trap, which the animal invariably tries to fill, and thus springs the trap. If the hole is extra large, use No. 2, but in most cases No. 1 is as large as the hole. ASK YOUR HARDWARE MERCHANT TO SHOW THEM TO YOU. Try one and use it according to directions and you will be pleased.

SAN FRANCISCO, March 18th, 1876.

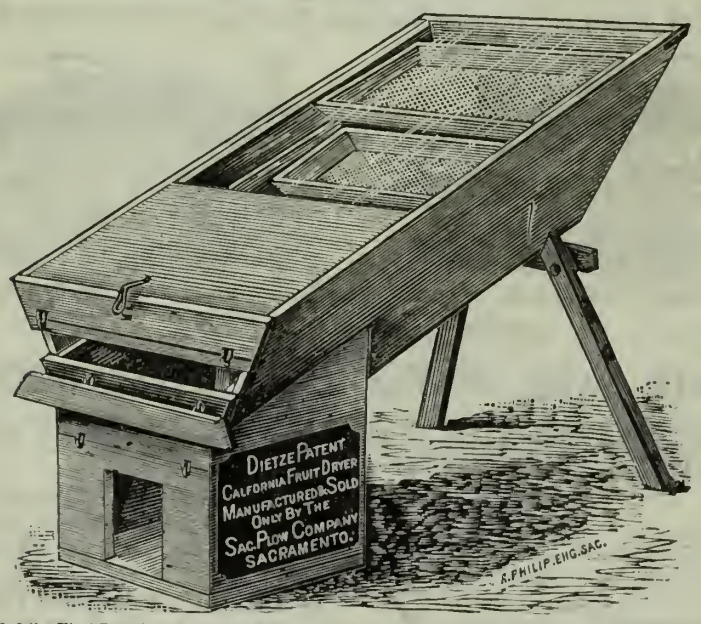
We, the undersigned, have sold and are still selling WOOD'S CYLINDER GOPHER TRAPS, and believe them to be a good machine, and solicit orders from the trade.

Marcus C. Hawley & Co., 108 and 110 Front street; Fleishman, Sichel & Co., 37 and 39 Battery street; Locke & Montague, 110 and 112 Battery street; Huntington, Hopkins & Co., junction of Bush and Market streets; Linforth, Kellogg & Co., 3 and 5 Front street; Treadwell & Co., Market street, head of Front; Jas. E. Gordon, 349 Market street, opp. Front street; Holbrook, Merrill & Co., 111 and 113 California, and 17 and 19 Davis streets; Carolan, Cory & Co., 117 and 119 California street; Dunham, Carrigan & Co., 107, 109 and 111 Front street; Baker & Hamilton, 7 to 19 Front street.

R. E. WOOD, Patentee and Manufacturer, Santa Cruz, Cal.

CALIFORNIA FRUIT DRYER.

DIETZ PATENT.



Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple in construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,
Sacramento City, Cal.

RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

ot a Valve, Spring, Cam, Lever or Eccentric about them.

ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.

Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

Send for Circular and Price List, or call and see one in operation.

HUNTINGTON, HOPKINS & CO.,

Sole Agents for the Pacific Coast,

Junction of Bush & Market Sts., S. F.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early
Marblehead Mammoth
Stowell's Evergreen
Mexican Sweet, New } Sweet Corn.

Early Canada
Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel
Yellow Globe
White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED **POULTRY.**

BRONZE **TURKEYS.**

PRICE-LIST For 1876 Now Ready.

EMDEN GEESE, Pekin Ducks.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

FARMERS write for your paper.

POND LILIES,

WHITE FLOWERING,

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,

Pacific Forest Tree Nursery, Petaluma, Cal.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

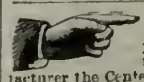
JOHN JENNINGS, Proprietor.

Dewey & Co. { 224 Sansome St } **Patent Agt's.**

The Mining and Scientific Press,

Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & CO., San Francisco.

NO AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.



Farmers — Don't waste your money on agents and middlemen, but buy direct from the manufacturer the Centennial Windmill. A first-class 10-foot Rosette wheel. Price $75. Send for Circular.

E. O. HUNT,
37 Fremont street, San Francisco.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, APRIL 15, 1876. [Number 16.

Cotate.

During the week, through the courtesy of Mr. Wilfred Page, we made a visit to the famous Cotate ranch, in the Santa Rosa valley, in Sonoma county. The splendid property, "Cotate," belongs to the estate of the late Dr. Thomas S. Page. It comprises 10,000 acres, embracing both plains and slopes. Every acre of it is available, and all is covered by the improvements. The ranch was purchased by the late Dr. Page, in 1849. During the years which have intervened between then and now the property has received most careful improvement, until it may, perhaps, be doubted whether there is in the State so large a tract more completely improved. As a single indication of the work which has been done it may be mentioned that there are seventy-one miles of first-class fence upon the ranch. The wide reach of its boundaries includes a variety of soils and a changing beauty, from the grateful shade of a grove of primeval oaks and madronos to the open stretches of the plains.

Stock Breeding.

One of the leading industries on the Cotate ranch is stock breeding. There has been effort toward the improvement of the stock since 1861, and the result is very apparent to a visitor. The breeding is pursued on the line of the increase of useful qualities, both for beef and for the dairy. For this purpose the managers of the property imported thoroughbred Short Horns, and have succeeded in rearing not only a fine band of thoroughbreds, but by crossing upon the native stock, have developed a herd of high grades which it is hard to surpass anywhere.

Of thoroughbred Short Horns there are now on the ranch three bulls, "Sonoma," "Duke of Sutherland" and "Mazurka's Royal Oxford;" ten cows breeding, (seven due next month,) besides a lot of fine yearling bulls and calves and heifer calves. These are all proud and princely animals, worthy to tread the courtly Cotate.

The improvement which has been gained by the introduction of fine blood to the native breed was one of the points in the whole interesting examination of the estate which impressed us most deeply. For this is a vital part in our whole stock interest. If we can invoke the potency of the thoroughbred to largely increase our receipts from our cattle, with the same care and feed, then there is at command an agency which no stock grower or dairyman can afford to disregard. That this result is possible has received proof which is equal to a demonstration. Take, for instance, a single transaction from the business of the Cotate ranch. There were sold at a single sale 125 head of three-year-old steers, at $50 a head. They were not stall fed. How good this sale was any one can judge who has brought the same number of native three-year-olds upon the market. Fifty dollars each, as an average, in a herd of three-year-olds, is not a bad figure. It was gained by bringing the beef qualities of the thoroughbred Durham upon the native stock, and by grading up toward the standard proportions of the thoroughbred. The influence of this improvement was not more clearly marked in the beef cattle than in

The Dairy.

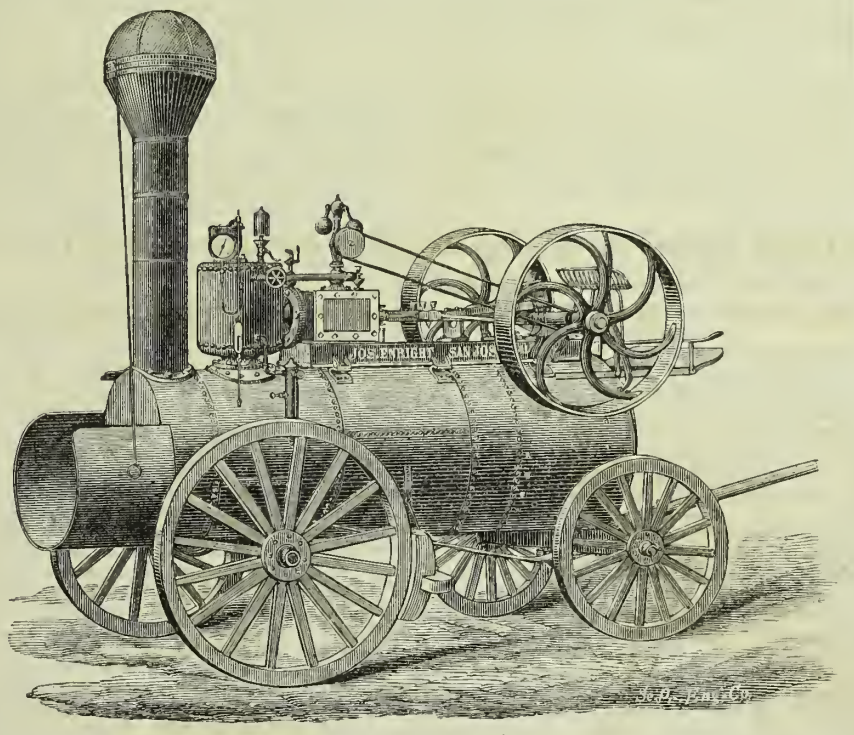
The dairy herd in milk at the time of our visit contained 123 cows and heifers. The daily make of butter was 145 pounds. This is a splendid average, and the hight of the season has not yet come. It is an average which can challenge the best of Eastern dairy herds to equal it. We have enjoyed few farm scenes as we did the examination of this milking herd. The conformation for milk of the majority of the animals was wonderful. That the herd has been built up with great care is apparent, and the result warrants the care. Full feeders, economical manufacturers and fitted by their natural parts to the best deeds in milk, they bring to their task a most perfect disposition and a quiet docility—all of which are essential to their work. As with the beef cattle, the result in the milkers has been gained by grading up the native stock upon which the herd is founded.

The appliances of the dairy are as creditable as the cattle. The dairy house is well constructed and well kept, and the product tells its own story in the market by gaining the top prices.

One credit in the creditable showing of the ranch must be given to the splendid growths in the pastures. This is of course the foundation of all success, and even a hasty examination of the Cotate turf shows its wealth in this particular.

Sheep.

The flocks on the ranch number at the present time about 11,000 sheep and lambs. The average clip last year was five and a half pounds. The lamb crop this year was about 4,000, of which the greater part were sold for city tables. It is the practice to arrange for about 400 lambs in December, to catch the reward of the high prices at the opening of the season. This year the early lambs brought $2.37½ each.



THE ENRIGHT PATENT PORTABLE WOOD AND STRAW BURNING ENGINE.

The breeding is done with thoroughbred French and Spanish merino rams.

The Horses.

The horse receives that attention upon Cotate which entitles it to a name among the other ranches in the fine horse county of Sonoma. A very promising young stallion, "Cotate," English draft, from a thoroughbred sire, shows many handsome and valuable points.

We enjoyed very much our visit to this estate, where so much that is practically progressive and valuable in agriculture is being accomplished. We have only alluded to a few of the points observed. Every year there is something done in grain, and the hay crop would reach very high figures. All these varied interests are carefully and energetically advanced by the foreman, Mr. William McDowell, who is a man peculiarly adapted for the place he occupies.

Our Field.—The wide field of usefulness covered by the Rural Press is a matter of congratulation. Among the letters received during the week is one from Dr. S. M. Curl, of Wellington, New Zealand, which says: Having seen one of your papers I am anxious to be a subscriber. Please forward me all the issues from the commencement of January and continue to send them."

A Hedge of Geraniums.—The *Gardener's Chronicle* says that on the Scilly isles, which receive the full force of the Gulf stream as it dashes against the coast of England, there is rarely frost, and it speaks of a garden there in which there is a hedge of scarlet geraniums 14 feet high.

The Enright Patent Portable Wood and Straw Burning Engine.

We illustrate to-day what we believe to be a very worthy and successful Californian invention. Mr. Enright, the inventor, who has secured several patents through the Mining and Scientific Press patent agency, makes the building of field threshing engines a specialty. He has studied closely the wants of the farmers of this State, for whom he has labored diligently for many years. The engraving presented was drawn and engraved for the Press by our own artists. Those familiar with this class of agricultural machinery can readily observe the special features of these engines, except such as are mentioned by Mr. Enright in the following card, which we publish in this connection in order that our readers may receive his claims in his own words:

Fifteen years ago I constructed the first portable thresher engine on the Pacific coast, and its introduction in the harvest field was an important event in the history of grain raising in California. From that event up to this time, I have been constantly experimenting and improving on my original ideas of steam threshing in the open field, until I have now constructed an engine and boiler so near perfection that it is barely possible to be improved upon.

Having for so many years made it a specialty to construct portable thresher engines, I can with confidence recommend my patent wood and straw burning engines manufactured by me at the present time, an engraving of which is given on this page. They burn wood or straw without change, and coal by changing two plates; they have also the advantage of compactness, superior workmanship, great durability and economy in saving fuel, using but two tons of straw to equal one and a half cords of wood, and saving 40 per cent. of fuel usually consumed by wood burners.

It is a well known fact that straw has been successfully used as a fuel to raise steam, in Europe, for many years, and it has been lately introduced on this coast, but with little success until I invented for that purpose my "patent ring grate and combustion chamber," which prevents any choking up of flues, and by which I am enabled to admit a larger supply of air, thereby forming complete combustion and doing away with all delays on the field.

I built and sold 13 of them last season, all of which gave entire satisfaction, which is proved by the many testimonials received from those using them.

I am now busy constructing 20 more for this season and intend to have them all ready for use this present harvest; I also intend to make it the interest of all farmers to purchase of me, who need a cheap and economical power for threshing. I come before you with this power, with full assurance of your patronage, having considered your needs in this very essential invention. I have had an offer from parties in San Francisco and Sacramento to have my engine built in the East on royalty, which offer I declined, although it may have been to my advantage to do so; I preferred to be sustained by the people of California in home manufacture, and I come before you with an engine that is guaranteed to you in every respect, and which took the premium at the California State fair of 1875, as the best straw burner. And I further state that I hold myself in readiness to reinforce any of my customers; all that is necessary for them to do, is to send me a telegram and I will be at their service.

Thankful for past patronage, and by strict attention to business, I hope in the future to merit your approbation and continued patronage.

Further information can be had concerning these engines by addressing Mr. Joseph Enright, at San Jose, Santa Clara county, Cal.

Plowing Matches.

Plowing matches have received but little attention at our State Fair meetings. The fact that in September at the meetings but one character of soil was available and that was dry, doubtless interfered with a successful trial of plows. Again, the "excitement" which our stock breeding friends denounced so heartily in our report of their meeting last week, is fully as unfavorable for showing agricultural implements as for showing stock. Also, the attention of the officers of the fair being so wholly engrossed in arranging the excitements, was drawn away from more useful matters. The result has been that a mere handful of people have witnessed the fair trials and their benefit was much restricted.

We print on page 244 this week an official report of the recent trial at Rio Vista, in Solano county. This trial was arranged by farmers, and they evidently meant to sift the question of plows thoroughly. They waited until a fair day came, and then they put in the plows for competitive work. Heavy adobe soil was tried; heavier, perhaps, than exists elsewhere on the globe. The trial was apparently fair and thorough, and competing plows embraced most of our best makes. To the victor belongs the palm in a fair trial of this kind, and the work done justifies us in mentioning prominently the conqueror, which was Hill's Eureka gang plow, manufactured by the Sweepstakes Plow Co., of San Leandro, Alameda county.

We are glad that the farmers have begun in earnest to arrange competitive tests of the implements which are offered to them to purchase. It would be well if many of the implements of the farm were thus tested in the different localities. Manufacturers will be found ready, we think, to furnish their machines for trial, and the success of each under the conditions in which the farmer has to work them can be proved before his own eye. Thus the various adaptations and excellences of all farm tools can be determined.

Show of Grapes and Raisins.—We recently made a brief note of the raisins which R. B. Blowers, of Woodland, Yolo county, was having handsomely boxed for the Centennial. We are further informed that the display will consist of four boxes of Muscatel raisins in fine order. Besides these, Mr. Blowers intends during the fruit season to send to the Centennial samples of the following grapes: Muscatel, Large Red Grape (name unknown), Flame Tokay and Black Morocco. This will be a useful and valuable exhibition, and we are glad Mr. Blowers will make it.

CORRESPONDENCE.

Planting Trees—San Jose Nurseries.

EDITORS PRESS:—Mr. F. Pascost, who lives three miles west of Santa Clara, has been making some noteworthy improvements within the last few years in the way of planting trees. In the first place, Mr. P. has a very desirable location, with good convenient roads running in almost every direction—to Santa Clara, Lawrence station, Mountain View, and the wood-covered Santa Cruz mountains. His land is all high and dry, and of the 160 acres, most of it is well adopted to fruit growing, as has been demonstrated the last two dry seasons. Within the last two years Mr. P. planted 15 acres of the driest and most gravelly portion of the place with fruit trees, which have made a good healthy growth without irrigation; and last summer he raised a good fair crop of squashes in the spaces between the trees in the orchard, notwithstanding the fearful dryness of the season.

These results have encouraged him to add largely to his orchard this season; having planted 45 acres more with apple, pear, peach, prune, cherry, apricot and almond trees—making an orchard of 60 acres. And next winter he intends to plant out 45 acres more in fruit trees. This will give him about as big an orchard as any reasonable man could desire.

Mr. Pancost says the peaches raised on this place are superior in flavor to any he has tasted in the State. He has a little almond orchard of the Languedoc variety, two years from the nursery, looking very fine and full of bloom.

A Pioneer Fruit Grower.

Although Mr. Pancost does not claim a very extensive experience in raising tree fruits, he is one of the pioneers in the small fruit business. As early as the year 1852 he commenced raising strawberries in Alameda county, for the San Francisco market. Gold was then more abundant in California than berries, or the plants producing them, I presume, judging from the price paid for both. Mr. P. says he paid $75 for the first 200 plants he purchased, and got cheated at that—getting some worthless, barren sort, which, after carefully propagating until he had stock enough to plant six acres, he had to abandon and dig up, to substitute others. This was a sad disappointment, as well as a heavy loss, when berries were worth such fabulous prices. Mr. P. says he has sold strawberries in San Francisco for $5 per pound.

About this time another party in Oakland, in some way procured three plants known as the British Queen. These were most carefully propagated for three years, when the plants were sold for $300 per 1,000.

A Drive Among the Nurseries.

This day being exceedingly fine, the air soft, balmy and warm, I made a flying visit to some of our nurseries and fruit growers, and found everything looking lovely. Never before, in any country, was there a better prospect for an abundant crop of fruit of all kinds than the present. Every orchard just teeming with bloom, and the trees looking well rested and healthy.

L. F. Sanderson's

Ornamental nursery, near the northern city limits, was looking like a little Eden of beautiful trees, shrubs and plants, while the air was all laden with perfumes, as from "Araby the blest." Mr. S. reports his sales this season as very satisfactory and encouraging, and he is now busy replanting and cultivating for future business. At Mr.

John Rock's

Nurseries, I found his men in the packing yard busily engaged in putting up numerous orders for trees, etc., for Nevada. This is an advantage our tree growers have in California that I had not thought of before. After the season for handling and starting has well nigh passed here, it is just in good season to ship to planters among our neighbors over the snow covered mountains. Mr. Rock says he has orders enough from this direction to clean him entirely out of fruit trees. He intends replanting and filling up his entire area of nursery grounds of 50 acres this spring. I found

Mr. B. S. Fox

Where I always find him, at his headquarters among his plant houses, busily directing a host of Chinamen in putting up trees, etc., for the city trade and elsewhere. His big stock of merchantable fruit trees has been disposed of and a large amount of ornamental trees have also disappeared from his extensive grounds and plant houses. He is largely extending his business in every department, having at this time 30 men employed in planting and refilling his grounds, and in addition to his two large and beautiful plant houses of 120 feet in length by 32 in width, each, he is preparing to build another of the same dimensions, cost what it will. Mr. Fox is bound always to keep well up with the times in his chosen line of business.

On my return to town I drove round by the way of the

Messrs. Hannay Brothers'

Nurseries, and found their sale-yards pretty well thinned out of trees heeled in for sale. They report their work of planting all done, except some seeds which they were starting before putting out in the nursery rows. Their land being favorable for early work, their planting of grafts had been finished some four weeks ago, and now are leafed out, showing a vigorous uniform growth along the rows. Their sales have been satisfactory, and they expect to be in the market next winter with a still larger and more diversified stock.

Some days ago, in passing

Mr. S. Newhall's Los Gatos Nurseries

In the Willows, I learned that he had sold about every fruit tree he had on the market, and much of his ornamental stock. The work of replanting his grounds made vacant by this spring's sales had already been done, and there was quite a force of men and teams engaged in grading and preparing a new purchase of choice land, fronting the road to San Jose, and nearer to town than any of his other nurseries. No doubt most or all of this new plantation has already been set with grafts and scions. Mr. N. is a practical safe-going business man, and always keeps his business well in hand. He keeps steadily extending his business as the wants of the country demand.

Santa Clara, March 29th. G. W. M.

Notes From Santa Barbara County.

EDITORS PRESS:—Having a little spare time I will while it away giving you a few notes of travel and observations in Santa Barbara county.

Leaving Santa Barbara on a bright, beautiful morning, such as only Southern California can boast of, we took up our line of march for Gaviota pass and Lompoc, via La Patera.

Two miles from Santa Barbara we came to Higby's orchard, which, though small, containing only 12 acres, is one of the finest in the county. The orchard consists principally of almonds, walnuts and plums, with a few each of the other temperate climate fruits, such as apples, pears, etc.; also a few oranges, lemons and other semi-tropical fruits. As the orchard is only seven years old, many of the trees have not yet come to bearing. Mr. Higby estimates that the orchard paid a profit of $33 per acre last year and will pay at least double that amount this year.

Three miles from Higby's we came to Henry Hewlet's place in La Patera valley, a fine farm with good orchard, vineyard, etc., and about a mile is Scull's ranch, another fine farm with good buildings, fine orchard, grounds handsomely laid out and ornamented with flowers and shrubbery.

Next among the noticeable places is that of J. E. Martin, a beautiful, cosy little homestead of 40 acres, well improved and tastefully arranged with orchard, ornamental trees, flowers, etc. One-half mile farther brings us to

The New Town of Golita,

Which boasts a store and postoffice, kept by Messrs. Heacock & Foster, also a blacksmith shop, a boot and shoe shop, meat market, a beautiful little church, a school house, and the inevitable Chinese wash house! One half mile from Golita we come to

Sexton's Santa Barbara Nursery.

Mr. Sexton makes no specialty, but cultivates all the temperate climate fruits, nut and ornamental trees; also orange, lemon, lime and palm trees, pot plants and hardy evergreen shrubbery, etc. His trees are all grown without irrigation, and look fine and thrifty. We were shown some eight-year-old orange and lemon trees grown without irrigation; the lemons were fruiting, and finer looking, thrifter trees we never saw. We saw also some very fine Pampas grass plumes of last year's growth. Mr. Sexton cultivates the Pampas grass largely for the plumes, which find a ready market at paying prices.

Resuming our journey we next pass Mr. Kellogg's place, one of the prettiest in the valley. Next we come to Birabent's hotel, where can be had accomodations of the very best for both man and beast. Next we halt at the ranch of W. N. Roberts, a fine farm containing 150 acres, fronting on Grand avenue; on the farm is a fine young orchard of 15 acres of all varieties, temperate climate and semi-tropical fruits. We were shown apples of the White Winter Pearmain variety, the finest fruit we ever saw, 52 of which were gathered from one tree, only three years old from the bud. On this farm is a surface flowing well, and an artesian well sixty feet deep, throwing a fine stream of water. Three acres were sold off this ranch lately at $300 per acre. Adjoining Roberts' ranch is the ranch of S. P. Stow, one among the finest in the county, containing an orchard of 150 acres, principally almonds and walnuts. The buildings are handsome and the improvements of the best and most substantial kind. Next we come to

Glen Annie,

The home ranch of Col. W. W. Hollister, containing 4,600 acres of choice land, of which about 300 acres are devoted to the different varieties of temperate climate fruits. In this large orchard are about 30,000 almond trees, set 20 feet apart; 2,000 English walnut, set 40 feet apart; 1,200 orange trees, 2,000 lemon, 800 apple, 200 peach, apricot and nectarine trees, 200 cherry, 100 persimmon, 600 lime, and 50 pear and quince trees. There are 700 acres of grain sown. A large portion of the ranch is in grass, which furnishes pasturage for 50 horses, 200 head of cattle and 3,000 sheep; the buildings are very fine, and all the improvements of the very best. The proprietor has expended money most liberally in fitting up and improving Glen Annie, which is richly entitled to be called a model farm.

Col. Hollister, one of the oldest American residents of Santa Barbara county, possessed of an ample fortune, noted for his extreme liberality and public spirit, has done more, perhaps, to build up Santa Barbara and develop the county than any other resident thereof.

Leaving Glen Annie we come next to

Ellwood,

A fine ranch, the property of Ellwood Cooper, Esq., principal of the Santa Barbara college. Mr. Cooper has gone extensively into the cultivation of the blue gum, of which he has large forests planted. He has also a large fruit and nut orchard. Finding no one but a heathen Chinee on the place we were unable to gather any reliable information of acreage, etc., but the place has been so often described in the various newspapers of the county that I presume it is perfectly familiar to most of the readers of the RURAL. Ellwood is the last ranch in La Patera. There are a great many fine ranches in La Patera which we have not mentioned; in fact all the ranches are fine. The soil cannot be surpassed for fertility, the location and scenery are beautiful, and the climate all that could be desired.

From La Patera to Gaviota Pass

the country is sparsely settled, the ranches being large and devoted to stock raising. At the mouth or coast entrance of the pass is the Gaviota wharf, from which the grain, wool, etc., of the upper Santa Inez is shipped. The Gaviota pass is one of the wildest of mountain gorges, through which a small creek winds its way to the ocean. Through this pass a road, not passable at all times, has been cut. We will not attempt a description of the pass, but pass on to

Las Cruces,

A picturesque little hamlet in the mountains at the head of Gaviota pass, where we find a hotel and postoffice, store and saloon. We were much puzzled to know from whence came the support of these institutions, but learned on inquiry that the mountains were full of sheep and cattle men, who came here for their mail and groceries. From Las Cruces a ride of seven miles brought us to the

San Julian Ranch,

A large stock ranch owned by Col. Hollister and the Messrs. Dibblee. The San Julian and other adjoining ranches owned by these gentlemen contain about 100,000 acres of choice grazing lands. There are now about 50,000 sheep on this ranch. The appliances for handling sheep, shearing, dipping, packing wool, etc., are all of modern pattern, designed on most approved labor-saving principles, being probably as perfect as any in the State. From San Julian a ride of 11 miles brought us to

Lompoc,

A new settlement established less than two years ago on the colonization plan. The lands divided up into lots from 30 acres up were sold at public auction to the highest bidder. Lompoc valley, which is situated at the mouth of the Santa Inez river, is a most beautiful valley some 10 miles in length by three or four miles in width; it was formerly owned by Messrs. Hollister and Dibblee and used by them as a stock ranch. The quality of the soil is of the very best; in fact we never saw so large a body of such good land together. Owing to the fact of the settlement having been established so late last year and the unusual dryness of the season but little farming was done, but the little that was done fully justified by its results the high opinion entertained by its friends of the extreme fertility of the valley.

We found the farmers all at work, plowing and planting. From our observations, we estimate the acreage of grain, wheat and barley at from 8,000 to 10,000 acres. There will probably be from 4,000 to 6,000 acres of potatoes and corn planted. A substantial wharf is being built at the mouth of the river, from which the farmers will ship their surplus grain, etc. We predict that said wharf will be a paying institution, as the amount of business it will have will be immense.

We were hospitably entertained by Major William Jackson, an old patron of the RURAL. The major has a very fine farm; also, a small but well managed dairy. We found him sanguine in the belief that Lompoc is destined, at no distant day, to rank first among the valleys of Southern California, in which opinion we fully concur. Situated near the head of the valley is the city of Lompoc, which, judging by the prices we were told town lots brought at the public sale last fall, is destined to become a dangerous rival to San Francisco.

The city contains at present about 25 or 30 buildings, large and small, one hotel, a printing office, a fine church and school house, four or five stores, two livery stables, two blacksmith shops, a harness shop, a postoffice, cigar store and news depot combined, a boot and shoe shop, a barber shop, besides several other public institutions. With the houses already built, those building and those that will be built in the future, Lompoc is a large and important city. The Lompoc people are all local optionists, and no liquor saloon will be tolerated in the settlement. We called on Mr. Broughton, publisher of the Lompoc *Record*, a valuable weekly paper published here. We found him a very courteous gentleman, ready to give us all the assistance and information we required. After spending three very pleasant days in Lompoc, we mounted our steed and started for La Graciosa, distant 16 miles. This ride will be described in our next letter. McA.

STOCK BREEDERS.

The Cattle Breeders' Society and its Sale of Short Horns.

EDITORS PRESS:—I submit the following extracts from your columns concerning the late meeting of the Cattle Breeders' Association and the coming sale:

"Great sale of thoroughbred Short Horn cattle * * * to be sold * * * under the auspices of the Short Horn Breeders' Association of California. * * * We would say to the public, and especially to those wanting young bulls to *improve* their herds, that no better opportunity will be offered than at this sale for parties wishing to purchase, as a large number of the principal breeders of the State have each contributed a few head of CHOICE animals to be sold. (Signed.) Cyrus Jones, President; Robert Ashburner, Secretary."—Advertisement in RURAL PRESS.

"Robert Ashburner advanced the point that some of the pedigrees in the catalogue of sale *are defective*, and that he would not allow his name to be used in connection with the sale *unless public explanation is made* at the sale of any *doubtful points in pedigrees*.

"Col. Younger stated that the pedigrees in the catalogues were *vouched* for *only* by the *individuals offering* the *animal*, and the owner would be called upon to *answer any objection* which *might* arise."—Extract RURAL PRESS report Stock Breeders' meeting, April 8th, 1876.

"The sale is undertaken in the interest of promoting the appreciation of fine stock among the cattle breeders of the coast. We learned from the frank expression of sentiment of members that the sale will be an honest and open transfer of property. THE HONOR OF THE SOCIETY DEPENDS UPON UPRIGHT DEALING."—Editorial note, RURAL PRESS, April 8th, 1876.

It is a well known fact, Messrs. Editors, that there are but few persons on this coast who know anything whatever about pedigrees, and even to some of those who do own and appreciate pedigreed cattle sufficiently to have them recorded, a controversy as to the merits or demerits of the pedigrees of their stock would be about as intelligible as a treatise thereon written in the Hindoo dialect.

Now, if those who are personally and (what is more to the purpose,) pecuniarily interested in the matter do not all understand and appreciate the value of a correct pedigree, is it not more than likely that individuals who never saw or heard of a pedigree will be utterly confounded and bewildered by such explanations as proposed by Mr. Ashburner? And is it probable that any but breeders of thoroughbreds will be able to understand the answers to "any objections which might arise," as proposed by Col. Younger?

The object of the society, according to its constitution, is " to promote and perfect a more substantial understanding with the farmers at large, and to encourage the further improvement, breeding and dissemination of our cattle." I cannot see, gentlemen of the society, how you are going to promote and perfect a more substantial understanding with the farmers at large, nor to encourage the further improvement, breeding and dissemination of your cattle by selling to the said farmers either spurious, defective, or even doubtful pedigrees.

The purpose of inaugurating these annual sales was not to sell to other breeders of thoroughbreds, but in order, as the RURAL says, "to promote the appreciation of fine stock among the cattle breeders of the coast, and the society's advertisement above quoted from calls directly upon those wanting young bulls to improve their herds to come forward and purchase these choice animals to be sold under the auspices of the association."

In very plain and unmistakable language the Stock Breeders' Association, through its officers, calls upon cattle breeders and farmers generally to come forward and purchase thoroughbred Short-Horns, and issues a catalogue which purports to give correct and reliable pedigrees. Scarcely, however, has it done this, when one of the said officers whose name is affixed to the catalogue, comes forward and honestly and fearlessly states that some of the pedigrees as printed are defective and demands a public explanation thereof at the time of sale.

One of the intending sellers endeavors to get around this "hitch" by stating that it was not intended to make the society responsible for what it published, but the individual offering the animal for sale must vouch for its pedigree, and may be called upon to "answer any objections which might arise."

The question is, who is to raise these objections? The individual members of the society, and, in fact, most of the breeders of thoroughbred cattle, know which are the defective pedigrees, and will be careful not to purchase them; but, will they, *pro bono publico*, care to make themselves obnoxious to other breeders, less honest than themselves, or desire to spoil the sale by "raising objections" and bringing on a public controversy at said sale? On the other hand the "farmers at large" know nothing about pedigrees, and it is therefore presumable that not only will they refrain from "raising objections," but they will be drawn into purchasing those choice (?) young bulls with defective pedigres to improve their herds.

The question raised by Mr. Ashburner was certainly a very grave one, not only for the cattle breeders and farmers at large, but for the interest of the society. I cannot see how the latter can shirk responsibility after issuing the catalogues in its own name and specifying that the sale takes place under its auspices.

I presume that the society considers itself a representative body of the stock breeders of this State. If such be the case it should keep in mind the fact that its actions and influence should and will carry great weight in the community, unless its interests are, as in the present instance, to be subordinated to those of its individual members.

My connection with the society ceased some

time ago, but I consider it the right of every breeder of thoroughbred and pedigreed cattle to criticise the actions of a body which lays claim to such a name as the "California State Association of Thoroughbred Cattle Breeders," and call it to account for every misdeed it may commit.

In my humble opinion the cattle with defective pedigrees should never have been allowed to be entered under the society's advertisement, but as this *mistake* has already been made I do not see but what it is the society's DUTY either to expunge them or at least make the explanation (allowing no counter-explanations,) demanded by Mr. Ashburner.

"The honor of the society," gentlemen, "depends upon upright dealing."

WILFRED PAGE.

The Defective Pedigrees.

EDITORS PRESS:—Will you kindly allow me to more fully explain what I stated in reference to defective pedigrees being inserted in the sale catalogue of Short Horns to be sold at Sacramento on April 20th, than what is done in your report of our Breeders' meeting on the 8th inst. I refer to your paragraph on pedigrees in said report, in which I am made to say that "some of the pedigrees in the catalogue of sale are defective." I not only named the animals whose pedigrees *are* defective, but also stated that I considered the association *responsible* for all errors or mistakes in the pedigree of any animal to be sold "under the auspices of the Short Horn Breeders' Association of California." I beg to say that I still hold to that view, notwithstanding Mr. Younger's assertion "that the pedigrees in the catalogue were vouched for *only* by the individual offering the animal, and the owner would be called upon to answer any objection that might arise." Who, I wonder, is to call upon him, or who is likely to make any objection to pedigrees?

I do not say there is *no one* likely to buy who would be likely to discover any error in pedigree unaided; but I venture to assert that at least nine out of ten of the buyers of Short Horns in this State are entirely uninformed as to the correctness or incorrectness of pedigrees.

Now, I would repeat the question I put to the meeting, viz., "What is the association for if it is not to protect against error or fraud in pedigrees, and inform the uninitiated or those who may be seeking information?" It is very natural to suppose that a beginner, or one intending to begin breeding Short Horns, would assume that he could buy in all confidence at a public sale held under the auspices of an association of breeders. Therefore I felt it to be the duty of some one to call the attention of the meeting to some facts connected with the pedigrees of the three animals I named, and if it will not occupy too much of your space I will briefly state (as I said at the meeting) all that is necessary to be explained to the public in regard to said pedigrees. I refer to numbers 8 and 29 in the bulls, and number 6 in the cows and heifers. The three animals being all of one family, it will only be necessary to quote that part of the pedigree that contains the defect and the error:

Kate Hughes, by Albert (Albert by Imp. John O'Gaunt (11,621)—out of Martha Talbot); Lucky Lass, by Wellington, 2,366—certificate by Prince Albert 24, 857; Crazy Jane, by John Randolph, 603; Pink, by Goldfinder, 2,066; ——— by Matchem, 2,283.

Imported John O'Gaunt (11,621) the sire of Albert, was a well bred bull owned by J. P. Fisher & Co., Danville, Ky.; but where, O where! is the pedigree of Albert's dam, Martha Talbot? To cure the *defect* we must have her *pedigree*—"said to be a thoroughbred cow" will not do it. We must have the proof positive through the only source whence it can come—a *herd book record*. The "error" can be remedied by a very simple process of amputation—by cutting off the bottom cross "—— by Mathem, 2,283," which is an erroneous addition.

Whilst on the subject of pedigrees I wish to call attention to bull No. 10 in the catalogue, whose pedigree is not complete; leaving off as it does at Countess 1st, by Son of Comet, 991. It ought to be continued through that rare old Colling foundation as follows: Imported Princess, by Lancaster (360); Golden Pippin, by North Star (459); by Favorite (252); by Favorite (252); by Favorite (252); by Hubback (319).

These Errors will not Spoil the Sale.

There will, no doubt, be some croakers who will be apt to say that this sort of thing will spoil the sale. On the contrary, it ought to help to establish the good faith of the community in the *bona fide* character of the sale of "thoroughbred Short Horn cattle, to be held under the auspices of the association." The character of the coming sale and the principles upon which it is conducted will be a precedent for all sales hereafter, held under the auspices of the association.

With my name upon the catalogue as secretary of the association, it may be thought by some that it was my business to get out the catalogue; but during my absence that important duty was left entirely with the President, who tells the meeting that "the pedigree of each animal is printed in the catalogue just as I received it, without comment."

My connection with the association dates from its commencement, and I am not the one to go out of my own accord, just because there is "trouble in the camp." As long as my connection with it lasts, I shall consider it a part of my duty to help to bring to light and expose fraud, and at the same time help to correct any unintentional errors that may be discovered in pedigrees; whilst it will always give me pleasure to give any information in my power to those who are seeking it through the Association of Breeders of Thoroughbred Cattle.

ROBT. ASHBURNER,
Sec'y of the Association.

HORTICULTURE.

Orange Culture in Lower California.

The State Department at Washington a few months ago issued a circular, addressed to all the United States Consuls in foreign ports wherever tropical fruits are cultivated, requesting them to report upon the mode, conditions and extent of culture within the districts under their observations. This circular was issued at the instance of Senator Sargent, with a view of obtaining information that might be turned to practical account in various portions of California. The first response is now at hand. It comes from Edward Gillespie, our Consul at San Jose, Lower California.

Mr. Gillespie writes as follows: First let me state that a considerable difference is found in the orange fruit grown in different localities in this district; and I attribute this more to a difference of soil than of climate, for, although the temperature changes as you ascend the Sierra, yet, as far up as gardens are found, it does not fall to the freezing point. The rainy season here occurs during the summer months, and therefore the leaf or bud are not liable to exposure to cold storms. The leaf has its time to fall, but the incessant production of the new preserves the tree in its perpetual green. Anything that blights or injures the leaf destroys or deteriorates the fruit, and, therefore, in a climate like that of San Diego artificial means of protection must be resorted to, or sheltered spots selected for the groves. The fog from the sea is also injurious. A gentleman living near the beach at Cape San Lucas had some apparently fine trees in his garden which bore very little fruit, and that small and acid, and always on the leeward side of the sea breeze. He was an Englishman, and had seen wall fruit, and this reminded him of an idea; so he built at little expense a fence of long poles three feet apart, interwoven with brush (what they call here a *cerco enramado*) some fifteen feet high, hiding its deformities by wild running vines. After that, all the lower branches every year were filled with good fruit.

Soil—Mode of Planting.

Now, as to the soil, there is no question that the rich alluvial of the bottom lands or mould of the valleys is best for the production of fruit, though manuring may be a good substitute elsewhere. In a mixture of soil and gravel, or even in rocky soil, however, the tree thrives equally well. In fact, if you plant your tree in a crevice of rock where there is sufficient soil below for the roots to expand, it is at home, but the fruit is not so sweet, so full of juice, or so large. It is claimed for it, however, that it ripens earlier.

The earth about the roots should be kept moist, but it is not necessary to deluge the ground near the trunk, and least of all with cold well water or water impregnated with minerals. The practice here is to irrigate every eight days.

Some of those who have the finest trees and best fruit here give their advice decidedly against ever transplanting the orange tree, and I have examined several trees which seem to warrant the assertion. The experiment is recommended of planting the seeds four or five in a hill, with the hills 25 feet apart each way, and rooting out afterwards all but one plant, the best in each. The seed is planted here from November to January, as soon as the fruit is ripe and the seed dry. The tree is transplanted two years afterwards in the last of January or the first of February, during the full of the moon. The orange tree is never grafted here now. All trials have resulted in a dwarfed body and inferior and diminished yield of fruit.

Pruning and Care.

There is a difference of opinion as to pruning. The general conviction is that the lower limbs should not be cut off more than six feet from the ground. The sprouts below this should be removed immediately when they appear, for they thrive with wonderful vigor upon the tree and roots at the expense of the vitality of the fruit and branches above. All superfluous limbs should be cut off and shortened in the spring. It would be commonplace to advise against allowing dead or dying limbs to remain on the tree. I should say the same regarding any limbs that appear sickly, producing a small and imperfect leaf. But the symmetry of the tree must be preserved as far as possible, not crowded by too much growth of wood, and thorns kept down with constant care. A fruit grower requires no advice of this kind, and understands that the orange is a delicate tree and cannot thrive under neglect. To produce superior fruit it requires attention and cleanliness; and without this the tree, as it advances in age, becomes diseased or loses its vigor.

The time for thorough pruning and shortening the limbs here is the last of January. No mulching is done here or root-pruning; and the practice among our nurserymen of thinning out the fruit when overloaded is unwisely neglected.

Gathering the Fruit.

The orange tree, if taken care of, lives to a great age. It begins to bear at six years, and, on attaining its growth will give from 1,500 to 2,500 oranges in a season. The tree here blossoms in March, and bears from the last of September to December.

Too much care cannot be taken in gathering the fruit, which, if the thorn has been properly clipped, can be reached and cut off by a dextrous hand without even squeezing. Much harm is done by allowing it to be bruised.

Of all things, it must not be plucked; the stem should be cut off close to the fruit.

With these precautions it will *never rot*. Laid upon a platform of cane and ventilated from all sides, it will dry up in time, but not decay.

Effect of Rain.

The effect of rain upon the trees and fruit during the months when rain is to be expected here, (July to the 15th of October) is beneficial, cleaning the leaf and giving it respiration: but what the result further north would be of the cold storms upon the stem, the leaf and the blossom, I leave for others to determine. We have in this country, however, (years apart) during the season of rain, *chubascos*—hurricanes of wind and rain—which precipitate all the fruit to the ground and make sad havoc with the trees. Oranges are worth here, piled under the tree, about $3 50 per thousand; and packed in crates, with expense of freight to the beach and placed on board, about $5 per thousand. But, as very little attention is given to the delicate handling of this juicy fruit or to wrapping in paper or packing in boxes, the loss from rotting is a large percentage; so that after paying freight to San Francisco, (five dollars,) together with duties and other heavy expenses upon the gross amount shipped, the result is not always encouraging.

Of other tropical productions, such as the pine apple, sugar cane, cocoanut, date, etc., it is not worth while here to speak. They are not adapted to the climate of Upper California. Cotton, indigo, rice, tobacco and coffee grow in perfection here. The first two are indigenous.

THE VINEYARD.

Cost of Drying Floors.

EDITORS PRESS:—In a late copy of the PRESS, Mr. Sanders has the following concerning making drying floors:

Those who live near a natural supply of rock, of any kind except cobble stones, have the best possible material of which to make them. Lay the stone from one and one-half to two feet thick, making a smooth surfaced floor on the top. Use cement or lime freely in laying the floor to make all adhere together, to be as much as possible like a single stone of the size and thickness of the entire floor. Then paint the surface black, the more perfectly to absorb the rays of heat, and you have a raisin dryer that will do good service every year, and that will last a lifetime.

Let us figure on the cost of such a drying floor. Take the least thickness—18 inches—of the horizontal stone wall recommended, and we would have 13,000 cubic yards of rock in a curing floor for 40 acres of grapes. The cost of quarrying and putting in place the rock carefully so as to make the "top like a single stone of size and thickness of the entire floor" would not be less than $3 per yard—$39,000. Then the excavation for such a wall floor, 18 inches deep, 13,000 cubic yards at 30 cents per yard would amount to $4,900. Total $53,900.

If the rock must be moved by wagon, it will cost 50 cents per yard additional for every mile of hauling, and the "cement or lime," and "painting the floor black" would cost considerable. The above estimate is based on prices received by contractors for similar work. The other floor recommended by Mr. Sanders "of dobies," could be made for less money, but it would not be so durable, and probably cost considerable for annual repairs. G.

Los Angeles, Cal.

[What does Mr. Sanders think of this estimate?—EDS. PRESS.]

Make Both Hands Work.

EDITORS PRESS:—This is what I would say to those who have vines to prune. You know it is generally the custom to take hold of a vine with the left hand, and cut it off by means of shears or knife in the right, then drop the vine on the ground, to be picked up afterwards. Now the plan which I have followed for several years is to hold the vines in the left hand until I get a handful, then throw them into a pile, so as to put at least four hills into one pile. My neighbors have nearly all adopted my plan, and are satisfied that they make a great saving in the time of picking them up. It will perhaps be a little awkward at first, but a little practice will make it very easy, and I will guarantee that if you try it one season you will not forsake it the next. When you get used to it, you cannot see much difference in the number of vines pruned in a day, and then they are all piled when night comes. J. B.

Missouri Flat, Cal.

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Picking off Feathers.

M. EYRE, JR.:—What is the cause and remedy, if any, where chickens pick the feathers off each other? Some of my fowls are looking miserable from that cause, and not only mine but others complain of the same thing. A hen will stand and pick the feathers from the neck of a rooster, and he will stand and appear to like it, and the same with each other. I noticed it more when they were penned in during stormy weather; not so much since they can get out and run. It is the first time I have been troubled in that way.

CHARLES LEE.

Forest City, March 27th.

The habit is acquired in various ways, generally when confined in close quarters without occupation. After a feather is plucked and swallowed by accident the taste is acquired, especially during moult, when feathers are filled with blood. The wattles of the cock may be torn or otherwise caused to bleed, and the hens picking at the blood on the feathers soon acquire the habit of plucking and eating the feathers.

Remedy—Give them something to engage their attention. Tie up a bundle of grain or hay and place in the pen to give them exercise in picking at it. Anoint the place on the cock where they pick at the feathers with coal tar, or lard and carbolic powder, or any nauseous compound. My remedy is to place a hen with this habit in a separate pen with a pugnacious game hen, and the latter very soon cures her of any desire to eat feathers.

Which Breed for Profit?

What breeder of thoroughbred fowls in the country does not have the question asked a dozen, and perhaps a hundred times in the course of the year—"which breed shall I keep for profit?" In many instances this is a difficult question to give a proper and sensible reply to—but under consideration of certain circumstances and facts, we will give one solution of the question asked. Taking it for granted, that before making your choice you have posted yourself on the different varieties, their excellences, as well as their drawbacks, you will arrive at the conclusion, that for profit you wish *egg-producers* more than you do fowls suited for market purposes, and that it is universally admitted that the small breeds far excel the larger varieties in this essential point. Of the small breeds, after years of experience, I place the *Leghorns* at the head of the list, and the White No. 1. I have bred them in all ways, and under all circumstances; in close confinement, in moderate sized yards, and at liberty on the farm, and with proper care I find them to do equally well. By actual experiment, I find them fully fifty per cent. more profitable; that is, on twenty per cent. less feed, they produced *in value*, thirty per cent. more eggs; and this trial was at a time when I had not less than twenty varieties in my yard (that covered many acres) and was made from an entirely unbiased standpoint, and taking several years in succession, the result was the same. From one yard of 16 White Leghorns, pullets and hens in their first year, from March 1st to September 1st, I received 1,696 eggs, an average of 106 eggs to each hen, for six months.

The eggs were sold at prices ranging from 25 cents to 75 cents per dozen, and realized over $75, at an expense of less than $10 for feed. They were confined in a barn cellar 15x20 feet, and their only "run" was a small area of 20x3 feet between the barn and the yard fence. The feed consisted of scraps and refuse from the table, plenty of green food from the garden and fresh water, with whole wheat as a substantial. No chicks were raised, and besides the eggs sold as above, there were used the quantity usually needed in a small family, of which no account was taken. Actual experiments under other circumstances show the same favorable results—trials having been made with both larger and smaller flocks. Were I not trespassing on your space I might give a dozen experiments of a similar kind, with items of debit and credit in full.

Another material point to the fancier in favor of White Leghorns is, that if proper care is exercised in mating for breeding, no one variety will produce so large a percentage of saleable birds, and at such highly remunerative prices.—*F. F. J. in Fancier's Journal.*

Enterites.

M. EYRE, JR.:—In my communication to the RURAL PRESS I stated that my chicks were comparatively healthy. Well, they are so, compared with some of my neighbors'. Nevertheless, there is one thing that troubles me; occasionally a pullet will draw her head in and mope around, usually eat more or less when they are fed. They will stand around in this way for weeks, and will die after awhile. I have been in the habit of cutting their heads off and fertilizing trees with them, but I kept one (a full blooded Hindan) until she died, just to see if she would die. It occur at all times of the year, but perhaps a little worse in the wet season. Will you please tell me what is the matter, and the cause of the trouble, and the remedy. They have clean and dry quarters. It has not been wet but a day or two at a time, outside this winter.

S. WHITMORE.

San Diego, March 24th, 1876.

The disease I judge to be the same described in the PRESS of February 12th, 1876, viz, *enterites*. Alum water is the best remedy. Both remedy and prevention of disease are fully described in the article referred to, which treats of roup and also of this disease mentioned by Mr. Whitmore.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

Secret Societies.

Rev. Mr. Grosh, in a foot note to page 19 of his "Mentor in the Granges," says: "Societies *really* secret are those whose officers and members, places and times of meeting, are unknown, and whose proceedings are kept concealed from the world, such as the *Vehmgericht* of Germany, which existed between the 9th and 17th centuries, but even its existence was concealed until the 13th century; the *Rosicrucians*, between the 14th and 17th century; the *Carbonari*, whose existence became known only in 1820; and the *Illuminati*, supposed to have been formed about 1776. The principles, aims, etc., of some of these are yet in obscurity. These, then, have been truly 'secret societies;' but Odd Fellows, Masons and others, so called, are at most mere affiliated bodies, meeting in private, as would any social party which desired freedom from intrusion. As well call churches, cabinets, senates, boards of directors, and families, 'secret churches,' 'secret families,' etc., because they hold private meetings, and have secrets."

Again, on page 22, under the head of "Early Christianity," he says: Religion itself, which derives its name from the fact that it *binds men together*, tends to the formation of such compacts between fellow-believers and fellow-worshippers, as well as between them and the Being worshipped; and the individual worship or communion is designed to be secret, while most churches have some secrets pertaining to the discipline of members, or correspondence with other churches. Jesus especially enjoined secrecy in progress, fasting and alms-giving, and some of his instructions to his disciples, if not of theirs to new converts, were given in secret. The persecution of the early churches in Judea, frequently required great privacy and precaution in meeting for worship. The Roman rulers testified that the early Christians met sometimes and ate a meal in common before daybreak—probably the communion meal. And it is undoubted that when Christianity spread abroad, pagan persecutions also required the early Christians to meet secretly for social worship. The immense caverns called "catacombs," under Rome, were the place of these worshipping assemblies of the Church of Rome. Here, with proper guards on the watch, they were comparatively safe; for, if disturbed, they could easily elude their pursuers in the darkness and intricate windings of the labyrinthine passages. And when mingling among the heathen crowds of the city above, they had signs of recognition known to the faithful only; among which was that of the cross, so capable of being made in a multitude of ways to escape observation and elude detection by the uninitiated.

We have some remains of this "unwritten langnage"—these signs and tokens—in the worship of the Roman Catholic church, says the Protestant Martineaux, in his "Rationale of Religious Enquiry." "When we ask the use of lights that burn during the mass, how can we fail to think of the secret worship of the early Christians assembled at the dead of night, in some vault beyond the eye of observation? When we wonder at the pantomimic character of its services, its long passages of gesticulation, are we not carried back to the times when the quick ear of the informer and persecutor lurked near, and devotion, finding words an unsafe vehicle of thought, invented the symbolic language, which could be read only by the initiated eye?"

Their secret signs and signals secured them from imposition on the one hand, and from detection by their persecutors on the other. And thus each church, whether a single household or many united, was what would now be called a "secret society;" that is, an organization based on great principles held in common, pledged to mutual aid and support, using secret signs for mutual recognition and secret symbols for instruction, and meeting in private for the exercise of their rites and ceremonies.

Business Association.—We would call attention again to the adjourned meeting of the stockholders of the Grangers' Business Association, which will be held in this city, at the corner of California and Davis streets, on Wednesday, April 19th, at 10 o'clock, A. M. There should be a full attendance of stockholders.

Progressing.—Work in grading on the Grange warehouse grounds is in progress, and specifications for construction of the wharf are being prepared to advertise for proposals of contractors.—*Contra Costa Gazette.*

The Ancient and Modern Grange.

Solomon said there was nothing new under the sun. In very ancient days there lived a princess by the name of Ceres, who had an only daughter by the name of Proserpine. While Proserpine and her maids were gathering flowers in the meadows of Sicily, Pluto, the king of Hades, in a flaming chariot drawn by fiery steeds, drove up, threw his arms around the beautiful Proserpine and carried her away. When Ceres heard the sad news, she lit a torch at the burning crater of Mount Etna and wandered from place to place in search of her daughter. Coming to Eleusis, in Attica, and finding the country afflicted with a famine, she invented the raising of corn as a remedy for the evil. She not only taught them the use of corn, but instructed them in the principles of propriety, charity, civility and humanity, and became the patron saint of the Athenians, who built a magnificent temple and dedicated it to her honor—Ceres Eleusina.

In course of time she established what was called the festival of the ceremonies of the mysteries. She invented secret signs and passwords, and appointed officers of the most meritorious persons for the administration of the secrets of the order. She received men, women and minors—some very young. It was a death penalty, by the law, for a member to divulge the secret mysteries of the order. At the great feast of Ceres Eleusina a Roman officer said he counted 30,000 in the grand procession, some carrying torches representing Ceres in search of her daughter, others carrying baskets representing the basket in which Proserpine was placing the flowers when Pluto seized and carried her off. This order is said to have lasted near 300 years, when an emperor of Romo ordered it to be abolished because of its becoming mixed up with the pagan worship.

But, Messrs. Editors, it was not Pluto, nor was it Jupiter, the father of Proserpine, but a swain from Merced City. He did not come in a fiery chariot, but he came in a car drawn by a fiery iron horse, to the Rustic Grange at Lathrop, and carried away our beautiful little Ceres. And that is not all—his brother (an engineer at the round house at Fresno station) in like manner carried away our Lady Assistant Steward. It is too bad. Is there no way to put a stop to such conduct? The Yankee would say, "I guess not." Well, we don't care; for we have lots of beautiful damsels left, and our Granger mothers will soon be along with a troop. God bless the Grangers!

Multum in Parvo.

San Joaquin Bridge, Feb. 29th, 1876.

From the Granges.

Rio Vista Plowing Match.

Editors Press:—The plowing match, which has been announced through your paper to come off at this place, took place on the 29th and 30th ultimo. The following report from the judges is forwarded you by direction of Rio Vista Grange:

To the Officers and Members of Rio Vista Grange, No. 159:

The undersigned having been appointed to practically test and judge of the merits of the different gang plows entered in competition at the plowing match, held on the 29th and 30th days of March, at Rio Vista, Report, That of the 14 Gang Plows presented for trial we find and award as follows—

First Premium, To Hill's "Eureka" gang plow.

Second Premium, To Mattison & Williamson's gang plow, "American Chief."

Thomas Menzies, J. H. Hamilton, Robt. Gibson, } Judges.

Rio Vista, Cal., March 31st.

Los Angeles Grange.

Editors Press:—As our Secretary has neglected to furnish you with a list of the officers of Pomona Grange, No. 1, I will take the liberty of repairing the neglect. Pomona Grange, No. 1, of Los Angeles county, was organized June 14th, 1875, by Worthy Master Hamilton of the State Grange, and the following officers were elected to serve one year: Edward Evey, M.; J. Q. A. Stanley, O.; J. E McComas, L.; M. Thomas, C.; E. B. Grandin, T.; T. C. Alexander, S.; Miss M. L. Cunningham, L. A. S.; Mrs. Louisa Garey, Pomona. (The other lady officers were omitted.) George C. Gibbs, Sec'y; R. J. Floyd, C.; P. C. Tonner, G. K.

I am sorry to say that Pomona Grange with us, so far, has been a failure. Since its organization there has rarely been a quorum of its members present at any meeting, and in fact there is so little interest taken in, and so much opposition to the fifth degree, that I do not think Pomona Granges will be a success. The Patrons generally are opposed to the creating of higher degrees, and thereby making exclusive bodies in the Order and entailing official capacity on past officers. The general sentiment among the Patrons of this district is that the fourth degree should be the highest used in the Order, and that any member of the fourth degree in good standing should be permitted to be present if he or she desired, in any body of P. of H. in session.

I have expressed my views on this subject more particularly, as there is a strong feeling amongst the members of Pomona Grange, to surrender our charter and go back to our County Council.

I am sorry to say that the Grange movement with us, at this time, is at a very low ebb; many causes combine to produce the lack of interest which now seems to paralyze all our movements. Many entered the Grange with the belief that they would realize immediate pecuniary benefits by the connection, others thinking they would be able to make use of Grange to carry out private schemes, and when such expectations have proven a failure, many have dropped the Grange in disgust. In many instances one of the principal features of the Grange has been overlooked and neglected; I refer to the social feature, the harvest feast, the picnic and other social gatherings, where we can meet together and become better acquainted, and find out the good qualities of our neighbors, and try to act from principle; in this way we shall learn to appreciate the Grange, and labor for its success.

I have been in Los Angeles 23 years, and this is the finest season I ever saw. New hay is now in the market, and the prospect for crops of all kinds is superb. J. Q. A. Stanley,

Sec'y Los Angeles Grange.

Los Angeles, Mar. 24th, 1876.

Modoc Grange.

Editors Press:—Having learned that your paper was recognized by the P. of H. as being a periodical calculated to further the best interests of our State and coast, I will give a few items in regard to Modoc Grange.

Modoc Grange was organized near Willow ranch, April 20th, 1875, with 33 members. Since that date there has been an increase of nine, making 42 at present. The officers for the present year are as follows: Master, L. E. Henderson; O.. S. A. Hamersly; L., L. W. Hughs; S., F. Vincent; A. S., W. A. Henderson; C., J. T. Crawford; T., J. A. Glidden; Sec'y, A. B. Crawford; G. K., M. Wade; Ceres, Miss M. Hazelton; Pomona, Mrs. M. Glidden; Flora, Miss M. Cloud; L. A. S., Mrs. Lydia Henderson; elected December 18th and installed January 29th. C. L. Sullivan has been appointed District Deputy for this county, there being but the one Grange in this county as yet. The Grange has commenced vigorous work on a hall, to be built about four miles south of the State line, on the east side of Goose lake, near the center of the valley. The hall is to be a two story building, 24 by 40 feet. The lumber is on the ground, and the hall is expected to be ready for use by the first or middle of May. A. B. C.

Willow Ranch, March 4th, 1876.

Healdsburg Business Association.

Editors Press: The board of Stockholders of the Grangers' Business Association of Healdsburg held an annual meeting in Grange hall, on Saturday, April 1st, at 10 o'clock A. M., at which time an election was held and resulted in the choice of A. J. Gordon, Aaron Hassett, W. N. Gladden, Charles Alexander, W. T. Allen, I. N. Stapp, C. M. Bosworth, E. H. Barnes and G. H. Jacobs as Directors for the Association for the ensuing year.

Reports of the Secretary and Treasurer were presented, showing the cash receipts and disbursements for the past year; also a general synopsis of business of the building committee and the general manager—all being very satisfactory to the stockholders.

On motion, a vote of thanks was tendered, unanimously, to the Board of Directors, for the very able and satisfactory manner in which the business of the corporation has been conducted for the past year. There was a full attendance.

At a recess in the proceedings abundant refreshments were served. W. N. Gladden,

Secretary.

To Correspondents.

Persons writing to the office of the Secretary of the State Grange will please observe the following rules: 1st. Attach your names to your communications. 2d. Give your official positions in your Granges, if you have any; if you are only *big privates*, say so, for communications from them will receive the same consideration as those coming from Masters or Secretaries. 3d. Give the name and number of your Grange. 4th. Give your postoffice address—don't forget that; it enables the Secretary to know *where* to send an answer—even should you say you live *on a hill, across the slough, in a horn;* anything is better than to compel the Secretary to look over 270 Granges, examine the names of 710 Masters, Secretaries and Treasurers to know who you are, what you are and where you live. There are several letters in my drawer unanswered, because some have no signature and others no postoffice address.

Will correspondent from Big Dry creek give his name? Will J. T. Hart and C. T. Strong give their P. O. Address? Amos Adams.

Secretary of the State Grange.

A National Grange Temple.—The National Secretary, O. H. Kelley, says that the Patrons have gone to work in earnest to raise funds for the purpose of building a National Grange Temple at headquarters, in Louisville, Kentucky. We believe the plan is to raise the means for building the same by private contributions from Patrons, without in any way drawing from the general funds of the Order. To this end, according to Bro. Kelley, the new "Degree of the Golden Sheaf" has been instituted, which can be taken by any member of the Order who will contribute to the extent of one dollar or more for the building fund. We do not infer, however, that this is a degree recognized at all by the Order, but simply a kind of a building association for the purpose indicated.

Crop Notes.

Through the courtesy of C. J. Cressey, Vice-President of the Grangers' bank, we are able to give our readers the information concerning crops which he gained from conversation with directors of the bank who attended the monthly meeting of Wednesday:

C. S. Abbott, of Salinas, reports crop prospects the best ever seen in that valley.

F. J. Woodward, of Stockton, says the crop outlook in the San Joaquin valley was never better.

A. D. Logan, Princeton, Colusa county, reports one-third more than the usual acreage in grain, and the yield bids fair to be double that of any former year.

J. C. Merryfield and D. C. Hale, of Solano, pronounce crop prospects never better.

Thomas McConnold, Sacramento county, says the outlook was never better.

Thus continues the story of good crops to crown the farmers' labors.

In Memoriam.

The following action has been taken by Liberty Grange, No, 69, of Acampo, San Joaquin county.

Whereas, It has pleased our Heavenly Master, in the dispensation of His providence, to remove from our circle our beloved sister, Lydia Woods, the wife of Brother Smith Woods, Therefore,

Resolved, That Liberty Grange, No. 69, has lost a respected member, our brother a loving wife, and her children an affectionate mother.

Resolved, That we deeply sympathize with all who have in her one who was near and dear by the ties of nature, feeling that we have lost one who was a sister in the highest sense, one who was conscientious and faithful in duties as a Christian, and one who answered the summons from our Heavenly Master cheerfully, and with rejoicing.

Resolved, That these resolutions be spread on the minutes of the Grange, and that a copy be sent to the family of the deceased and one to the Rural Press for publication.—[Committee: N. A. Knight, Mrs. H. J. Sebomp, Esther Tracy.

Franklin Grange, No. 147, Sacramento county, has adopted the following:

Whereas, The Great Master of the Universe, in his infinite wisdom, has removed from us our beloved brother G. M. Chapin; therefore,

Resolved, That in the death of Brother Chapin, Franklin Grange has lost an esteemed member and a true Patron, and the community a worthy citizen.

Resolved, That, as a token of our respect and esteem, we wear the usual badge of mourning 30 days.

Resolved, That a copy of these resolutions be placed on the minutes of the Grange, and a copy be sent to the relatives of the deceased and to the Pacific Rural Press, and *Sacramento Valley Agriculturist*, for publication.

Franklin Grange, No. 147, has adopted the following:

Whereas, Our All wise Father has taken from us our Worthy Steward elect, Brother R. M. Daniels, therefore, be it

Resolved, That we as a Grange, humbly bowing to the supreme will of Him "who doeth all things well," tender to the bereaved parents and sister our sincerest sympathies in their sad hour of affliction.

Resolved, That in the death of Brother Daniels, Franklin Grange has lost a respected and esteemed member, the community an honest and upright man, and the bereaved family a kind and affectionate son and brother.

Resolved, That as a mark of our love and esteem, we wear the usual badge of mourning 30 days, and that a copy of these resolutions be sent to the bereaved family, a copy be placed on the minutes of the Grange, and a copy be sent to the Pacific Rural Press and *Sacramento Valley Agriculturist* for publication.

No Patrons in Chile.—A Patron signing himself "No. 106, of Hayward," writes "there are no Patrons in Chile, at least none have made their appearance yet, and the writer remains solitary and alone."

Sales of Farming Lands.

Large Sales in Alameda County.

The Alameda *Independent* notes large sales of farming lands in Washington township. It says: More than 4,000 acres of land in different parts of our township have been sold to Mr. Davis, or the wealthy parties whom he represents, and the purchase money amounts to over a quarter of a million of dollars. A very good beginning for spring work in our neighborhood, most certainly. Mr. A. E. Davis is the Treasurer and also the President of our new narrow gauge railroad company. The whole projected line is from Dumbarton point to Santa Clara. The following names of settlers and schedule of acres and prices is of interest:

R. Threfall, surveys Nos. 136 and 137, ex-Mission San Jose, Washington township; $40,000.

P. Burt, 225 acres near Mayhew's Landing, $15,000.

D. C. Bane, surveys Nos. 120, 121, 124 and 125, ex-Mission San Jose, Washington township, $20,000.

Green Point Dairy and T. Co., 1,600 acres swamp and overflowed lands, $145,000.

J. Surman, 153⅓ acres in sections 11 to 14, Tp. 5 S., R. 2 W., $12,510.

R. R. Swain et al., 314½ acres in sections 11 to 14, Tp. 5, R. 2 W., $18,840.

A. Perrin, undivided one-half 287 9-10 acres in sections 12 and 13, T. 5 S., R. 1 W., $10,000.

E. B. Perrin, 701 acres in sections 12 and 13, T. 5 S., R. 1 W., $15,000.

R. Perrin, 287.7 acres in sections 12 and 13, T. 5 S., R. 1 W., $10,000.

Mendocino.

Mr. John Taylor, of Ukiah, will soon remove with his family to Santa Rosa to reside. He sold his ranch and sheep to the Ellege brothers recently for $16,000.

Napa.

Sales—Thos. Iscmonger to John Raper, 160 acres in Napa county; consideration, $400. John R. Garner to James J. McIntyre, lots 13 and 14 in block A, containing 146 acres, in Yount township; consideration, $1,200. Peter D. Bailey to Michael Scally, 333.90 acres, a portion of Suscol rancho; consideration, $12,000.—*Reporter.*

Agricultural Notes.

California.

COLUSA.

Cotton Planting.—*Sun*, April 8: Andrew Ruthland, being satisfied that his crop of cotton year before last would have been very profitable had it not been overflowed in the fall before it was all gathered, has made arrangements with W. B. Reed for the two to plant together 200 acres of cotton the present season. Mr. Reed is the young man who invented the revolving harrow, and several other valuable improvements on agricultural implements, and as the practical question of planting cotton came up, he went to work and built a seed planter. This is the most complete machine of the kind we have ever seen. It plants two rows at a time, makes the little furrows for the seeds, and leaves them all covered up. We hope that these young men will meet with the highest possible degree of success. If cotton can be profitably cultivated in this valley, it will make the very best possible crop to follow after wheat. If it can be entirely successful, our good land need never lay bare, as it must now to insure good wheat crops. Land, after a crop of cotton has been gathered, must be in the best possible order for wheat. The land they have selected is on the slough, about five miles northwest of Colusa.

The Grain Yield.—Editors Press:—The prospects for grain in Colusa county at this time of the year were never better than now. There are not facilities for storing and freighting the immense amounts of grain that will be raised this season. A few of the farmers have lost their entire crop and others a portion, by high water, and although it is a matter of great importance to them, yet it is a mere "drop in a bucket" in comparison to the large amounts of wheat that will be garnered up from the immense fields and farms of this great Sacramento river valley. The early barley is now headed out, and the wheat is mostly all knee high, but there are some pieces just coming out of the ground and some farmers yet sowing. Some will yet plow after the water goes off and plant broom corn, and after harvesting it, will sow it the same as summer fallow for next season's crop. People who have never visited the broad fertile valleys of Colusa county can make up their minds that they have not yet seen the whole world.—H. W. R.

EL DORADO.

Editors Press:—Your paper has been coming to this place for some time, and I have never yet seen an item concerning Clarksville in your columns. Many of our citizens seem to be interested in the paper and I deem it necessary that Clarksville should be mentioned. We do not boast of being a great agricultural district; our principal forte is dairying and stock raising. Our foothills are best adapted to that business. Those that are engaged in it seem to be prosperous and contented. Clarksville is the head and center of the district. Our vineyard folks find their business profitable, as they keep on improving and augmenting the size of their vineyards. They think their products more palatable and better suited for foreign markets than grape juice made in other portions of this State. The only impediment now in our way is the scarcity of water for irrigating purposes, but, from all appearances, that matter will soon be settled when the great canal now in the course of construction reaches us. We are informed that it will be here this season. The recent breaking off of the rain and the heavy north winds are begining to injure the pasturage. Unless it rains soon feed will be scarce, and our stock men will have to resort to the mountains.—G. C. Ting, Clarksville.

Fruit Drying.—*Republican*, April 6: The Hulburd fruit drying and canning company, capital $250,000, has been incorporated, and a permanent organization will be effected in a few days, when active operations will be commenced to have a factory in readiness for the coming fruit crop. The factory will be located in Upper Placerville, and it is to occupy the entire block of brick buildings in which B. S. Crocker's store is now located, being 120 feet front Mr. Crocker is preparing to remove to the stone building on the opposite corner.

KERN.

Hogs and Alfalfa Hay.—Judge Dixon, of the Buena Vista ranch, on the occasion of a recent visit there, called our attention to his herd of 100 head of hogs, which were fed solely on alfalfa hay. They were generally good stock, though none thorough-bred, and all were in fine condition. The hay has been hauled daily and fed to them since the first of January. Some of the finer bred animals were fat and would make excellent pork. As the hay cart is seen by them coming to the lot they run to the fence like a lot of calves, and eat the fresh hay with as much avidity. The hay was cut last summer, and there are now 500 tons stacked on the ranch, covered with tule. The experiment of Judge Dixon had its origin in the fact of the hogs, which were running in the alfalfa field, leaving the green clover and feeding daily at the stacks of dry hay. The result establishes the truth of our frequent statements that hog raising on the island is destined to become the most prominent and productive branch of farming. It would be almost impossible to estimate the possible increase with the unexampled facilities for growing them at a trifling cost. The pork, when made from hay, partakes very much of the character of grain fed meat, is solid and sweet, making first quality bacon and hams Every farmer will find it to his interest to cut at least one crop from his field for hay fattening of the hogs in the fall.

LOS ANGELES.

The Olive.—Anaheim *Gazette*, April 1: We are informed that the variety of olive which we have in California is one of the most inferior of the many kinds. We think this probably the case, and the explanation why the crop of many of the trees does not pay for the gathering. The manufacture of the oil in Southern Europe is an important industry, and the raising of the fruit itself is said to be there highly remunerative. The number of gallons of the oil made in Italy is given as 33,000,000, and the number in France as 7,000,000. It is said that there are three grades—the first product, the almost spontaneous exudation from the fruit and used in Europe for medicinal purposes and for oiling delicate machinery; the second, a somewhat less choice article, chiefly consumed in the countries of its production, while that last produced from the pulp, is styled by the French makers *l'huile d'enfer*, and is the olive oil of commerce. If this name, "oil of hell," be appropriate to the genuine though third-class product, much more is it so to the cotton-seed oil, doctored and sold extensively as the oil of the olive. If it be true the trees of the kind we have are inferior to other varieties, cuttings from Europe should be procured.

Corvallis.—Editors Press:—Corvallis is a new postoffice on the railroad between Los Angeles and Anaheim, five miles southeast of Los Nietos. It is the new town of Corvallis through which the noted Artesia country receives her supplies. I have several hundred acres of land which I am cultivating. It is irrigated by artesian water. I find the reading of your paper of great advantage to me. —G. H. Sproul, Corvallis.

MARIN.

San Antonio Cheese Factory.—Petaluma *Argus*: The San Antonio cheese factory, located on the Marin side of San Antonio creek, five miles south of this city, was established 16 months ago by the present proprietors, Rutherford & Killam, is doing a large business. Last year the firm paid one and a quarter cents per pound for milk, but owing to the low price of butter and cheese this season they are now received 16 cents per pound for their cheese, paying one and one-eighth cents. Last year they against 15 cents this year. They paid last year over $20,000 for milk and sold over 100 tons of cheese. During the past month they have made on an average 900 pounds of cheese per day, or 27,900 pounds in the space of 31 days. This required 263,500 pounds of milk in its manufacture, which was purchased at a cost of $2,666 62. The milk is gathered from about 20 different dairies, the most distant being six miles from the factory. The firm has three teams running constantly, and the expenses for milk, help, etc., are about $100 per day. We are informed that the price at present paid for milk is as good as 30 cents a pound for butter. It is to be hoped that the proprietors of the factory will meet with continued success, as their establishment is a source of convenience and profit to a large number of dairymen in the vicinity. Their cheese is of the best quality and meets with ready sale.

Mr. Payne's Factory—*Journal*, April 6: We have now a bright new cheese factory at Tomales, built by Mr. Jas. Payne. It commenced its first season's work on the 15th of last January, the factory being commenced last August. It is neat and trim in appearance, and is complete in all its appointments. It has also carpenter and machine shops attached. It is fitted with an eight-horse power engine, and is probably the largest single factory in the State, having capacity for 1,000 cows. It has at present the milk of over 600 cows, being about five and three-quarter tons per day, yielding 1,500 pounds of cheese. The price paid for milk is one and one-eighth cents per pound, or 12½ per gallon. Mr. Jas. Stinson, of Petaluma, is the book-keeper and manager. Milk bills are paid monthly, and last month aggregated $3,000. Mr. John McReynolds received for his milk for March, $480. Mr. Payne has made six cheeses to send to the Centennial, one of which weighs 150 pounds. Following is a list of dairymen who sell their milk to the factory: John McReynolds, Eder Harold, C. Giberson, M. Cassorett, Richard Johnson, John Freeman, — Church, Conrad Stump, — Osborne, Stafford Duncan, Robt. Clark, Mrs. Ledwith, Mrs. O'Neil.— Knight, Chas. Morkler, J. P. Whittaker, T. J. Ables, A. Manning, Stephen Conners.

The figures given above as the price of the milk are incorrect, for milk at one and one-eighth cents per pound would be a trifle more than nine cents per gallon. Will Mr. Payne or Mr. Stinson give us the correct price paid?—Eds Press.]

MERCED.

Chances for Laborers.—*Valley Argus*, April 8: If unemployed men would turn their steps to the country at the proper time, they would vastly better their condition. We venture the assertion that from the first of May to the first of November, 1,000 men can find employment in Merced county alone. The farmers will readily pay $35 a month to those whom they engage for the season; and where help is needed for but a short time, $2 and even $3 per day will be paid to good hands.

NAPA.

Conn Valley.—St. Helena *Star*, April 8: Mr. Marvin H. Payne, of Conn valley, favored us with a call this week. He reports considerable improvement going on now and the valley's prospect brighter now than ever before. A public road is about to be made through the valley, which will facilitate intercourse through it, the settlers having agreed upon a route and the viewers come to a favorable conclusion on it. The Glendale ranch company are making extensive improvements on their fine property, setting this year about 15 acres of vines, beside fenciug, etc. Elegant buildings are in the near prospect from this same company. Connolly Conn and Thos. G. Rodgers are also setting vines. Metzner & Co., having 55,000 vines, are making extensive preparations for wine making, and are going to build a wine cellar this season—indeed, are at work at it now—with the intention of making up the Conn valley grapes. The cellar is of rock and concrete, and will have a distillery added to it this fall. A. Gressott, who already has a small cellar, made this year about 3,000 gallons of wine, and has lately made a sale at very good figures. Mr. Payne is himself putting out 2,000 vines this year. The principal crops of the valley are hay and grain, though attention is now being mostly turned to grapes.

SACRAMENTO.

Analysis of Alkali Salt.—Editors Press:—It may interest some of your readers to know the result of an analysis lately made in my labratory, of the salt or "alkali" that comes to the surface on a portion of Sherman island, and seems to act very injuriously on all crops where it exists. The specimen was sent by Mr. A. J. Biglow, of Emmaton, and was taken off the surface of the soil just previous to the setting in of the rains; looked like fine salt mixed with a little earth. The analysis gave:

Sulphate of Magnesium, (Epsom Salts)	93.2
Chloride of Potassium	0.2
Chloride of Sodium, (Common Salt)	5.9
	99.3

This "alkali" is thus shown to consist almost entirely (up to 93 per cent.) of Epsom salt; which explains its injurious action upon vegetation, even in small quantities. The general remedy for all cases of salty or alkaline soil, of course, is under-drainage; whereby the rains and overflows of fresh water are enabled to wash out the injurious excess of any soluble salts. Other remedies, however, may find local application; and thus in the case above referred to, a slight application of slacked lime will effectually destroy the injurious action of the salts. The Epsom salt will thus be converted into gypsum and common magnesia, which will be a benefit instead of an injury. The other ingredients are not sufficient in quantity to hurt. As the same kind of "alkali" is likely to occur over a considerable area, it may be worth while for others than the Sherman islanders to try the effect of lime on their salty spots. I have now under examination, other true alkali soils from other points, whose extract when boiled smells like lye. This is an experiment easily tried by any one for himself. In such cases the application of plaster proves an effectual remedy, whenever the amount of "alkali" in the soil is not so great as to require leaching out.—E. W. Hilgard, University of California.

SAN DIEGO.

The Northwest Region.—*Union*, April 5: Many of our own citizens are not fully aware of the very important resources of the northwestern region of San Diego county. The agricultural development of this section has now only begun; but a very brief period has elapsed since the cultivation of the soil was attempted; hardly more than five years. At the present time there aro probably 20,000 acres of land, all told, under cultivation, of which between 15,000 and 18,000 are devoted to wheat, barley and corn. It would be difficult to give an approximate estimate, at this early day, of the harvest yield in this section. It may, however, safely be put at not less than 400,000 bushels of wheat and barley, and 25,000 bushels of corn. Wool growing is extensively carried on in this part of the county; probably qnite three-fourths of the whole clip brought to the city comes thence. Beef cattle, horses and mules, and hogs are also largely raised in our northwestern region. Don Juan Forster, of Santa Margarita, drives cattle to the San Francisco market by the thousand head, and will this year drive some thousands of horses as far East as Chicago for a market. The stock raisers have been for some time improving their stock; Forster and others have brought in fine blooded bulls and stallions, and are giving much attention to this matter. Sheep for mutton are also grown extensively, and there is a disposition among the sheep growers, also, to improve the grade. Another interest of increasing importance in this section of the county is bee keeping. The honey production gains rapidly, and ere long will rival that of the eastern part of the county, which contains at the present time much the largest number of apiaries.

SANTA BARBARA.

Lompoc.—Editors Press:—We have a most splendid season, abundance of rain in fine shape. The wharf progresses beyond previous expectations. Attracted by our temperance principles, the moral and intelligent society, and fertility of our soil, families have been coming in all winter; and as the directors have reduced very materially the price of our magnificent honda (grazing and arable ranches) they will continue to come largely this spring. All looks lovely and hopeful. We are seriously contemplating building a tramway to the wharf to convey our anticipated prolific orops to the San Francisco steamers. I send you the name of another subscriber, a neighbor, who with his sons will prove very appreciative readers of your excellent farmer's paper.—J. W. Webb.

SAN JOAQUIN.

Farmington.—*Independent*, March 27: The little village of Farmington is located in one of the richest agricultural districts of this State, and its trade is an important item for Stockton. During the year ending March 1st, 1876, there were shipped by rail from that point to Stockton 3,122 tons of wheat and 71,605 pounds of wool. At Farmington there is a brick warehouse with a capacity of about 2,000 tons, erected by a joint-stock company made up of the farmers of the vicinity, for the storage of grain, and should this season be as prosperous as it now promises to be it will not be large enough to hold one-half the surplus wheat of that locality. Although the village has not grown much since the completion of the railroad its business has increased, and the reduction in the cost of transporting wheat from that place to Stockton, from $2.50 and $3 per ton formerly charged by teams to $1.30 per ton, the present railway rates, has materially increased the profits of the farmers of that neighborhood.

SISKIYOU.

Fine Barn.—Yreka *Journal*, April 5: David Deter, of Little Shasta, intends putting up one of the finest and largest barns in the county. The barn is intended for keeping stall fed stock and hay, the main building to be 160 feet long, 30 feet wide and 22 feet high, of 10 by 10 material. On three sides will be sheds 16 feet wide, and on the other side a shed 32 feet wide, thus covering an area of 14,900 square feet of land, the whole structure, including sheds, being 192 by 78 feet in dimensions. Seventy-five thousand feet of lumber will be required, and all the sawed lumber will be made at Cleland's mill on Little Shasta. Mr. Deter intends using this for keeping up fine stall fed stock in winter, and is now reducing his band, so as to have none but the finest. The main building will be used for storing the hay, and the sheds surrounding will furnish a good feeding place and shelter for the stock. Mr. Deter has fed his stock well during the past winter, and while others were losing heavily, his cattle, sheep, horses, etc., look as fine as if fed on the best of spring or summer pasture, and he has not lost a single hoof, excepting one steer, supposed to have been poisoned by eating wild parsnip.

Siskiyou Agricultural Society.—The Board of Directors met at No. 1 engine house, March 20th, at 7½o'clock p. m. Present, Directors J. Martin, S. Magoffey, Theo. Young, P. G. Strickland, E. Flitner, and Secretary H. L. Tickner. P. G. Strickland was elected President pro tem, the President being absent. On motion of Director Young, it was decided that the 11th annual fair commence on Wednesday, Oct. 11th, 1876, and continue four days.

SONOMA.

Sheep Killed.—*Flag*, April 6: In the past three years David Hopper has lost 100 sheep—killed by dogs. Thirty-eight of these were killed last fall within about a month. In order to keep his most valuable sheep under constant watch, he herded them near his house. Part of this band were thoroughbreds, costing from $40 to $75 per head; part were one-half and the remainder three-fourths. One of the latter was badly crippled by the dog. Mr. Hopper offers one dollar each for all dogs delivered to him this month. For that lot of 100 sheep killed, Mr. Hopper has received no remuneration. Herding his valuable flocks near the house seems to offer no security. The people sent no petition to the Legislature to have dogs taxed, so the result is that all ambition for fine stock is about snuffed out.

Successful Reclamation.—*Democrat*, April 8: We learn from P. H. Canavan, of San Francisco, who is interested in Sonoma marsh lands, that about 40 acres of reclaimed marsh lands plowed last summer, and about 20 acres seeded in barley as an experiment, now promises most favorably; the grain looks well. The field plowed is on the west side and near the creek, adjoining the site of the house of the superintendent of the reclamation company. The work of reclamation has been done in the best manner. The gates across the mouths of the sloughs thoroughly exclude the water. We hope the time will soon arrive when the now unproductive and unattractive marsh will be covered with grain fields and vegetable gardens.

Petaluma Horse Show.—*Argus*, April 8: The annual show of stallions at the grounds of the Sonoma and Marin district agricultural society in this city last Saturday was a success in every sense of the word. A larger number of horses than on any similar occasion was exhibited and the reputation which this section has heretofore maintained for fine horses was well sustained. The great care, labor and expense that have been bestowed have been well rewardod, and at the exhibition we frequently heard the opinion expressed by competent and disinterested judges that it was not only the best exhibit of the kind that ever took place in California, but one of the very best in the United States.

TULARE.

Price of Wool.—*Delta*, April 6: The price of wool, so far as we are able to learn, ranges in this place from 12 to 22 cents per pound. We have heard of one or two lots having been sold at the latter figure.

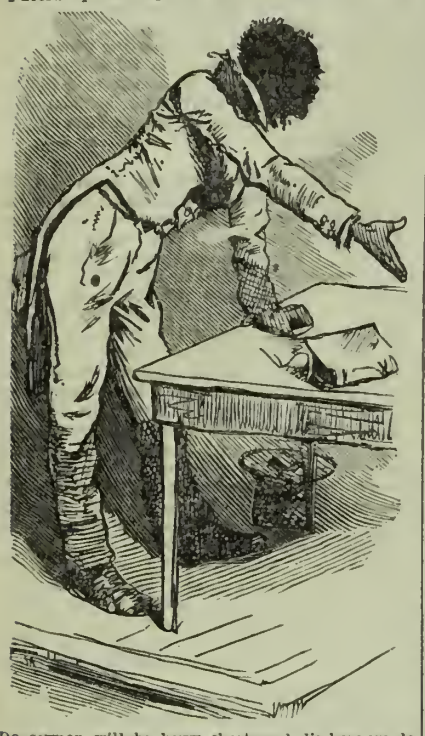
Hogs.—The price of stock hogs ranges exceedingly high this year. This is probably owing to the fact that an unusual wheat crop is expected, while the no-fence law has discouraged the hog men.

[From Scribner's Monthly]

Half-way Doin's.

By Irwin Russell.

Belubbed fellow-trabelers:—In holdin' forth to-day,
I doesn't quote no special verse ior what I has to say,



De sermon will be berry abort, and dis bere am de tex';
Dat half-way doin's sin't no 'count for dis worl' or de nex'.

Dis worl' dat we's a-libbin' in is like a cotton-row,
Whar ebery cullud gentleman has got his line to boe,
And ebery time a lazy nigger stops to take a nap,
De grass keeps on a-growin' for to smudder up his crap.

Wben Moses led de Jews acrost de waters ob de sea,
Dey had to keep a-goin', jes' as fas' as fas' conld be;
Do you s'pose dat dey could ebber hab succeeded in deir wish,
And reached de Promised Land at last—if dey bad stopped to fish?

My frien's, dar was a garden once, whar Adam libbed wid Eve,
Wid no-one 'round to ¸bodder dem, no neighbors for to thieve,
And ebery day was Christmas, and dey got deir rations free,
And eberything belonged to dem except an apple tree.

Yon all know 'bout de story—how dc snake come snoopin' roun',—
A stump-tail rusty moccasin, a-crawlin' on de groun'—
How Eve and Adam ate de fruit, and went and hid deir face,
Till de angel oberseer he come and drove 'em off de place.

Now, s'pose dat man and 'ooman hadn't 'tempted for to shirk,
But had gone about deir gardenin', and 'tended to deir work,
Dey wouldn't hab been loafin' whar dey bad no business to,
And de debbil nebber'd got a chance to tell 'em what to do.

No balf-way doin's, bredren! It 'll nebber do, I say!
Go at your task and finish it, and den's de time to play—
For eben if de crap is good, de rain 'll spile de bolls,
Unless you keep a-pickin' in de garden ob your souls.

Keep a-plowin', and a-boein', and a-scrapin' ob de rows,
And when de ginnin's ober you can pay up wbat you owes;
But if yon quite a-workin' ebery time de sun is bot,
De sheriff's gwine to lebby upon eberyting you's got.

Whateber 'tis you's dribin' at, be sbore and dribe it through,
And don't let nuffin' stop you, but do what you's gwine to do;
For when you sees a nigger foolin', den, as sbore's yon're born,
You's gwine to see bim comin' out de small end ob de horn.

I thanks yon for de 'tention you bas gib dis afternoon—
Sister Williams will oblige us by a-raisin' ob a tune—
I see dat Brother Johnson's 'bout to pass aroun' de hat,
And don't let's hab no balf-way doin's wben it comes to dat!

A Woman on Agricultural Employment for Women.

The most of our race mnst expect to remain in the ordinary avocations of life, and it would be very much better were the majority of our people more content with their pursuits.

Although it will hardly comport with the ides of propriety common even among the wives and daughters of Western New York farmers and Grangers, yet I will venture to call your attention to certain branches of industry in connection with agriculture, horticulture and kindred vocations which are now followed with pleasnre and profit by some ladies in different sections of our great country.

I have lately read of a widow in Colorado who, abont seven years ago, had only a tent to live in, with a young daughter. Her sole earthly possessions consisted of a very little furniture, together with two cows and two calves. As is usual in that region, the cost of keeping her stock was almost nothing. She sold milk at the town close by, and whenever she could spare a few dollars she would buy an extra calf or yearling. By patient continuance in this manner she has prospered, and now owns cattle by the hundreds, rides in her carriage, has educated her daughter and is worth many thousands of dollars, all the product of her own exertions.

Many others in various sections have started with two or three swarms of bees, and by patient study, inquiry and observation, coupled with industry, they are now among the most successful producers of honey the country affords. Could the two kinds of work just mentioned be combined together with the same good fortune, a land flowing with milk and honey might yet be found in the western hemisphere.

The raising of poultry and eggs for market purposes, if properly conducted, is often very profitable. Now, why is this not also a branch of business peculiarly adapted to women? Of course, like everything else, it requires knowledge, tact and time. Yet it has been well conducted by many and can be done again by others, though the teachings of the old story are still true that it is not safe to count chickens before they are hatched.

Then there are the small fruits. Surely if a woman wishes an avocation that will bring her health and wealth, both of these desirable objects are often found in this employment. The same may be said of gardening and various other kinds of work connected with the cultivation of the soil.

And one of the best features of all these industries is that when she wishes to dispose of her products nobody pays her less for them because she is a woman. The proceeds of her labor amount to precisely the same sum that would be obtained by the lords of creation. In other words, here, and almost nowhere else, she receives equal compensation with man for doing the same work.

Weights of Men and Women.—A recent writer offers certain interesting facts regarding the relative weights of men and women, from which we condense as follows: The average weights of boys at birth range a little over six pounds and a half, while girls fall a little below this figure. For the first 12 years the two sexes increase in weight in about the same ratio, after which the boys take the decided lead—the result being that young men of 20 average 143 pounds, while the average for young women of the same age is 23 pounds less. Men reach their heaviest bulk at the age of 35, their average at that time being 152 pounds. The maxium of weight is attained by women at 50 years, and is about 128 pounds. The weight of the average man or woman at full growth is about 20 times that at birth.

Getting a Wife in China.—When a gentleman in China feels desirous of taking unto himself a wife he sends to the paternal head of some family containing daughters for specimens of the size of their feet, with prices attached. One foot is valued at perhaps $2,000, and the next smallest at $5,000, and so on, according to the market. After the foot, or the lady to whom it belongs is chosen, she is sent in a sedan chair to the intended husband's house. He meets her at the door, looks into the vehicle to take a view of the fair one, and if she suits his taste he admits her. As soon as she passes his threshold she becomes his lawful wife; but if he likes the lady not he shuts the door and she is carried whence she came.

This is how Mary Kyle Dallas says it feels: "Take a man and pin two or three large tablecloths about him, fastened back with elastic and looped up with ribbons; drag all his own hair to the middle of his head and tie it tight, hair-pin on about five pounds of other hair and a big bow of ribbon. Keep the front locks on pins all night and let them tickle his eyes all day; pinch his waist into a corset, and give him gloves a size too small, and shoes ditto, and a hat that will not stay without torturing elastic, and a frill to tickle his chin, and a little lace veil to blind his eyes whenever he goes out to walk, and he will know what a woman's dress is. My!"

The Supreme Court at Washington refuses to recognize female attorneys, although cases in charge of women attorneys have been sent up from the inferior courts.

A Holy silence hath its influence upon all other graces; it causes the roses of grace to bnd and blossom forth.

True Living.—All is not waste that appears so, nor all living injurious that is relatively expensive. So, instead of grumbling about prices, let us remember two things: first, the income has risen with the outlay. If a man spends $5,000 a year, it is, in most cases, because he can get it to spend. And, secondly, living has become more expensive, not absolutely, but relatively. It stands for a better value. It has risen into the sphere of art. It is, among the sensible part of the community, not a question of display, not of animal gratification, but of education. Given so many dollars' income, how many avenues of mental and moral help will they open? how many pictures will they buy? how many books? how much good society, and generally how much of all that makes life valuable to its possessor? Upon this subject the *Cornhill Magazine*, of late date, has some sensible suggestions, but upsets all its theory by a concluding sentence, thus, "The person who is best off of all is the literary batchelor." In our judgment he is most to be pitied. A human silk-worm, spinning costly webs in which to embalm a cultivated selfishness! No, the true living is that which is broad enough to reach education, family, society, the world, and God.—*Interior.*

Tired of City Life.—A bank President of Worcester, Mass., speaking of Northampton bank robbery, the forgeries of Winslow, and other like items of commercial life, is said to have remarked: "I'm sick of this rascally world. Don't want to see or do business with anybody. I'd rather be an old farmer, living on a cross road, four miles from the sight of anybody, with a barrel of cider and two hogs, than to have anything to do with banks, money or men." A great many men long counted successful will echo the like words of Solomon, "All is vanity and vexation of spirit." But all of commercial life is not thus polluted, nor is "the lot of an old farmer living on a cross road, four miles from anybody," quite so enviable as the bank President's imagination, helped probably by the memory of boyhood days, has pictured it. Farmers well know that there are many and serious evils allotted to their lives; but very possibly this disclosure of envy of their assumed happy lot may make them better satisfied with their vocation, which is entirely the best in some respects.

Tree Mignonette.—This is by some supposed to be a distinct variety from the common kind grown in the garden, but it is not. The tree form is due to careful pruning and attention, and there is no variety of mignonette which will assume a tree form without constant care. The way to raise a "tree" mignonette is to sow the seed as usual, and when the plants are about two inches high, select one of the strongest, and plant in a pot or box by itself, and keep it well supported by a stake. Every side branch that appears must be pinched off, but the leaves must be allowed to remain on the main stem as they are needed for the health of the plant. When the plant is about a foot or more in hight, the side shoots may be permitted to grow, but they must have their heads pinched off occasionally to force them to form a bushy top. It will take some months to accomplish this, but it will make a beautiful plant.

Tale Bearers.—Of all the contemptible people in the world the tale bearer wears the horns. Next, and of equal importance, is the man who, under the guise of friendship, bears back to a person every gossiping rumor that floats on the breeze. Many of these stories would die out and be buried in oblivion but for these busy-bodies who run between principals and stir up enmities by bearing back these floating rumors. If every one who hears a rumor derogatory of the character of another, would, without running to the person about whom the story is told and harrowing his feeling with it, and stirring up strife between him and the man who only innocently repeated what he had heard, then much ill feeling would be prevented.

Step by Step.—Life is made up of little things. He who travels over a continent must go step by step. He who writes a book must do it sentence by sentence; he who learns a science must master it fact by fact—principle by principle. What is the happiness of our life made up of? Little courtesies, little kindnesses, pleasant words, genial smiles, a friendly letter, good wishes and good deeds. One in a million, once in a lifetime, may do a heroic action; but the little things that make up our life come every day and every hour.

Daughter and Milkmaid.—It is an interesting fact that our word *daughter*, when traced back, through the Greek *thugater*, to its source in the Sanscrit *duhitri*, is found to be equivalent to *milkmaid*, showing that it was the duty of the Indian maidens to milk the cows. It was no doubt considered a highly honorable office, since the cow, the most valuable animal to a pastoral people, soon came to be endowed with supernatural attributes.

A Sensible woman remarks to the girls, "Look out for physical health and beauty for the sake of the race. Do not bestow a glance on the pale, dyspeptic, cadaverous biped; shun him as you would a pestilence."

A Hartford man wants to sell a farm in which "meandering streams and rivulets permeate luxuriant pasture, while majestic oaks and stately maples attract the eye of the beholder,"

Women Lawyers.

The Milwaukee *Sentinel* prints the full text of the decision of Chief Justice Ryan, of the Supreme court of Wisconsin, refusing to admit Miss Lavinia Goodell to the bar of that court. The court premised by saying: "This is the first application for admission of a female to the bar of this court. And it is just matter for congratulation that it is made in favor of a lady whose character raises no personal objection; something perhaps not always to be looked for in women who forsake the ways of their sex for the ways of ours."

Then, referring to the argument that words in the singular number may be construed plural, and in the plural, singular, and that words of the masculine gender may be applied to females, unless in either case such construction would be inconsistent with the manifest intention of the legislature, he said: "The argument for this motion is simply this, that the application of this permissive rule of construction to a provision applicable in terms to males only has effect, without other sign of legislative intent, do admit females to the bar from which the common law have excluded them ever since courts have administered the common law. This is sufficiently startling. But the argument cannot stop there. Its logic goes far beyond the bar. The same peremptory rule of construction would reach all or nearly all the functions of the State government, would obliterate almost all distinction of sex in one statutory *corpus juris*, and make females eligible to almost all offices under our statutes, municipal and State, executive, legislative and judicial, except so far as the constitution may interpose a virile qualification. Indeed, the argument appears to overrule even this exception; for we were referred to a case in Iowa, which unfortunately we do not find in the reports of that State, holding a woman not excluded by the statutory description of 'any white male person.' * * * So we find no statutory authority for the admission of females to the bar of any court of this State. And, with all the respect and sympathy for this lady which all men owe to all good women, we cannot regret that we do not. We cannot but think the common law wise in excluding women from the profession of the law. The profession enters largely into the well being of society, and to be honorably filled and safely to society exacts the devotion of life. The law of nature destines and qualifies the female sex for the bearing and nurture of the children of our race and for the custody of the homes of the world and their maintenance in love and honor. And all lifelong callings of women inconsistent with these radical and social duties of their sex, as is the profession of the law, are departures from the order of nature, and, when voluntary, treason against it. The cruel chances of life sometimes baffle both sexes, and may leave women free from the peculiar duties of their sex. These may need employment and should be welcomed to any not derogatory to their sex and its proprieties, or inconsistent with the good order of society. But it is public policy to provide for the sex, not for its superfluous members; and not to tempt women from the proper duties of their sex by opening to them duties peculiar to ours. There are many employments in life not unfit for female character. The profession of the law is surely not one of these. The peculiar qualities of womanhood, its gentle graces, its quick sensibility, its tender susceptibility, its purity, its delicacy, its emotional impulses, its subordination of hard reason to sympathetic feeling, are surely not qualifications to forensic strife. Nature has tempered woman as little for the judical conflicts of the court room as for the physical conflicts of the battle field. Womanhood is modeled for gentler and better things. And it is not the saints of the world who chiefly give employment to our profession. It has essentially and habitually to do with all that is selfish and extortionate, knavish and criminal, coarse and brutal, repulsive and obscene in human life. * * * This is bad enough for men.

Mr. Chalmers beautifully says: The little I have seen in the world and known of mankind teaches me to look upon their errors in sorrow, not in anger. When I take the history of one poor heart that has sinned and suffered, and represent to myself the struggles and temptations it passed through—the brief pulsations of joy, the tears of regret, the feebleness of purpose, the scorn of the world that has little charity, the desolation of the soul's sanctuary and threatening voices within, health gone, happiness gone—I would fain leave the erring soul of my fellow-being with him from whose hands it came.

Hard to Decide.—A very knotty question has been raised at Toulouse, France. An oyster opener of that place, in filling a small order for immediate consumption, found in one of the oysters a magnificent pearl worth several thousand dollars. She promptly put the pearl in her pocket, but the person who ordered the oysters insisted that it was his. The claim he makes is that shells, juice, oyster and everything in the shells belonged to him when he bought the oysters, and he has asked the law courts so to decide.

A funny story is told of two Vermont farmers who are not Grangers. They induced their wives to join and report before they would submit themselves. Now, when they will they cannot. Two black balls greet every application. Meanwhile the wives go regularly and triumphantly to every meeting of the Grange and the men stay at home and mind the babies.

Home-Made Furniture.

A lady in the *Floral Cabinet* says that to hear one talk about home-made furniture the idea is conveyed that nothing can be made of boxes, half-barrels, etc., that will look genteel enough to be called hy the name of furniture. Now, kind reader, don't be disgusted. I have seen common goods-boxes converted into handsome bureans and stands; and they are so cheap and yet so convenieut that I wilt tell you how to make them. To make a pretty dressing stand for a bedroom take a box 3½ feet long, 18 inches wide and 18 inches deep—longer if desired. Cover it smoothly with dark brown cloth. Set it up lengthwise, with the open side to the wall. The interior will hold many things. Shelves can be put up if desired. Have a light frame work made and painted dark brown—tnen varnished. Attach this to the back part of the box, and by means of screws pnt a mirror firmly in the frame work. Make a ruching of cloth a shade lighter or darker than the other; sew it around the top of the box—this gives it a finish. It is pretty, as well as useful, and nobody would ever suspect its having been a goods-box once in its time. Another good way to utilize a large box: Cover it all around with dark green cambric (or, if you think green is poisonous, use brown,) leaving the open side of the box up. The cover should be fastened on one side of the box, so as to raise like a trunk lid. The top of this is to be padded—the outside covering should be dark cloth. This, in an upper chamber, is very convenient for holding wearing apparel, bedclothes, etc.

Good cupboards can be made of large boxes. Put shelves inside, and nail a strip around the top of the box so as to extend three or four inches above the level; this will prevent articles from sliding off. The whole is to be painted a good dark color. This, in the kitchen, if not used for holding dishes, will hide so many things that after awhile you will think it indispensable. Small boxes make nice foot-stools. Stuff the top, which serves as a lid to the box, thus making it doubly useful—good for holding old newspapers, rags, etc. A whole set of these will be fouud useful. In the sitting room they make good seats for the children. Small boxes are also nice to hold winter flowers. Take them about 12 inches deep, 18 inches long, hy 12 wide (larger if desired), and paint them white. The pure white boxes, with the green leaves so fresh above them, make a beautiful contrast. Keep near a door or window.—*Michigan Farmer.*

Home Influence.—If a father talks "money, money," at home he generally rears a family iu worship of the almighty dollar. If he talks mainly horses, games and races, he breeds a batch of sportsmen. If fashion is the family altar, then the children are offered up as victims upon that altar. If a man makes his own fireside attractive, he may reasonably hope to anchor his own children around it. The good father makes himself the constant evening companion of his boys. The result is that his boys are never found in bad places. But if the father hears the clock strike 11 in his clubhouse or the play-house, he need not be surprised if his boys hear it strike 12 in the gaming room or the drinking saloon. If he puts the bottle on his own table, he need not wonder if a drunken son staggers in, by-and-by, at his front door. When the best friend that childhood and youth ought to have becomes their foe, the home becomes the "starting post" for moral ruin.

Woman's Nature.—At the lower end of Woodward avenue yesterday au old apple woman offered her fruit to a vessel captain who was sighing over the good times of 1861. She wanted three cents apiece for her apples. He gave her a pleasant look and said: "Well, well. Why you look as young as you did ten years ago. Same bright eyes and red cheek—same white teeth." "Take an apple for two cents, Captain," she replied. "I presume you are 50 years old," he continued, "but who'd know it? Lots of ladies at 30 look as old as you do." "Take an apple for a cent, Captain," she answerod, smiling like a rose. "Some rich old fellow will come along some day, searching for a buxom wife," said the Captain, "and you won't have to peddle apples any more." "Here, Captain, two for a cent, take two of the biggest!" she exclaimed, and then ran after him and dropped two more into his overcoat. —*Detroit Free Press.*

Many housekeepers make a mistake in having no established system of doing their work. They worry and are wearied far more than is necessary, because they do not plan the work of the week judiciously, when, if each day had its allotted duties—washing, ironing, cleaning, mending, sweeping, cooking, and then the rest on the Lord's day—they would be astonished at the amount of leisure they would find for sewing, reading, writing and mnsic which so many often neglect when the days seem full of other work.

Horace Greeley once said: "There is nothing easier in this wicked world than to edit a blackguard paper, and nothing more difficult than to get up a newspaper free from foulness and blackguardism. Fish-women and bar-room loafers are skilled in the art of bandying epithets and bespattering each other with dirty words—it requires no brains to do this, but it does reqnire both heart and brains to print a newspaper that a decent man or woman can read without a blush."

Young Folks' Column.

Baby's Skies.

Would you know the baby's skies?
Baby's skies are mamma's eyes.
Mamma's eyes and smiles together
Make the baby's pleasant weather.

Mamma, keep your eyes from tears,
Keep your heart from foolish fears,
Keep your lips from dull complaining,
Lest the baby think 'tis raining.

—*St. Nicholas.*

About Fear.

[Written for the "Young Folks' Column" by Nell Van.]

Come, children, cluster around and hear what Nell Van has to say to you about fear. When she was a child, which you would think was a very long time ago, she was afraid of the dark, she was afraid to be left alone, in fact she was afraid of her own shadow. Are little folks as foolish now-a-days, I wonder? Fear is one of the greatest troubles of childhood and it sometimes clings to people as long as they live. Some children who might nevor have known what it was, have had it taught them like the little boy I once knew who was taken np to bed every night by a thoughtless servant. While undressing he was told to lay his clothes upon a chair at a distance from the light, and when crossing the room the wicked creature would call out, "Run for fear the bears will catch you." The little fellow would scamper with fright and would not easily go to sleep after that. The child's mother was told and the servant well scolded, but the mischief was done and the boy suffered in consequence for many a night afterwards from imaginary danger.

When children are afraid they rarely can tell you what they are afraid of. With vivid imaginations they picture to themselves all sorts of impossible things. In going down stairs they will say to themselves, "what if a big lion or a tiger was after me," and without stopping to consider how unreasonable such an idea is, they plunge in terror down the stairway and into the light. Now, these chidren surely know that we are not likely to have wild animals running loose about our dwellings, and by thus using the reasoning faculties they can overcome such foolish fears. Some parents govern their children by fear. Instead of enforcing obedience through love, they threaten with punishment for disobedience. A child soon learns by the tone of the voice whether it is expected to obey promptly, and if trained to obey on the instant it is rarely necessary to resort to violence.

The days of corporal punishment and brute force are passing away, it is to be hoped, for the most enlightened parents and teachers find a better way to enforce submission than through fear of the rod. I have seen a mother teaching her two little girls to sew with a switch lying before her upon the table. From time to time, as the tired fingers idled or the attention was diverted from their work, harsh words and blows were given to remind them of their task. The result was those children grew up to hate usefnl employment and quarreled continually because the rebellions part of their nature was ever uppermost.

Fear to do wrong always, bnt never frighten yourselves or others unnecessarily. Nervous children are sometimes frightened into fits which affect their minds for life. Never cause yourselves to suffer remorse by doing such injury to any human being. And now each one of you strive all you can to overcome this bugbear Fear.

Good Habits.—Remember, boys, before you are 21 you must establish a character that will serve you through all your life. As habits grow stronger every year, any turning into a new path is more and more difficult; therefore it is often harder to unlearn than to learn, and on this account a famous flute player used to charge double price to those pupils who had been taught before by a poor master. Try and reform a lazy, unthrifty or drunken person, and in most cases you fail; for the bad habit, whatever it is, has so wound itself into life that it cannot be uprooted. The best habit of all is the habit of care in the formation of good habits.

One Drop at a Time.—Have you ever watched an icicle as it formed? You noticed how it froze, one drop at a time, until it was a foot long or more. If the water was clear, the icicle remained clear and sparkling brightly in the sun; but if the water was but slightly muddy, the icicle looked foul, and its beauty was spoiled. Just so our characters are forming; one little thought or feeling at a time adds its influence. If each thonght be pure and right, the soul will be lovely and sparkle with happiness; but if impure and wrong, there will be wretchedness.

That "Exercise."—Answers still continue to come in in answer to the "Exercise" propounded by our Eastern correspondent in this department some three or four weeks ago.

It has been found that in nearly every civilized country the tree that bears the most fruit for market is the axletree.

Good Health.

Poisoned Stockings.

The Utica *Observer* of March 4th gives the following particulars in regard to a little four year old boy of that city who suddenly became seriously ill. His physician, on observing his stockings, said at once that his sickness was probably duo to his stockings, which were died *brown*, as the doctor throught by the use of picric acid. We quote the balanco of the story as follows: Last Sunday the little fellow put on a pair of brown woolen stockings. Yesterday morning he was taken very ill. He commenced retching and vomiting, and a yellowish hue commenced spreading all over his body. When Dr. Tefft was called the little fellow was suffering great pain. Dr. Tefft confesses that after an examinatiou he was unable to see why the boy should be sick until his eyes fell on the boy's brown stockings, when the thought flashed over him that the newspapers were probably right. and that there was poison in them. He had them removed at once, and fonnd that the boy's legs were fairly yellow. He then had the mother taste the stockings, and she declared they were very bitter. The mystery of the poor little fellow's illness was explained.

Dr. Tefft, on reading upon the subject of picric acid, found that it would produce the same symptoms as those exhibited by the boy. This morning the stockings were subjected to a thorough test. A piece was cut from one of them and placed in hot water for a moment. Then placing it between the teeth a very bitter taste was perceptible, so bitter that it irritated the end of the tongue. The pair of stockings was then placed in the water. On wringing them the water immediately became discolored, assuming a yellowish tinge which could not be mistaken. There is no doubt that the picric acid in the matter used to color the stockings produced the boy's sickness. At one time the little fellow was very near death, but he is now recovering. His yesterday's attack was his first serious illness, but it is noted that during the time he has worn the stockings he has been afflicted with diarrhea, headache and stomach ache.

The stockings were not a cheap pair. They were as nicely made and of as nice a shade as any. But their effects are dangerous. This picric acid is not used alone for purely brown stockings. It is also used to dye striped hose in which that color appears. But all brown stookings are not poisoned. Some of them are manufactured by honest dealers who disdain to make use of picric acid on account of its cheapness, because they know its deadly effects. There is one sure test to apply to detect its presence. Stockings dyed with it, placed between the teeth and against the tongue, impart a bitter taste which cannot be mistaken. Ladies or others about to purchase brown stockings would do well to apply this test before buying.

Keep the Feet Warm.

Never go to bed with cold feet. Never try to sleep without being perfectly certain that you will be able to keep them warm. To lie one night with cold feet gives such a strain to the system as will be felt seriously, perhaps ending in a fit of sickness.

Cold feet shows an nnbalanced circulation. The very best thing to do is to warm them by exercise, if that be practicable. If not, try dipping them in hot and cold water, alternately, two or three times, and then using vigorous friction. If that does not warm them and keep them warm, heat them before the fire, drying them thoroughly, and then correct your habits, or improve your health, for be snre that one or the other is wrong, or perhaps both.

With all the rest, if you sleep on a hard bed, with cotton sheets, in a cold room, put on an extra covering over the feet. It is very convenient to have a "foot comforter," just wide enough to cover the top of the bed and about a yard deep. This may be made of some light material (perhaps the remains of some pretty dress), filled with cotton, like a "comforter," and tacked with some harmonious color. During the day this may be thrown over the foot-board, and spread over the bed at night. The advantage of this is to secure light covering for the feet without overburdening the remainder of the body.

If you use a hot brick or hot iron, put it in the bed a little beforehand, and then when retiring remove it. To sleep with the feet in contact with it has a tendency to make the feet tender.

But better than both of these, and to be nsed with or without them, is the foot blanket. This may be a square yard of domestio flannel, or two yards folded of Swiss flanuel, or anything else you like that is warm enough, only have it nice and clean. Fold this around your feet and ankles before you put them into the bed. If not very cold, this will often warm them, especially if you have used friction; and if warm, it will prevent their becoming cold by contact with the cold sheets. It keeps the warm air around them. It does not make the feet tender, and it is far more convenient than the hot brick or soapstone. Try it, and if you are troubled with cold feet you will be likely to keep it by you hereafter. Whatever you use, always lie full tength. To "curl up" hinders free circulation.—*Herald of Health.*

Domestic Economy.

Practical Hints for Inexperienced Housekeepers.

I can truly sympathize with all the army of women, wives of men of moderate means in our country, who have ever before them the problem to solve, "How can we spread a table three times a day with food palatable, nutritious and economical?"

Having had 25 years' experionce in the various duties of the wife, mother, housekeeper, provider, cook, laundress and common seamstress, I shall be glad to say a word of encouragement and help to tho young experimenter in all these complicated duties.

It is all very well for men to tell us that women cannot cook. When a man attempts cooking he makes a business of it; he spends years in learning the art; and then he must have an assistant to wait upon him; must have the best materials at hand and the proper utonsils to work with; and, finally, he will expect to be well paid for his services. Don't condemn women as cooks until they have had a fair trial.

There are certain general prinoiplos in cooking, as in other arts, which should be learned, and the knowledge of these will make all details easy. We will make cake the especial theme of this paper.

The best flour should be used in cake making; indeed, there is uo economy in using cheap flour for any purpose. The best sugar for all plain cake is the coffee A. It is cheaper and better than the granulated for common use. For making very delicate cakes the pulverized should be nsed, being careful to get pure sugar; it is apt to be adultorated groatly. Eggs should be kept in a cool place; they beat much better to be cold. Do not try to make cake with butter which is unfit for table nse. It is not necessary to have the very best; good roll butter, having no bad taste, should be used. Recipes can often be changed without failure, if, for any reason, all the materials called for are not at hand. To venture upon this, however, you must act npon fixed principles. If you have but two eggs and the recipe calls for three, leave out a third of your butter and a little of your flour; the cake will be good. If your butter is short, leave out an egg.

It is often inconvenient to weigh all the ingredients; therefore, in giving recipes, I shall, if possible, give measures only. Roll sugar before measuring it; fill the cup even full, being careful not to pack the sugar. Flour should be sifted first and then placed lightly in the measure. Use for a measure a cup which will contain just one-half pint of water. For a measuring spoon use an ordinary silver plated spoon. A spoonful means even full--not heaped. Three teaspoons rounded full of baking powder is the general rule for a quart of flour; this must always be mixed very thoroughly with the flour, dry. If your recipe is an old one, and says cream of tartar and soda, you can generally substitute baking powder in its place. If you prefer to use the cream of tartar and soda, the soda must be dissolved in water and the cream of tartar mixed with the flour, dry. If your recipe says "sweet milk," use water in its place; the cake will be whiter and quite as good. To compound a nice cake two persons should, if possible, be engaged in the work; but we will suppose the young cook alone.

First see to your fire; this should be started at least an hour before the oven is noeded, so that the bottom of tho oven may be well heated and the heat steady. The baking is of the greatest importance, and should be carefully provided for. Read your recipe and place all the ingredients upon the table, or close at hand. Place your butter where it will soften, but not melt. Have the baking pans ready; place a piece of paper in the bottom and butter this and the sides of the pan carefully. The shape of the pan is immaterial, but it should be deep and not bright new tin. An earthen dish should be used for mixing cake. Now break the eggs, separating the whites from the yolks with great care; beat the yolks a few minutes, thon the whites, till a fine, stiff troth is formed. Set the dish containing the whites in a cool place, and on no account disturb it until it is needed. Now put the butter and sugar together and beat or stir with the hand till tho mass is light and soft, then add the yolks, spices, or flavorings; then the water, then the whites of the eggs and flour, alternating tho flour and eggs, till all is well stirred to gether; remove the hand and put the cake in the pans with a spoon. If, for any roason, the oven is not quite ready the cako may wait, if placed in a cool place, till the oven is all ready. After it is placed in the oven it should not be moved without great care. Don't open the door for inspection too often.

If the oven should bo too hot place a few nails under the pan and put a paper ovor the cake; romove a cover from the top of tho stove, bnt do not open the oven door. Tho drafts, of course, must be closed; they should always, during the process of baking, be partially closed. To learn when the cake is done pierce the loaf with a broom straw; if the straw comes out dry and clean it is done. If you have any doubt, however, leave it in longer.

The above are general directions for all the ordinary kiuds of cake. For fruit oake some special directions are needed. The fruit must be washed and dried; raisins stoned and chopped; flour dusted over the fruit and then put into the mixture, just before it is put into the pans.—*Cor. Chicago Tribune.*

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. R. EWER. G. H. STRONG. J. L. ROONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week.	1 month.	3 months.	1 year
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞ No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

Our latest forms go to press Wednesday evening.

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO

Saturday, April 15, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Cotate; The Enright Patent Portable Wood and Straw Burning Engine; Plowing Matches, 241. California Enterprise; Guard Against Frost; The Short Horn Sale, 248. California Coffee; Harvesting Machinery; A. T. Stewart; The Short Horn Sale; Patents and Inventions, 249.

ILLUSTRATIONS.—The Enright Patent Portable Wood and Straw Burning Engine, 241. Russell's Peerless Self-Rake Reaper, 249.

CORRESPONDENCE.—Planting Trees—San Jose Nurseries; Not s from Santa Barbara County, 242.

STOCK BREEDERS.—The Cattle Breeders' Society and its Sale of Short Horns; The Defective Pedigrees, 242-3.

HORTICULTURE.—Orange Culture in Lower California, 243.

THE VINEYARD.—Cost of Drying Floors; Make Both Hands Work, 243.

POULTRY YARD.—Picking off Feathers; Which Breed for Profit? Enterites, 243.

PATRONS OF HUSBANDRY.—Secret Societies; Business Association; Progressing; The Ancient and Modern Grange; From the Granges; A National Grange Temple; No Patrons in Chile; In Memoriam; Crop Notes; To Correspondents, 244.

GENERAL NEWS.—General News Items and Miscellaneous Paragraphs, on 244 and other pages.

AGRICULTURAL NOTES from various counties in California, 245.

HOME CIRCLE.—Half-way Doin's (Poetry); A Woman on Agricultural Employment for Women; Weights of Men and Women; Getting a Wife in China; True Living; Tired of City Life; The Mignonette; Tale Bearers; Step by Step; Daughter and Milkmaid; Women Lawyers; Hard to Decide, 246. Home-Made Furniture; Home Influence; Woman's Nature, 247.

YOUNG FOLKS' COLUMN.—Baby's Skies (Poetry); About Fear; Good Habits; One Drop at a Time, 247.

GOOD HEALTH.—Poisoned Stockings; Keep the Feet Warm, 247.

DOMESTIC ECONOMY.—Practical Hints for Inexperienced Housekeepers, 247.

QUERIES AND REPLIES.—Free Seeds; Poland Chinas; Chance for Business; Borers; Fish and Game Laws; To Exterminate Ants; Inquiry for Land; Curl Leaf on Peach Trees, 248.

USEFUL INFORMATION.—Hints for Practice; Preserving Submerged Surface, 250.

BEES.—The Extractor, 254.

NEW ADVERTISEMENTS.

Agricultural Machinery, Frank Bros. & Co., S. F.; Churns, E. K. Howes & Co., S. F.; Ranch for Sale, D. S. Tallman, Napa, Cal.; Thoroughbred Cattle for Sale, John Brewster, Galt, Cal.

The Week.

The ring of the week is clear and loud and true in all the counties. The progress of the harvest season is all that could be asked. Already the tables of the interior editors are strown with samples of heavy headed and long bodied grain plucked from the fields to bear witness to the words of glorious growth. Even the ominous "norther" has proved a blessing in many parts, checking too headstrong growth and strengthening the limbs which shall hold the rich kernels upright for the knives of the harvester. Thus far the hastening fruit has been spared the frost's embracing, and the promise is of overflowing baskets and bursting boxes.

In town the week has a silvery ring, for the white metal is closing up the distance which it has strayed from its sunny brother. The tendency is away from the troublesome and ruinous difference which has prevailed. It is a matter for rejoicing, for now that the season is approaching when the tide of money will be toward the farm, it is glad to know that it will be full round value, instead of a thing to be apologized for when one presents it. The course of the weeks is pleasant, each by each, as all progress through the circle of the year.

California Enterprise.

The whole world is on the *qui vive* to chronicle some new outgrowth or embodiment of California dash, courage or enterprise. It is expected in our industries as well as our speculations. Our novel and original methods of agriculture are a topic of interest almost everywhere. It cannot be doubted that very much of our originality in agriculture is owing to the unusual conditions which surround us, and yet there is a spirit, a well aimed energy, a sharp enterprise characteristic of our agriculturists, which both explains their ability to achieve past wonders and gives warrant of a capacity for future triumphs. We are led to these remarks by two very interesting facts of California experience which have lately come to light. It is our idea to give these facts something of a general bearing.

First, a farmer's success will depend to a great measure upon timely and apt production. Not only must he make it his aim to gain the largest crops, but, so far as his land will serve, he should produce the best crops both in quality and kind. If he can discern something which will increase a demand, or excite a new demand he should seize it though it costs him a considerable effort. When he makes up his mind that an improvement can be made, he should not spare sacrifice to make it. This is our first proposition. Now, to illustrate the style of effort which the world calls enterprise in this matter of seeking far and near for the material to aid in novel production, we have the experience of John S. Harris, of San Benito county, whom, our readers will remember, we announced recently as having arrived in Baltimore with goats from Angora. We will relate in very brief the story of his journeying:

He started April 16th, 1875, from California, via Japan and China, intending to go overland into Thibet, but found that impracticable. He then went to Calcutta, and going through India, reached the Cashmere district and saw the animals for which he had made so great a journey. He found the Cashmere goats covered with a rather sparse coat of coarse, long, black hair, under which is a fleece of extremely white, silk-like wool, used in the manufacture of Indian shawls and other goods that are highly prized for their fineness of texture and capability for receiving and retaining colors. The home of the Cashmere goat is in the Himalaya mountains, 22,000 feet above the level of the sea, in a region of eternal snows. There are no Cashmere goats in America. The traveler found these goats could not be profitably acclimatized in California, but he gained the information that mohair wool goats can be successfully raised in a high altitude and low latitude, such as the Sierras of Southern California. Mr. Harris concluded then to go to Angora, but found he could not proceed overland on account of war, nor via the Persian gulf on account of the unsettled state of the country. He therefore returned to Calcutta and went via Ceylon, Indian ocean, Red sea and Suez canal to Port Said, over the Taurus mountains, in crossing which he was occupied 21 days, and suffered intensely from cold, snows, etc., with no other food but native black bread and a kind of molasses. When finally he reached Angora and bought his goats, two rams and ten ewes, he ran short of money, and had to telegraph to California for credit at Constantinople. He borrowed from a friendly Scotchman, and start d for the coast. He had nine mules and three donkeys, on which the precious goats were slung in boxes, while other of the animals were loaded with provender and baggage. He tried to reach Smyrna, but after floundering in the mountains some days was obliged to return to Angora. He then turned north to Ishmid, where he struck rail to Constantinople. There he found money from his partner, paid his debts and the export duty demanded by the Turks. He went from Constantinople to Liverpool, and thence to Baltimore safely.

It is no wonder the world gives our agriculturist credit for enterprise when he has nerve to belt the globe to gain the material which he conceives will aid him in his productive work. It is no wonder that men who bring to their business such heroic devotion and endurance have gained a characteristic name.

But we had a part second to our sermon on enterprise. It is founded upon the proposition that it matters not how much enterprise and skill an agriculturist expends in the production of an article, he cannot reach his reward unless he secures also the command of a market for his commodity. It is true the better the product the easier the market. It is true that every improvement in production is also a step toward a better market demaud, but there are special efforts necessary before even a good product will gain full recognition from consumers. Every producer needs a little of the mercantile spirit, and he who best applies it will find his productive enterprise doubly remunerative. This is our second proposition. We illustrate the success of this point with the experience which has lately been related by W. Finch, of Pleasant valley. He says:

After I got through manufacturing at Jackson I took samples of the raisins I had been making, together with other fruits, such as plums, dried pears and dried grapes of the Mission variety, to see how they would sell in the Eastern markets. The result of which I will give a brief account. The first house I visited was in Elkhart, Indiana. The firm, Ed. Seely & Co., sold 1,000 pounds, mostly raisins and dried grapes. The prices were as follows: Muscat raisins, 16 cents per pound; Bugby raisins, 14 cents; Mission grapes, 8 cents; Bartlett pears, 32½ cents; plums, Washington variety, 32½ cents. The goods were delivered in Sacramento city, the purchaser paying the freight from that place. The next place visited was Lansing, Michigan. I sold to Robson Brothers 2,000 pounds, mostly raisins and dried grapes. The prices were the same as above. I also sold 1,000 pounds in South Bend, Indiana, to Messrs. Noblock & Lederer. Those gentlemen told me when I first entered their store and told them what I had for sale, that they did not want any more California raisins. They said they had tried them two years and could not sell them, as they were eaten up with worms. I asked them to look at my samples and compare them with their best imported, which they did, and ordered 1,000 pounds. All of the above houses, together with numerous others, told me if I could furnish them with such raisins earlier in the season they would take large quantities, it being after the holidays that I made these sales. Now, after taking into consideration the enormous sums of money paid every year to foreign countries for dried fruits and raisins, and the fact being fairly established that California can produce a better article if not all varieties than those imported, I wonder that people do not take hold of the business with a greater degree of energy.

This little story shows what has been done in opening new markets by the enlistment of push and enterprise. Now that our productive ability in nearly all our specialities bids fair to outstrip our local consumptive demand, it becomes a matter of most vital importance that new markets be opened and new trade excited.

We trust that the bearing which we make of the above facts will be perceived. We do not mean to say that all California farmers should scale the Indian mountains for Angoras, or that all the others should besiege the Eastern groceries. We only present these facts as illustrative of what enterprise can do in agriculture. It is for each producer to discover in what direction his special industry can be improved and expanded by the employment of this progressive spirit. It is for each to work out original ideas and discernments. It is for each to push ahead according to the fullest light which he can attain. The spirit of enterprise fills our California air. Let each breathe it and be strengthened; let each search diligently to discover how it can be applied to the work he has in hand.

Guard Against Frost.

The success of agricultural operations depends to no small degree upon an ability to master the conditions under which they are prosecuted. A hundred instances could be given of the way in which modern progress in the different arts of the husbandman is freeing him from many natural influences and conditions. We are thinking at this time of the wide damage which is done by late frosts in our vineyards, orchards and gardens. Our readers are already aware that the French, with their spirit of research and investigation, have met with great success in protecting their tender plants from these unwelcome visitors of the spring time. The production of artificial clouds of smoke is a common appliance against frost in France and Germany. Mons. Vinard has recommended a plan which is perfectly successful, and which consists in carefully mixing gas tar with sawdust and old straw, and piling up this mixture in large heaps in the vineyards. The mixture remains inflammable more than a fortnight, in spite of rain and weather. When required for use smaller heaps are made from the large ones, about two feet in diameter, and distributed in and around the vineyard. If there is little wind the heaps burn freely for about three and a half hours and produce a very dense smoke. The artificial cloud which thus envraps the vines considerably decreases the radiation from the ground, and therefore prevents frost, which is greatest toward morning during calm spring nights.

This is the French practice. We have only lately learned that full preparation to profit by their experience has been made by some of our vineyardists and fruit growers. Howes & Hall, who are fruit growers as well as sellers, have arranged everything on their fruit ranch to test the efficacy of smoke. They have made heaps of the grape prunings, straw and other combustible matter, and distributed them at intervals among their trees and vines. Thermometers are placed in different locations and the attendants are instructed to watch these silent monitors and raise a flame and smoke from one end of the field to another so soon as the mercury shows a sufficient downward course. We are informed that they have fired the heaps once, but there was not evidence of frost enough in other places to decide whether the precons had done them real service or not.

We hear also incidentally that the artificial heat method has been tried on a vineyard near Antioch, and that the result was fresh bright foliage on the vines, when the marks of frost were apparent on the adjacent unprotected fields. The tobacco fields at Gilroy have been saved in this way.

The question is worthy of full examination and test by fruit growers and vineyardists. It is worth while to make considerable effort and to invest some money if the result of a year's care and work can be thus saved from destruction. Doubtless by a little care the cost of fuel can be reduced very low. The cuttings from the vines, loads of the plentiful straw and the whole aided with a coating of tar, will make a very cheap and very effective "smudge." It will envrap the vineyard or orchard like a mantle and, so far as experience goes thus far, it will save the crop.

ON FILE.—"Botanical Excursions," J. G. L.; "Gilroy Dairymen," A. W.; "Leghorns as Layers," G. W. T. C; "Agriculture in Chile," C. T. W.; "Yield from one Cow," S. A. F.; "Dairy Association," T. B. C.; "Address before Antioch Grange," R. G. D.; "Silk Worm Egg Trade at an End," F. G.; "Underdrainage," Rancher; "Growing Eucalyptus," W. A. T. S.; "How to Exterminate Gophers," M. F. H.; "Farmers' Wives," R. E. A.

AN AGED FRIEND.—Mr. D. Wagner, Sr., of Sheridan, Cal., says: "I am 73 years old, and I have read the RURAL PRESS from the first and as long as I am able to read I hope to continue it. I like its information and its entire freedom from vile advertisements and trash reading."

QUERIES AND REPLIES.

Curl Leaf on Peach Trees.

EDITORS PRESS:—"Curl leaf" is making its appearance on the seedling peach trees, as it did two years ago, the grafted or budded trees escaping in the same orchard. Why is it?

I am grafting raisin grape on old Mission vines. Will describe mode and result in a few weeks.—WM. CRAIG, San Bernardino, Cal.

EDITORS PRESS:—"Curl leaf" has suddenly taken our peach trees in Oakland. What remedy?—A. T. D.

Curl leaf is an old complaint of the peach tree. Downing says that he is not aware that it does any harm, because a fresh foliage starts out, but it makes unsightly trees. The cause of the curl is, so far as we know, conjectural. Some attribute it to the cold north winds. J. V. Webster informs us that he has noticed that trees which curl their leaves are generally more tender and delicate, both in leaf and fruit. He considers the curl an evidence of delicate growth, for he has noticed that when there is much curl there is little fruit, and little curl, much fruit. He does not, however, consider the curl as the cause of the small yield, because he has had some trees which curl badly and still fruit heavily. He would rather attribute both the curl and the light fruiting to the same cause which affects the growth of the tree.

The difference which our first querist finds in his trees in respect to curl leaf has long been observed. Some varieties will curl badly and some will be unaffected. It seems to be the natural attribute of the tree. For a remedy, so far as we know, it will be necessary to plant those varieties which are not afflicted with the curl. We should be pleased to hear the experience and observations of our orchardists on this point.

Borers.

EDITORS PRESS:—I believe in giving as well as receiving; and as I have been receiving, through the columns of the RURAL PRESS, many valuable hints and much information upon almost every subject of interest to the farmer or fruit grower, it is but fair and right to give an answer, when asked in so gentle and unassuming manner as Felix Gillet puts it in the PRESS of March 18th, page 170. The "nailing" process will not do to keep borers out of apple trees, unless the nail should pass through said borer, or so close to him as to shut off his wind. I tried it five or six years ago on some young trees and lost every one so treated. Tell Mr. Gillet, or any other fruit grower, to depend on the free use of wood ashes or soft soap. Of trees soaped or washed with ashes I have never lost one by borers. Now please give us a sure and cheap remedy for the preservation of cabbage and turnips from bugs and lice.—SAM E. REED, Glennville, Kern county, Cal.

Give and take is the order of the day in this column. Will some correspondent help Mr. Reed with his cabbage and turnip pest?

Free Seeds.

EDITORS PRESS:—I used often to receive seeds from the Department at Washington when I was in the East. Do they ever send any on this coast?—G. H. SPROUL, Corvallis, Cal.

The free distribution of seeds through the mail has greatly fallen off since the abolition of the franking privilege. Formerly Congressmen were accustomed to mail great quantities of seeds to their constituents under their franks. Now there is a limited distribution through the Department of Agriculture alone. We believe that the Pacific coast is about as well treated in this respect as any other portion of the country.

Poland Chinas.

EDITORS PRESS:—A short time since I received a letter from E. F. Brockway, of Washington county, Iowa, who is making a specialty of raising Poland China hogs. He wants to know if a carload of a hundred can be sold in this country, and at what price; and I thought your valuable and wide circulating paper would be the best medium through which to procure an answer to his questions.—J. H. F. GOFF, San Benito, April 6th.

We yield the floor to any one that can answer this question.

Chance for Business.

EDITORS PRESS:—Can you give me the address of a good honest man that keeps a wood yard? I have 300 acres of land, mostly timber. I have a great deal of oak, fir and redwood, wood that will rot on my hands. I would like to go in with a good man and send him wood. The railroad depot is within half a mile of my place, and they have a good wharf. I would go in partnership with such a man, or sell wood.—OTIS ASHLEY, Felton, Santa Cruz county, Cal.

We cannot help our querist except by printing his query for any to answer who can do him service.

Fish and Game Laws.

EDITORS PRESS:—Please publish the fish and game laws of the State and oblige.—READER, Ellis, Cal.

These laws are too long for reproduction here. They may be found in the codes, which may be consulted at the office of a Justice of the Peace.

To Exterminate Ants.

EDITORS PRESS:—I would be glad if some one would inform me how to rid my house of ants. They are of the small red kind. They go all through my cupboard, and even my clothes closets are not free from them. I have done everything I could hear of to destroy them, but they appear to be getting more plentiful every day.—DIDA.

Cayenne pepper sprinkled about on the shelves and in the crevices will exterminate ants. Does any one know a better insectifuge?

Medlar and Loquat.

EDITORS PRESS:—Your column for "Queries and Replies" I think one of the most interesting and profitable to be found in the PRESS. I have a few queries to propound, which please answer through the PRESS. (1.) What kind of fruit is medlars? (2.) Describe the loquat or Japan plum. These fruit trees are spoken of in the PRESS, and we would be glad to know all about them.—W. C.

Will Mr. Gillet or any others of our readers answer the queries.

California Coffee.

We have new tidings of richness from the foothills. The subject of coffee is not new. We have printed articles about it and its cultivation, and yet whenever the subject comes up there is a tempting fragrance about it which impels to publication. It seems that Mr. Willard T. Jones, of Stockton, has been examining the native coffee plant of the foothills, and the *Independent* gives a very interesting account of his researches and conclusions. He gathered the berry in its wild state. It has been generally supposed to bear only a fancied resemblance in form and taste to the coffee of commerce, snd but little attention has been paid to it. A careful inspection and botanical analysis of it, however, prove it unmistakably to belong to the order of *cinchonaceae*, the genuine coffee plsnt. It is described ss a scrubby, bushy evergreen plant, growing to the hight of six or eight feet, with long, smooth, shining leaves of a dsrk green color; its trunk is covered with a gray colored bark, and its blossoms grow in thick clusters. When ripe, the berries are jet blsck, resembling a cherry, and each contains two grains of coffee, whose flst surfaces lay next esch other, surrounded with a pulpy matter abont a sixteenth of an inch thick. If allowed to remain, this pulp dries around the kernels in a hard shell, that has to be removed by

An Artificial Process.

If the berries are taken after they ripen and before the drying of the pulp takes place, the pulp csn be removed by breskıng the skin and subjecting it to a washing process, and afterwsrds drying the inside grains in the sun, as Mr. Jones did with the specimen he showed us. The kernels come out of the pulp white, but a few minutes' exposure to the sun turns them to brown coffee color. In Arshia, where the coffee is raised, the berries are dried in the sun and the outsido hull is removed by the hands. In the East snd West Indies and South America the curing is usually performed by exposing a layer of the fruit several inches in thickness to the heat of the sun, so that fermentation takes place. When the moisture has disappesred the dried fruit is passed between a fluted roller and a breast board, and the pulp is then washed away. The chaff is removed by winnowing, sfter the seeds sre dry. The specimen shown us resembled the Mocha coffee, except the kernels were smaller and the central groove was not so msrked. The suhstance of it, too, was not so solid, but it had

The Genuine Taste

Of an inferior article of coffee, showing thst it only required cultivation to develop its possibilities. It may be considered a fact of the greatest importance that the existence of this plant, growing in such rank abundance in our foothills, and indigenous to our soil, demonstrates the possibility of making the growth of coffee one of the leading industries of the State. The constant discoveries of important resources of this kind go to show how little we realize the possibilities of our wonderful soil and climate. The situation of this plant here coincides exactly with the description of the location of the fields and localities growing the coffee of commerce. In Abyssinia it grows wild over the rocky surface of the country, also in Liberia snd Mexico. In Brazil it is cultivated on the barren mesas and mountsin sides. It thrives in warm situstions upon the slopes of hills and in soil not retentive of the rains that water it.

All that the native coffee of California seems to require to make it of oommercial value is cultivation, but if cultivation should not succeed in bringing this variety to perfection, where it will grow the Java, the Rio and the Mocha should thrive. It is a wonder that those who mske

A Business of Adulterating

Coffee with chicory, besns, peas and cbrn, do not collect the wild article, as they can do by the ton, and mix with the imported article, and so have "pure coffee" without any discount. It is said that the "worst coffee produced in America will, in from ten to fourteen yesrs, become as good and acquire as high a flsvor as the best we now have from Turkey." If that is the case and coffee, like wine, grows rich and valuable with age, all we need do is to gather our foothill coffee and store it away to make it bring the highest market price in future. Who will be the first enterprising farmer to experiment in its cultivation, and to change his worthless, barren foothill rocks into valuable plantations of the aromatio berry whose decoctions soothe the nerves of half the world with its gentle intoxication?

Fresh Grapes in April.—Quite an interest was awakened in city circles by the arrival of a box of fresh grapes, which have been on exhibition at the store of Strong & Williamson, on Clay street. The fruit has been preserved in the powdered bark of the sugar pine, and is, in taste and appearance, almost as fresh as the day it was taken from the vine. They were received from George Geissendefer, of Placerville. The fact that grapes can be preserved in this way may be suggestive to some of our vine growers. Certainly there could be money made by supplying the trade with fresh grapes at this time of the year.

We direct attention to the advertisement of "Chufas and Japan Peas," two new crops of great promise that are fast being introduced and successfully cultivated in the warmer sections of this country.

Harvesting Machinery.

In pursuing our visits among our city establishments, which are now putting forth every effort to provide proper machinery for the coming glorious hsrvest, we came to the well known house of Linforth, Kellogg & Co., Nos. 3 snd 5 Front street, S. F. This firm is doing a large business in almost every conceivable srticle of agricultural machinery and general hardware, and their stores are filled with the bustle of customers snd the noise of arriving and departing goods.

From the fine display of hsrvesting mschinery which they have ready for the farmer, we choose for illustration on this page "Russell's Peerless self rske reaper." This machine has stood the test of service, and is most earnestly recommended by those who have used it. The machine has strong points of advsntage. The msin frame is made of cast iron, and has the strength requisite to hold its bearings firm and true. The manner of gearing is as follows: Starting with the driving wheel, which connects with a ratchet wheel neatly encased, this gives motion to the main shaft or axle, they acting independently of eaoh other, giving a continuous motion to the knife. Instead of a bevel gear, a straight-toothed or spur wheel is used, giving the most strength where service is required. The tilting lever can be raised or lowered in an instant without interfering with the vibrating of the knife. The self rake is entirely under the control of the csn be done most easily with a very ingenious contrivance known as Fisher's knife grinder. It discounts the old tiresome grindstone and gives a true shape to the knife.

The "Chicago Pitts thresher," improved, is in the hands of this firm. Tho testimonisls in favor of this separator and cleaner award it the highest praise. For fast work and clean work it is especially recommended. The machine by mesns of its improvements is kept abreast of the discoverics which are being made in quick and effective operstion. This celebrated thresher has 20, 26, 32 snd 36 separators; and 8, 10 and 12 horse mounted powers; combining great strength and durability, large cleaning capacity, new improved end shake shoe, with the double pinion mounted power and patent spur gear attachment, and making it one of the most desirable threshers in the market. For small work the firm sell Wheeler's excellent two horse tread power machine.

An indispensable adjnnct at hsrvesting is a good engine. The "Msnsfield steam engines." These are complete, well mounted engines, claimed to combine lightness with power and economical of fuel and water. They are represented as the only portable engines manufactured in the United States having the steam jacket and balance steam valve. The bed is set on brsckets or supports bolted to the boiler, which locates the engine at the sine of the boiler, low down. A steam jacket entirely surrounds the steam oylinder. The boiler is msde of the best charcoal hammered iron, stayed and riveted in the most thorough manner.

In rakes the firm has the "Furst & Bradley sulky rake," which can be recommended for

RUSSELL'S PEERLESS SELF-RAKE REAPER.

driver—dropping a sheaf just where he pleases, gathering a full sheaf where grain is light The machine is claimed to bo most durable, and combines with this quslity a lightness of draft and free working which is invaluable. It chsllenges all machines in the work done in lodged or tsngled grain. A point which will be a certificate of value in msny of our fields is the introduction of high and broad wheels especisily adspted for work on tule lsnds.

Besides the self rake reaper, the firm offers three styles of mowers, which are worthy of special note. The "Russell Peerless mower," which at recent competitive trials hss established its claim as a light draft machine. It has also great strength and is most easily handled. The wheels are broad and high and the machinery is perfeotly guarded from dust. The "Wm. Anson Wood's Eagle mower," which is another of the specialties of the firm, claims one hundred first-class prizes for actual superiority in the field. It is exceedingly simple in construction. Another mower which the firm offers is the "Clipper." It enjoys an excellent reputation as a mower. There are now about 20,000 in use and highly praised.

Linforth, Kellogg & Co. offer two headers. The "Haines header," built expressly for the California trade, is an admirable and effective machine. It has an improved screw hub wheel, with either center or end pinion. The following are the points in its favor: Its advantages are simplicity of gearing—operating better than any reaper in heavy, light or tangled grain. Its draft is as light as any of the five foot reapers. It will cut double the amount of grain in a given time than any reaper can, and at less than one-half the cost. It saves grain cleaner than any reaper by one or two bushels per acre. It hss no sido draft nor weight upon the horses' necks. The second header sold by the firm is the "J. & I. Case's single gear header." This machine has a self adjustable reel, a point of great importance and value. Both these headers are furnished with either iron or woodon wheels.

"Keep the knives sharp" is good advice in regard to harvest cutting machinery. This the quality of material and esse of operation. The "Tiffin revolving rake" is a strong and well made wooden rake, of which 45,000 are now in use.

Linforth, Kellogg & Co.'s show of wsgons is very complete. It embraces everything from the light spring wagon to the heavy and strong Pacific wagon, endiug with a full list of header wagons especially made for use on this coast.

A valuable farm machine is the fanning mill. It gives clear grain either for sale or seed. A. P. Dickey's grain fsns are sold in two sizes, the "fsrm fan" and the "warehouse fan." These machines bear a very good name.

We have noted a few of Linforth, Kellogg & Co.'s machines to indioate the style of articles which msy be found at their establishment. Their business is large and worthy of general attention. They are now supplying Mexico with large quantities of hardware and are making large shipments to Australia and Chile. On this coast they have local agents at all points. Our agricultural readers are familiar with their name and will be interested to have some idoa of what the articles sre of which they are making specialties this season.

Lands Sold for Delinquent Taxes.—Governor Irwin signed the bill for the rolief of persons whose lands were sold to the State for delinquent taxes undor the act of 1874. The law now provides that where lands hsve become the property of tho State under the delinquent tax law, the porson originally owning the same, or his successor in interest, upon payment to the County Treasurer of the amount of the taxes, together with all the costs incnrred, shall receive again a title to the land. An exception is made in this law that tho parties shall not be entitlod to recover land, originally owned by the State, where said lands were not paid for in full at the time of the dolinquency.

A Letter.—We have addressed to our caro, a letter for the "Secretsry of the Wool Growers' Association of the State of California." Will the secretary advise us where to send it?

A. T. Stewart.

The overland dispatches on Monday morning brought news of the death of A. T. Stewart, of New York City. Perhaps no man in the whole country was better known. His name hss been the synonyme for success. The story of his lifo, from the days when he wss a poor emigrant boy to the yesrs he has reigned a merchant prince, has awakened and nerved many a young man to action. Tho incidents of his life sre familiar to many, and yet they contain such proof of the success of upright and honorable endeavor, thst we are tempted to recite them again as his work has closed. He was born in Belfast, in 1808, and wss liberally educated. He came to New York when he was 21 years of age and become a teacher. Soon afterwards his grandmother in Ireland died and left him a small legacy. Instead of bringing his little fortune bsck in gold he invested it in laces. With bssket in hand he sought out the first families of tne city, who could afford to buy his costly articles. His msnners and modesty were such ss to win for him the good will of some of his customers, who advised him to start a dry goods store. This advice he slso followed and soon found a smsll store. The business prospered from the beginning, increasing so rapidly that Stewart found it necessary to obtain larger premises. He said at one time that he would not be satisfied until he increased his business so that his sales would amount to $1,000,000 a month. By his strict integrity and starightforwardness his smbition was more than gratified, for in the year 1865 his sales amounted to $55,000,000. Thus the basket peddler of laces went onward, by most careful attention to business, until he died possessed of a fortune of $40,000,000. It was the result of honorable toil, sagacity and enterprise. The secret of his success was maintained throughout his whole career; it was—"Truth snd Honesty."

The Short Horn Sale.

Readers will not forget the sale of cattle, under the auspices of the Breeders' Association, which will be held on the fair grounds in Sacramento, April 20th. We doubt not that all who can do so will find it profitable to attend. There has arisen quite a feeling among breeders of thoroughbreds concerning three of the animals mentioned in the printed sale catalogue. In our Stock Breeders' Department this week we print two commnnications from responsible correspondents who answer for their own views upon the subject. We advise our readers to peruse these letters and acquaint themselves perfectly with the points at issne. The secretsry of the society distinctly limits tho defective points in pedigree to threo animals, of those whose pedigrees appesr in the sale catalogue. Whstever may be the merits of the objection then, there are but three animals to which any exception in pedigrce can bo taken. The remainder have by common consent clear titles to their lineage. There is therefore no good resson why the objection made should militate at all against the sale ss a whole. Rsther, as we think, the raising of objectionable points will benefit the enterprise by showing that all that csn be said against it is of limited spplication. We trust the ssle will bo a grand success.

Hops at the Centennial.—At a recent meeting of hop merchants held in New York a committee of twelve was appointed to superintend the department of hops in connection with the brewers' exhibition at the Centennial. It is proposed to exhibit in this depsrtment hops in bales or samples, implements and appliances used in the culture and preparation of hops, plants or roots of special character or interest, and later on in the season samples of the new crop, 1876. Mr. A. T. Elliott, of 214 California street, S. F., announces that he will aid any Californis hop grower or brewer who wishes to make an exhibition of hops or ale. It cannot be doubted that as fine a growth of hops can be produced on the Pacifio coast as can be produced anywhere, and samples or bales of the celebrated Willow Grove or Russian river growth placed on exhibition at the Centennial would attract the attention of thousands of foreign dealers and brewers. We understand that special attontion will be paid by the committee to facts and statistics on the acreage, oulture and growth of hops. Mr. G. W. Elkins, 125 North Water stroet, Philadelphia, has been delegated to take charge of goods consigned for the purpose of exhibition.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch. Dated Washington, D. C., April 11th, 1876.

For Week Ending March 28th, 1876."

Car Tsucks and Wheels.—Phineas Banning, Wilmington, Cal.

Seams for Boots and Shoes.—Courad F. Glanville, S. F., Cal.

Guards for Shaping Machines.—Marquard Hansen, S. F., Cal.

Cuaing Tobacco.—John R. Opitz, Anaheim, Cal.

Plows.—James T. Watkins, Santa Clara, Cal.

Pneumatic Annunciator.—David Morris, S. F.

Useful Information.

Hints for Practice.

Glue holds more firmly when applied to the fibers cut across than to a cut parallel to the fibers.

Soaking wood at 80 to 100 degs. C. in linseed oil for two or three days increases its resistance to fracture. It is believed that the increased toughness is due to increase of the density of the wood.

Tasteful ornaments may be made of natural leaves and sprays artificially frosted. This is done by means of powdered glass, which can easily be obtained by pounding some bits of glass with a heavy hammer, care being taken to protect the eyes against flying splinters. Dip the objects in thin gum water and shake the powdered glass over them. When dry, handsome bouquets can be arranged.

Glue frequently cracks because of the dryness of the air in rooms warmed by stoves. An Austrian contemporary recommends the addition of a little chloride of calcium to glue to prevent this disagreeable property of cracking. Chloride of calcium is so deliquescent a salt that it attracts enough moisture to prevent the glue from cracking. Glue thus prepared will adhere to glass, metal, etc., and can, it is said, be used for putting on labels without danger of their dropping off.

The *Housekeeper* gives the following suggestions for utilizing old tin cans. Take off the top of the can, punch holes on opposite sides near the rim, put in a wire tail, and you have a little bucket, which may serve for a paint pot, to keep nails in, or other handy purposes. Take off the top, cut to the proper shape, and fasten on a handle by means of a screw through a hole in the bottom, and a useful scoop may be made. A saucepan for small messes may be made by cutting down a can, leaving a strip to be bent at right angles, and turned round a stick, to serve as a handle. A coarse grater for crackers, etc., is easily formed from a piece of tin fastened to a board. The holes in the grater should be made with an old three-cornered file.

Preserving Submerged Surface.—The composition invented by Mr. G. F. Heyl, of Charlottenburg, consists of palm oil or oil of Senegal about 20 parts; coloring matter (hydrated protoxide of iron or chromate of lead and Prussian blue), 100 parts; varnish, 20; lac, in scales or flakes, 10; pyroligneous spirit of alcohol, 120; resinous gum or euphorbia, 50; chloride of mercury, 15; and arsenic 15=350 parts.

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Davis & Sutton, Commission Merchants,
For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier. Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

GORHAM SEEDERS AND CULTIVATORS COMBINED

In Sizes from 6 to 14 Feet Long. The Only Reliable Combined Broadcast Seeder in Use Will Seed and Cultivate from 12 to 35 Acres a Day.

MOWERS.

Excelsior, "Junior and Medium," Russell's "Peerless" Mowers, Ætna Mowers, Wood's Mowers, Meadow Lark Mowers. The leading Machines of the day at prices below all others.

Reapers.

Excelsior "Dropper," Wood's "Sweepstakes," Russell's and Ætna Side Rakes.

HAINS' HEADERS.

The perfection of these Headers can only be appreciated when seen. They combine all that is valuable in other makes, besides many improvements to be found on no other. Don't fail to see them; you will save money and get the best. Also TREADWELL'S SINGLE GEAR PATENT REEL HEADER.

COATES' LOCK LEVER RAKE,

Awarded the First Premium at State Fair last fall as the best steel tooth hay rake.

Sulky Revolving Rakes,

Just the Rake for all kinds of Grass.

HEADER WAGONS,

Both Iron Axles and Thimble Skeins.

J. I. CASE & CO.'S 18-Horse Engines.

These celebrated and powerful Engines, so complete in all their parts, fresh and new from the factory, will be sold very cheap. We are prepared to give these Engines any kind of test to show their power over other make with less fuel.

40-INCH SEPARATORS.

We want all interested parties to look at our Separators, believing they will see the most perfect Thresher ever imported, at less figures than ever sold here.

Halladay's Windmill.

Over 130 different railroads are using them. They are the standard mill the world over. We sold more windmills last season than has ever been sold by one house on this coast in the same length of time. We have found by dear experience that Mills that have no rudder are unsteady and flop around, literally wearing themselves out, and at the same time do but little work: besides, are liable to blow down; we can furnish any size from eight feet to 60 feet in diameter, from one to 40-horse power, and guarantee them for five years.

It will pay all who are looking with a view of making selections among the different lines of Implements to see our stock, and get the lowest ruling prices. Our stock embraces everything in the Agricultural Implement line. Send for Price List and Catalogue.

KELLER & CO.,
43, 45, 47 J Street, Sacramento, Cal.

LEA & PERRINS'
CELEBRATED
WORCESTERSHIRE SAUCE,
DECLARED BY CONNOISSEURS TO BE
THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of
Lea & Perrins' Sauce,
which are calculated to deceive the Public,
LEA & PERRINS have adopted
A New Label,
bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of
Worcestershire Sauce,
after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

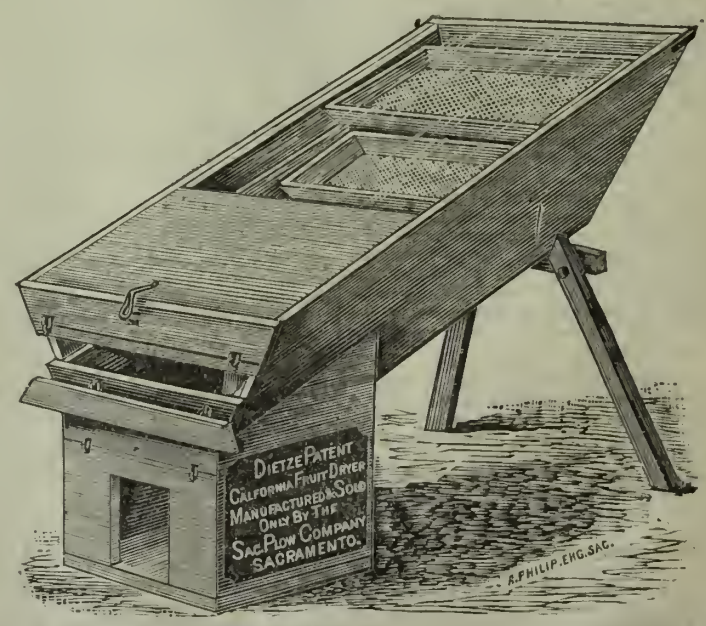
Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco

No Agents are authorized to receive subscriptions fo this paper at less than our advertised rates.

CALIFORNIA FRUIT DRYER.
DIETZ PATENT.

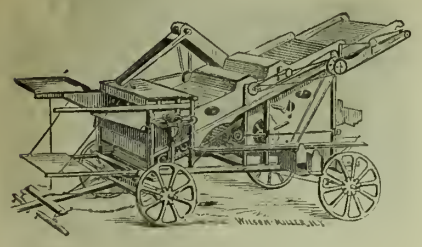


Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple in construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,
Sacramento City, Cal.

Treadwell's Patent

END-SHAKE THRESHER.

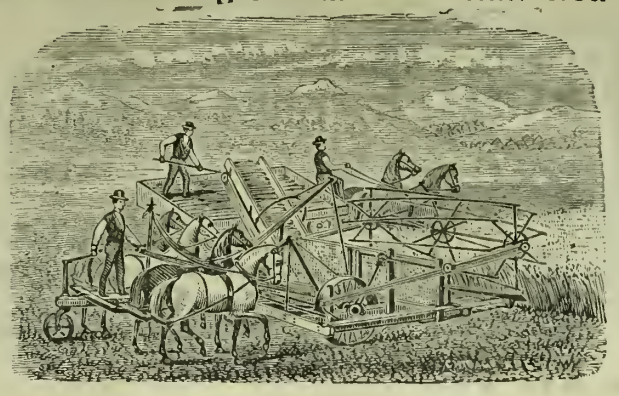


MADE BY RUSSELL.

We have 24, 30, 33, 36, and 40 inch machines, made this year, all with Laufenburg's patents, and the celebrated End-Shake Shoes—the greatest improvement yet made in Separators. Send for circulars and prices.

Treadwell's Single-Gear California Header.

High Iron Wheels with Adjustable Spokes.

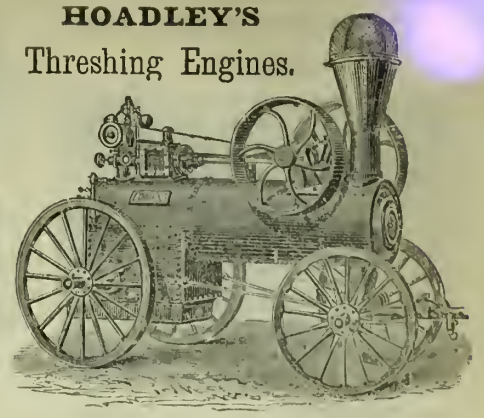


Patent Adjustable Reel and Frame Brace.

No other Header has these Improvements.

☞Any farmer buying $300 of worth machines or implements of us, will be paid his fare to San Francisco and back, if not over 200 miles. He can thus come and see for himself, without any expense. Send for our prices before ordering any machines.

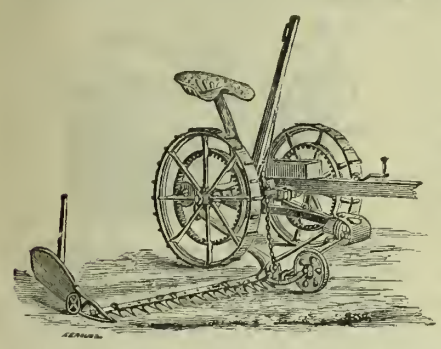
HOADLEY'S Threshing Engines.



REDUCED PRICES.

9 Horse Power, new style, complete		$1,200
12 " " " " "		1,450
15 " " " " "		1,650
15 " "	Patent Straw Burning Engine	1,700

BERRY & PLACE, - - - Old Stand, Market, head of Front Street, - - - **San Francisco.**

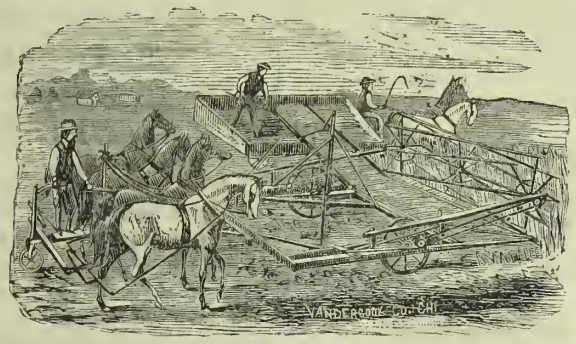


WM. ANSON WOOD'S EAGLE MOWER.

RUSSELL PEERLESS MOWER.

WM. ANSON WOOD'S EAGLE MOWER,

Now acknowledged to be the Leading Mower on the Coast—From its durability and strength, being constructed of iron and steel, and from the rapidity of its motion, cutting all kinds of grass. It will work on uneven ground.



RUSSELL'S PEERLESS MOWER,

New Improved, with Rear Cut, High, Bread Wheels and Covered Frame. It runs the lightest, has less side draft and the gearing is better protected than any machine in the market. There is less danger of breakage and no fear of stoppages by dirt dropping into the cogs.

A Full Supply of Extras for the above Machines Constantly on Hand.

FISH BROS.' FARM WAGON.

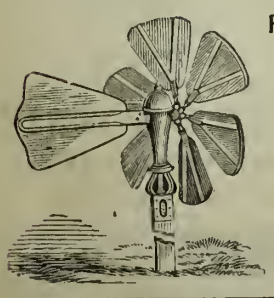
FISH BROS.' PLATFORM SPRING WAGON

Fish Bros. & Co's Pacific Farm, Spring and Header Wagons.

The best painted, the best proportioned, the best ironed, and the Best Wagon on Wheels. We can sell a BETTER SPRING WAGON FOR LESS MONEY than any firm in California, comprising Two Spring "Specie Basis" and Platform Spring Delivery Wagons; Three and Four Spring Express Wagons, both with plain and Sarven's Best Patent Wheels.

LINFORTH, KELLOGG & CO., - - 3 and 5 Front street, S. F.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 45 Cal. Market S.F

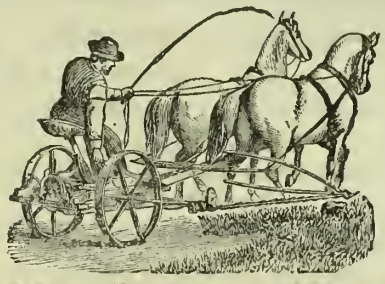
POND LILIES,

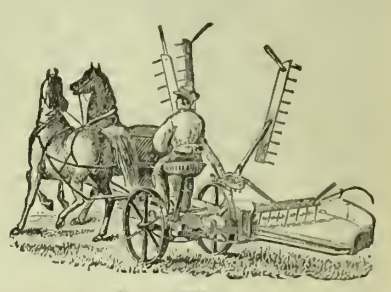
WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,

Pacific Forest Tree Nursery, Petaluma, Cal.





Buckeye Mower and Reaper.

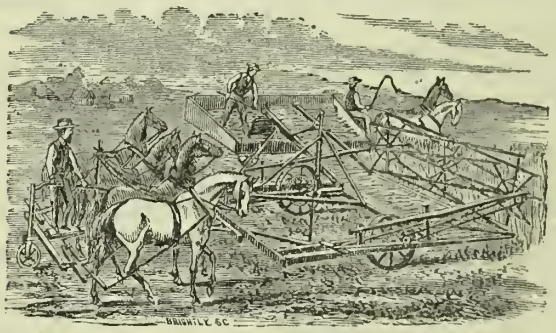
The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merits. They will do better work and will outlast two of almost every other make of machine.

Farmers, BUY A BUCKEYE in preference to all others.

With Adjustable Reels.

IRON WHEELS.

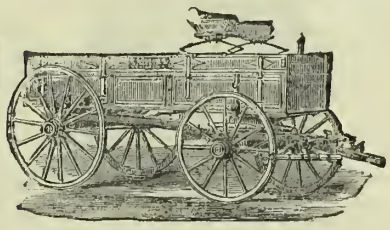


SHORT FRAMES.

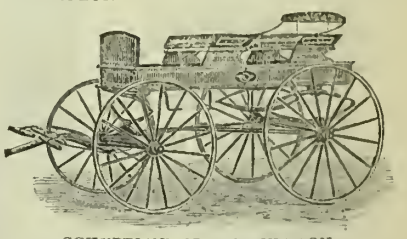
Springs to raise Cutter-bar.

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.



SCHUTTLER FARM WAGON.



SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

MARCUS C. HAWLEY & CO.,

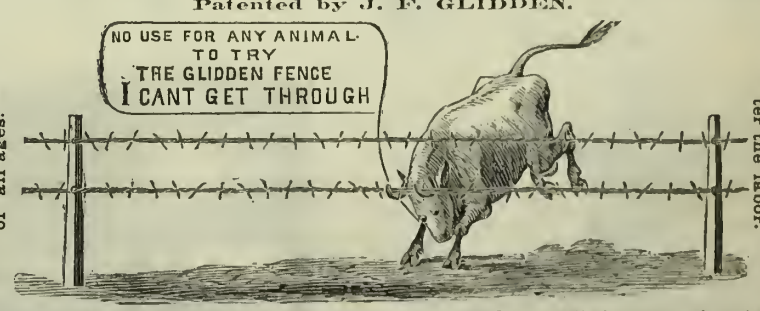
San Francisco and Sacramento, Sole Agents for the Pacific Coast.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

McCormick's Mowers and Reapers.

☞FARMERS wanting to purchase Mowers or Reapers this season will serve their own interest by examining the McCormick Machines before purchasing. Every McCormick Machine sold is guaranteed to give satisfaction to the purchaser, if correctly set up, or purchase money returned.

McCormicks' character as the inventor of the Reaping Machine is national. Their experience in the manufacture of Mowing and Reaping Machines, and improving them, extends over the past thirty years. Their facilities for manufacturing are the most complete, and the capital invested in the business the largest of any manufacturers in their line in the world. This of itself is a safe guarantee to those who patronize them that they will be well treated.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

THE RURAL PRESS is a first-class agricultural journal, and so far as our experience goes, second to none in the United States.—San Luis Obispo Tribune.

LIBERAL ADVANCES ON CONSIGNMENTS.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

NOTICE TO THRESHERS.

WANTED—TO EXCHANGE,

A Rice's Straw Burning Engine for a Wood Burner.

For further particulars address J. W. RILEY, care of Dewey & Co., 224 Sansome St., San Francisco.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, some fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

The Mining and Scientific Press, Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & Co., San Francisco.

More than double the number of Farmers and their families read the PACIFIC RURAL PRESS than any other journal on this Coast.

Lands and Homes for Sale.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY	Nord	J. REGENSBURGER	S. F.
J. VOLLMAR	S. F.	A. W. THOMPSON	Petaluma
J. D. BLANCHAR	Napa	F. A. KIMBALL	San Diego
C. MITCHELL GRANT		I. G. GARDNER	S. F.
G. P. KELLOGG	Salinas.		

500,000 ACRES

Of the choicest farming land in CALIFORNIA, subdivided into small farms of from 40 to 500 acres, for sale on favorable terms.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 40 California Street, S. F

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good bargain. The grain on it is now in No. 1 order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfskill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

FOR SALE CHEAP.

A place of one hundred and seventy to two hundred acres, adjoining Yountville, Napa valley, near R. R. depot. There is on it a bearing vineyard of foreign Grapes; also, small orchard of Cherries, Peaches and Apples. The land is bottom and hill. Over two thousand cords of wood can be cut. Will be sold in part or whole, to suit. Apply to

G. C. PEARSON,
Vallejo, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't		I. G. GARDNER	V. Pres't
G. P. KELLOGG, Treasurer		A. W. THOMPSON	Att'y
I. O. STEELE	San Mateo	CHAS. LAIRD	Salinas
A. WOLF	Stockton	A. D. LOGAN	Colusa
W. H. BAXTER	S. F.	G. W. COLBY	Butte Co
J. C. MERRYFIELD	Dixon	C. J. CRESSEY	Oakland
A. B. NALLY	Santa Rosa	E. W. STEELE, S. L. Obispo	

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$3,026,378.00
TOTAL PREMIUMS	63,306.49
LOSSES PAID	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,
Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - - $100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors.—Wm Erkson, L. F. Ohipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, O. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Live Stock Notices.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 500 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular.

LANDRUM & RODGERS,
Watsonville, Santa Cruz Co., Cal.

FOR SALE.

The Pure Bred Short-horn Cow, "BERTHA THE 27TH;" warranted to milk Eight gallons a day, and make Seventeen and One-half pounds of butter per week. Price, $1,000. Also her Heifer Calf, one month old. Price, $250.

JOHN B. REDMAN,
Marin County, Cal.

HEALD'S Business College.

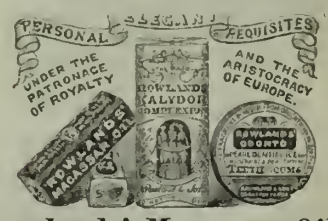
24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, **E. P. HEALD,**
President Business College, San Francisco, Cal.



Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy two years. ROWLANDS' ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

MENZO SPRING,

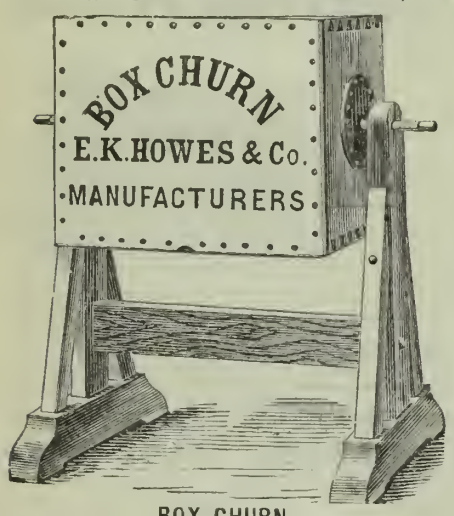
Manufacturer of

Dr. Bly's Patent Artificial Limbs.

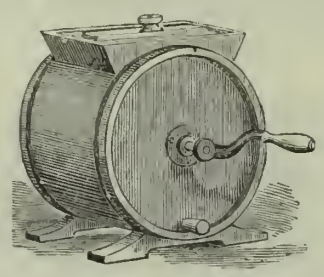
OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco
eowbp

E. K. HOWES & CO.,

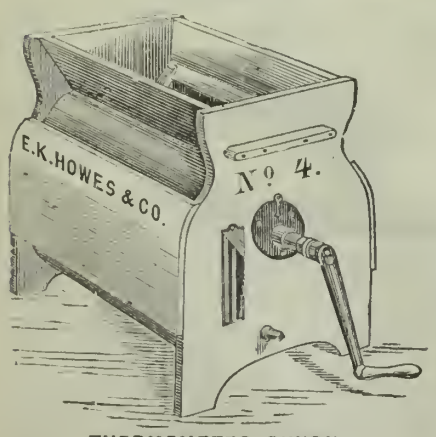
NOS. 118, 120 and 122 FRONT STREET, - - - - SAN FRANCISCO.



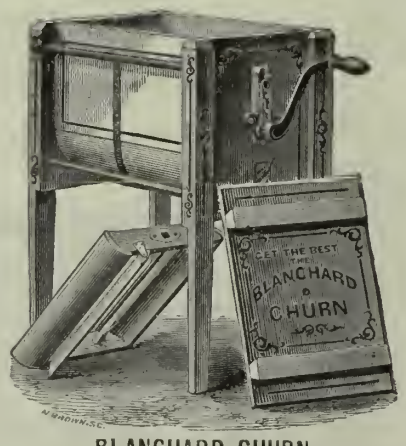
BOX CHURN.



CYLINDER CHURN AND DASHER.



THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers and Molds, Butter Tubs, (35, 50 and 60 Pounds), Butter Kegs—Plain and Gal. Hoops—Wholesale and Retail.

Send for Price-List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 12th, 1876.

There has heen, during the week, a quiet tone in most of the leading liues of agricultural produce. Grain has ruled quiet, and transactions have heen very limited. In Wool there has been a lsrge trade during the early part of the week, and receipts have heen largor.

The decline in Wheat, which set in just hefore our last report, has had a marked effect upon quotations and trausactions.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	Cal. Averaoe	Club.
Thursday	9s 10d@10s 2d	10s 2d@10s 9d
Friday	9s 9d@10s —	10s —@10s 6d
Saturday	9s 9d@10s —	10s —@10s 6d
Monday	9s 9d@10s —	10s —@10s 6d
Tuesday	9s 8d@10s —	10s —@10s 6d
Wednesday	9s 8d@10s —	10s —@10s 6d

To-day's cahle quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 3d@12s 6d	12s 8d@13e —
1875	9s 3d@ 9s 7d	9s 5d@ 9s 10d
1876	9s 8d@10s —	10s —@10s 6d

It will he noticed thst the downward tendency has continued during the week.

The Foreign Market.

It will be seen that the English trade authorities trace the decline in their markets to the large stock ready for sale. The *Mark Lane Express*, in its review of the situation, telegraphed April 10th, says:

"A few weeks of sunshine have made a wonderful improvement in the aspect of the country. An early harvest can scarcely he expected, conseidering the late sowing, but the season will not be greatly retarded. Complaints of the conditions of winter-grown cereals has ceased over a considerable acresge now under crop. Heavy lands, however, are reported still sodden and almost unworkable. A full crop of Wheat must not be expected. The acreage appears to be about five-sevenths of that of 1875. The quantity of Wheat sold for sowing has been considerably less than usual. Trade has been limited during the past week, and the temporary advance in Wheat lost. The return of dullnoss is not surprieing, conseidering the heavy stocks at Liverpool and elsewhere, showing that although the stocks in London have declined almoet a third since the end of Decemher, yet elsewhere supplies have equaled the consumption, and been no diminution of stock. Still there appears to be sufficient firmness in Wheat to prevent a very marked decline."

Grains on Hand, April 1st.

We have received an early copy of the following circular: "The San Francisco Produce Exchange returns thanks to their friends who kindly furnished them with statietics, and offor the following quartorly report of Broadstuffs and Feed Grains on hand April 1et, 1876. They also heg to say that the report emhraces full returns of Wheat from nearly every portion of the State, while the returns of Feed Grains have been very moagre and unsatisfactory." The following is the report:

	Flour Bbls.	Wbt Ctls.	Barl'y Ctls.	Oats Ctls.	Corn Ctls.
S. F., Oak. W. & harbor	32,084	225,085	78,689	10,579	3,634
Coast and Sonoma	1,650	42,540	7,618	5,800	.....
Napa V., Vallejo & C P R	11,5 0	189,570	41,6 0	60	.....
Sacramento Valley	1,369	253,863	61,000	200	20,550
L. Sac, S. Joaquin & S bay	.....	42,020	12,880	.....	.....
S. F. bay, east side	.....	64,143	87,663	.....	200
S. Leandro to Livermore	.....	4,785	45,014	.....	1,500
Stockton & San Joaquin	.....	53,890	13,848	148	.....
Redw'd Hollist'r, Alviso	500	63,021	59,374	950	.....
Salinas and Pajaro	.....	2,900	36,100	1,500	65,400
Southern Coast	1,650				
Totals	48,744	1,214,759	457,586	22,237	91,284

320 ctls of Rye are reported from the city, and 600 ctls from the Southern coast. Total of Rye, 922 ctls.

W. H. WALKER, Secretary.

Freights and Charters.

Very little indeed has been done in charters for immediate shipment of Wheat to Liverpool. Only ono vessel has heen chartered, the ship *Sonora*, at £2 2s 6d. It is reported that some 20,000 tons has already been chartered for July to November loading on a hasis of £3@ £3 2s 6d. The disengaged tonnage now in port consists of 20 vessels, aggregating 19,632 tons.

Cutting Sacks in Loading.

The freight circular of David Brown & Co., of London, meutions a matter of interest to grain shippers as follows:

"We are desirous of pointing out to those shipowners interested in the grain trade (more particularly that of San Francisco), the importance of requesting their captains to see that none of the grain bags are cut by the stevedore in stowing the cargo. It has been the practice for some time past to cut a few for stowage purposes, and the receivers on this side are now making claims for damage sustained in consequence; in some cases endeavoring even to show that not only has the cutting of the bags caused damage to the Wheat thus bulked, by heating, but that the loose grain has aided the spreading of any other damage which the cargo may have sustained from sea water, etc. According to English law, the cutting of bags is illegal, and, therefore, we cannot too strongly urge this matter upon the notice of ehip-owners. At the present time we are defending a claim against an American sbip for upwards of £3,000, which claim is based, to a groat extent, on the above montioned grounds."

The Silver Trouble.

There seems at present to be a movemont which promises to close up the gap hetween gold and silver coin and free the trade from the ruinous discount which has prevailed. The movement to reduce the value of the trade dollar in trade to 90 cents, which commenced three or four days ago, has already become so general that it is rapidly disappearing from circulation, and a few days more will see the last of it. Thoy are being bought up by the banks to such an extent that silver coin is becoming scarce, and the discount is decreasing. With the trade dollar out of the way, thore is none too much silver in circulation for the requirements of trade, and as this coin disappears half dollars will appreciate in value. Monday hrokers scoured the town, offering to buy half dollars at 7 per cent. discount, which is an improvement of fully 1 per cent. since Saturday.

A Rumor About the New Crop.

It is currently reported that 1,000 tons good Sau Joaquin shipping Wheat of the new crop, for delivery hetween the 20th of June and the 20th of July next, was offered on 'Chauge Monday for $1.65 asked and $1.50 per ctl hid.

Domestic Produce.

The following table shows the bay receipts of Domestic Produce for the week endiug at noon to-day, as compared with the receipts of the previous weeks:

Articles.	Week Mar. 22.	Week Mar. 29	Week April 5.	Week Apr. 12.
Flour, quarter sacks	36,851	29,244	56,790	32,220
Wheat, centals	68,652	57,717	63,659	27,009
Barley, centals	13,465	17,731	8,756	11,872
Beans, sacks	1,299	1,048	521	1,091
Corn, centals	.....	1,135	54	1,497
Oats, centals	842	1,139	2,197	4,615
Potatoes, sacks	7,672	168	7,351	10,500
Onions, sacks	700	413	744	1,414
Wool, bales	305	1,442	2,391	3,769
Hops, bales	40	50	87	149
Hay, bales	4,196	3,401	1,012	1,292

Bags—We hear of nothing new in Bags. A large auction sale is advertised to take place just after we go to press. Quotstions are unchanged.

Beans—Beans are unchanged.

Barley—Barley is quiet at former prices. We note the following sales: 600 sks Bay, $1.22½, gold; 500 do Bay Feod, $1.25, half silver; 200 sks Bay Feed, $1.27½, half silver; 200 do do, $1.30, all silver; 700 do Coast Feed, $1.22½, half silver; 500 sks fair Bay Feed, $1.25, silver; 800 sks good Bay Feed, $1.25@1.27½, half silver.

Corn—Corn rulos at previous quotations. We uote sales: 500 sks large Yellow, $1.22½ per ctl, half silver; 200 sks largo Yellow, $1.25 per ctl, half silver; 300 sks large Yellow, $1.25; 100 do small do, $1.42½; 100 do do, $1.37½ per ctl, half silver; 79 sks small round Yellow, $1.50 per ctl—trade dollars or greenhacks, at the option of buyer.

Dairy Produce—Butter is selling at a slight advance and ie in good demand. Cheese continues to arrive freely, and is weaker.

Eggs—Eggs have advaucod a point, because of the demand for Easter week.

Fruit—There has been a little life awakened in the Fruit market hecause of novelties introduced. A receipt of preserved Grapes is mentioned elsewhere. Howe & Hsll have just received from Bullock & Co., of New York, 150 boxes Messina Oranges, prohahly the first shipment of the kind ever brought to this market. They much resemble the California fruit in appearance, are a little sweeter, a little less juicy, and are about the same in thickness of the skin. They are very handsome, and will he likely to sell well. Strawberries are still coming forward slowly, and command fancy prices. Apples are quoted at $2.50@4.50 per hox, delivered. Pears are out of market. The crops of some of the large Orange groves of Los Angelcs have been entirely gsthered, and the supply from that source will not last much longer. A few Mexican and an abundance of Tahiti Oranges, however, will keep the market stocked.

Hay—Hay maintains its range from $13 to $19 per ton, according to quality. The market is, however, a little weaker in tone, hecsuse of the approach of the new crop. We note sales: 20 tons coarse Wheat at $16; 18 do Mixed at $14.75 per ton; 45 tons Stock at $13; 20 do Wild Oat at $16; 48 tons choice Wheat at $19.50; 38 do poor Oat, 13.25; 30 do ordinary Barley and Alfalfa, $13@14 per ton.

Hops—There is nothing new in this market. The receipts are larger than usual, but the trade is restricted to small jobbing lots. The New York trade for the week ending March 31st, is reviewed by Emmett Wells as follows:

"We have to report a quiet market, with the price one to two cents lower on all descriptione of new Hops. It has been found that the slightest advance put upon the price here invariably stops, or rather lessens the export demand. In a short time we shall know how the roots have wintered; should reports come in favorably from all sources, we may count upon a large crop next season. The increase in the new acreage of last spring, and which will come into hesring next fall, will, it is believed, give us one-quarter to one-third more hops than were produced in 1875, so that if we have 40,000 bales to spare for export this season, next season we shall have at least 50,000 hales to spare, provided the roots have not been injured, and the crop comes on all right. England, witu her 70,000 acres under Hop culture, with a full yield, will not want any Hops from us next season."

Oats—Oats maintain their exalted position firmly. We note sales: 185 sks good Coast feed at $2.57½, gold; 500 do good Oregon, priva te—quotable at $2.75; 157 sks good Coast at $2.57½, gold; 200 sks Salt Lake at $2.50. The best are selliug up to $3 per ctl, half silver.

Onions—Onions aro perhaps a shade weaker, although some sales have been made at the extreme rates of last week. We note sales: 60 sks Union City at $3.75, half silver; 50 do Bays, $3.62½; 85 sks choice Union City, $3.25; 100 sks Union City at $3.25, half silver. On Saturday 140 sks choice Union City brought $3.50. To-day the best are offered at $3@$3.25 ₱ ctl.

Potatoes—Potatoes are in abundant supply. Salt Lakes are more plenty and cheaper. There is a lower tendoncy in the trade. We note sales: 330 sks Salt Lake, $2.10; 200 do do, $2.15; 150 de do, $2.25; 700 do fair Oregon, $1.75; 160 do good Tomalos, $2.17½ ₱ ctl, half silver; 500 sks good to choice Petaluma and Tomales at $2@$2.10, half silver; 200 do good Humboldt, $2 ₱ ctl, all silver; 200 sks good Humboldt at $2.05, half silver; 50 sks choice Petaluma at $2.22½.

Provisions—The demand for cured meats, lard, etc., is increasing and the markot is very firm. Fresh Beef, best quality, is not abundant. There is plenty of medium and poor grades offered. Fresh Mutton is abundant and the market is weaker under largo arrivals. Hogs are firm and best quality are scarce, commanding 8¼@8½c groes.

Poultry and Game—Poultry is generally unchanged. Heus are lower.

Vegetables—Green Vegetables are generally more abundant and lower. Asparagus advances a little today. Rhubsrb is much lower.

Wheat—The decline of the cahlo has effected a dead feeling. Trausactions have been at a lower price and in small amount. We note sales: 500 sks Shipping, mixod with chess, $1.75; 900 sks Coast milling, $1.75; 1,420 sks fair Shipping, $1.80; 3,000 sks choice Shipping, $1.90@1.92½; 1,000 do good Milling, $1.92½, 1,500 do, $1.90; 2,600 sks fair Shipping, $1.75 por ctl; 1,500 sks Shipping, in lots, $1.80@1.90.

Wool—Receipts of Wool are larger and the trade is beginning to show itself. We have to report the following sales: 135,000 lbs. at 12½@18c, according to quality; 49 bales Southern, 15½c; 41 bales Southern, year's clip, 18c; 21 bales Southern, free, 8 mouths' clip, 15½c; 64 do do, 17½c; 7 do do, 17c; 145,000 lbs. in lots, to quality, 16@18c, free, two-thirds of it year's clip. Northern Wools command 18@20c, but little is arriving. The market may be noted a little weaker than last week. It is currently reported that Eastern dealers have telegraphed their agents here that they cannot stand opening prices, and this leads them to hold off a little. The Eastern Wool markets are reported hy telegraph as follows:

NEW YORK, April 8th.—The past week developed no new festures in the Wool marke t; trade continues exceedingly quiet, with prices wholly in the buyers' favor; holders still exhibit a disposition to realize, hut buyers are scarce and few. Those in need of supplies continue to pursue the hand-to-mouth policy, and the consequence is the business accomplished is exceedingly limited. The demsnd for California is very light, and pricoe are weak. Sales for the week are: 75 hales Australia, part at 46c; 3 000 lbs. spring California, 2,370 hsles fall do, 14@15c; 5,000 lbs. low Texas, 18c; 3,200 lbe. Western do, 24½; 2,735 lbs. E-st India, 25c; 6 000 lbs. Smyrna, 14c; 60 bags super pulled, 33½c; 23,000 lbs. X and XX Ohio fleece, 45@46c; 2,500 lbs. heavy do, 37e.

BOSTON, April 8th.—California Wool is dull. Sales are lower than at any time for years past. Transactions include 195,000 lbs. at 31c for spring and 16@23c for fall. Pulled Wools are quite dull, and can only be forced off st low figurcs. The stock is large. Sales of the week havo heen 150.000 lbs. at 25@47½c for super and X, principally for 40 to 45c for good lincs of super, and 38@41c for X. Some 135,000 lbs. of combing have been sold at 48@53c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., April 12, 1876.

BEANS.

Bayo, ₱ ctl	3 50	@	3 75
Butter	2 00	@	2 50
Pea	1 75	@	2 12½
Pink	—	@	2 50
Sm'l white	1 85	@	2 00
Lima	2 37½	@	2 40

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per ₱	22½	@	27½
Point Reyes	27½	@	30
Firkin	25	@	27½
W'st'n Reserve	16	@	20
New York	—	@	—

CHEESE.

Cheese, Cal., ₱ lb	13	@	16
do Old	10	@	15
Eastern	15	@	20

EGGS.

Cal. fresh ₱ doz	30	@	32½
Ducks'	—	@	25
Oregon	22½	@	27
Eastern	20	@	22½

FEED.

Bran, per ton	—	@	20 00
Corn Meal	29 00	@	30 00
Hay	15 00	@	18 00
Middlings	22 50	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	—	@	65

FLOUR.

Extra ₱ bbl	5 75	@	6 25
Superfine	4 75	@	5 25

FRESH MEAT.

Beef ist quality ₱ lb	8	@	9
Second do	5½	@	6½
Third do	3½	@	4½
Spring Lamb	8	@	8½
Mutton	4½	@	5½
Pork, undressed	8	@	8½
do, dressed	11	@	11½
Veal	5	@	7
Milk Calves	8	@	8½

GRAIN, ETC.

Barley, feed ctl	1 20	@	1 25
do brewing	1 30	@	1 32½
Chevalier	1 25	@	1 45
Corn, White	1 15	@	1 25
do Yellow	1 15	@	1 25
Oats	2 50	@	2 75
Milling	—	@	3 00
Rye	1 65	@	1 75
Wheat, shipping	1 85	@	1 90
do milling	1 90	@	1 95

HIDES.

Hides, dry	15	@	15½
do wet salted	6	@	7

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	12½	@	15
do Strained	8	@	13

HOPS.

New crop	10	@	13

NUTS—Jobbing.

Alm'ds h'rd sh'l ₱ lb	8	@	10
do, soft sh'l	16	@	18
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	9	@	10
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	2 50	@	3 50
Stockton	2 50	@	3 50

POTATOES.

Petaluma, ₱ ctl	2 00	@	2 12½
Salt Lake	—	@	2 12½
Sac River	1 90	@	2 12½
Humboldt	1 75	@	2 12½
Early Rose	3 00	@	3 25
Sweet	—	@	—
New, lb	4	@	6

POULTRY & GAME.

Hens, per dz	7 50	@	8 00
Roosters	9 00	@	10 00
Broilers	5 50	@	7 50
Ducks, tame, dz	11 00	@	12 00
do Mallard	—	@	5 00
do Canvass	—	@	6 00
Geese, per pair	2 50	@	3 50
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	21	@	23
do Dressed	22	@	24
Quail, per doz	—	@	2 50
Snipe, Eng., doz	2 00	@	2 50
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 50
Hare, per doz	1 50	@	2 00

PROVISIONS.

Cal. Bacon, L't, lb	16½	@	17
do Medium	16	@	16½
do Heavy	—	@	15½
Lard	15	@	17½
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'rn Sboudd's	—	@	10
Hams, Cal	14	@	14½
do Armour	15½	@	16
do Worster's	16	@	16½
do Dupee's	16	@	16½
do Davis Bros'	16	@	16½

SEEDS.

Alfalfa, Chile lb	8	@	10
do California	11	@	12
Canary	20	@	—
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	11	@	13

TALLOW.

Crude, ₱ lb	6½	@	7
Refined	9½	@	10

WOOL, ETC.

SPRING—

Seedy, ₱ lb	11	@	12½
Choice long free	—	@	19
do short	15	@	16½
Burry	—	@	12½
Oregon	—	@	—

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., April 12, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	—	@	—
Tahiti, do	30 00	@	35 00
Cal. do	25 00	@	60 00
Limes, Mexican, ₱ M	10 00	@	15 00
Malaga Lemons, ₱ bx	—	@	—
Cal. ₱ 100	2 00	@	2 75
do Sicily ₱ b'x	12 00	@	—
Bananas, ₱ bnch	2 50	@	4 00
Cocoanuts, ₱ 100	7 00	@	8 00
Pineapples, ₱ dz	6 00	@	—
Apples, ₱ box	1 87½	@	—
do Choice	2 00	@	4 00
Blackberries	—	@	—
Figs	—	@	—
Huckleberries	—	@	—
Strawber's ₱ lb	25	@	50
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ oh	—	@	—
Quinces ₱ bx	—	@	—
Cranberries ₱ bbl	13 00	@	14 00
Peaches, ₱ bx	—	@	—
Pears, ₱ bx	1 75	@	3 00
do Choice	—	@	—
Crab apples, ₱ bx	—	@	—

DRIED FRUIT.

Apples, ₱ lb	9	@	12½
Pears, ₱ lb	8	@	13
Peaches, ₱ lb	12	@	12½
Apricots, ₱ lb	14	@	15
Plums, ₱ lb	5	@	6
Pitted, do ₱ lb	17	@	22
Raisins, imported	3 25	@	3 75
Cal. Raisins	5	@	10
Black Figs, ₱ lb	5	@	10
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10

VEGETABLES.

Asparagus ₱ lb	5	@	6½
Beets ₱ ctl	—	@	—
Cabbage, ₱ 100 lbs	—	@	1 00
Carrots, per ton	12 50	@	15 00
Cauliflower, doz	1 00	@	1 25
Celery, doz	50	@	75
Garlic, ₱ lb	—	@	5
Green Peas ₱ doz	—	@	7
Green Corn ₱ doz	—	@	—
Sum'r Squash ₱ box	—	@	—
Marro'fat Squash, tn	20 00	@	25 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Parsnips	—	@	—
Shell Beans	—	@	—
Peppers, green, dz	—	@	—
Okra	—	@	—
Cucumbers, ₱ doz	2 25	@	3 00
Tomatoes, box	—	@	—
Egg Plant, bx	—	@	—
Rhubarb	6	@	10
Lettuce	—	@	—
Turnips, pr ctl	75	@	1 00
Mushrooms, lb	—	@	—

GENERAL MERCHANDISE

WHOLESALE.]

WEDNESDAY M., April 12, 1

BAGS.

Eng. Stand Wht	12	@	12½
Neville & Co's Hand Sewed	12	@	12½
24x36	—	@	—
24x40	—	@	—
Machine do 21x40	13	@	14
" " 23x40	12½	@	13
" " 22x40	11½	@	12½
" " 22x36	11	@	11½
Flour Sacks ¼e	9½	@	11
" " ⅛s	6½	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12½	@	14½
do 45-in	9½	@	10
do 40-in	8	@	8½
Wool Sacks, 3½ lbs.	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	18
single seam do	—	@	—
Bean Bags	7½	@	8

CANNED GOODS.

Ass't'd Fruits in 2½ ₱ cans	2 75	@	3 60
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	65	@	1 90
do hf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	—	@	10 50
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	16	@	18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Soranton	13 00	@	16 00
Vancouver's Isl	1 50	@	2 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in cs	25	@	—
Oilcory	27	@	—

FISH.

Sac. Dry Cod, new	4	@	4½
cases	6	@	7
do boneless	8½	@	10
Eastern Cod	7½	@	8
Salmon in bbls	7 00	@	8 00
do ½ bbls	3 75	@	4 00
do 2lb cans	2 25	@	2 40
do 1lb cans	1 25	@	1 40
do Col. R. ½ lb	5 00	@	5 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No.1, ½ bls	12 50	@	13 00
" Extra	—	@	12 00
" in kits	2 20	@	2 75
" Ex mese	1 90	@	4 50
" Ex mess, ½ bs	—	@	12 00
Pio'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Aesorted size, keg	3 75	@	4 00

OILS.

Pacific Glue Co Neat F't No. 1	1 00	@	90
Pure	—	@	—
Castor Oil, No. I	—	@	1 15
Baker's A A	—	@	1 15
Cocoanut	52	@	55
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	—	@	70
do boiled	—	@	75
China nut in os	65	@	67½
Sperm, crude	1 50	@	1 65
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	50
Lard	—	@	1 20
Oleophine	—	@	28
Devoe's Bril't	25	@	27
Long Island	—	@	25
Eureka	26	@	27
Devoo's Petro'm	25	@	27½
Barrel kerosene	23	@	25
Olive	—	@	3 50
Downer Kerose'e	—	@	37½
Elaine	37½	@	—
Gas Light Oil	23	@	25

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	—	@	—
Hawaiian, ₱ lb	7¼	@	7¾
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00

SOAP.

Castile ₱ lb	10	@	11¾
Common brands	4½	@	6
Fancy do	7	@	9

CANDLES.

Grant's	16½	@	17
Mitchell's	20	@	22

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26¾
Citron	28	@	30
Nutmeg	95	@	97½
Whole Pepper	14¾	@	15¾
Pimento	16	@	17
Gr'nd Allsp'ce	—	@	12½
do Cassia do	—	@	50
do Cloves do	—	@	50
do Mustard do	—	@	20
do Ginger do	—	@	00
do Pepper do	—	@	00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12
Circle A crushed	—	@	12
Powdered	—	@	12¼
Fine crushed	—	@	12
Granulated	—	@	11¾
Golden C	—	@	10½
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	70
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moynne	60	@	1 00
Gunpo'der, Cant	75	@	1 00
do Pingsuey	50	@	80
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ ohests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

TOBACCO—Jobbing.

Bright Navys	50	@	85
Dark do	50	@	55
Paces Tiu Foil	—	@	75
Gregory	70	@	—
Dw. f Twist	65	@	75
Light Pressed	70	@	80
Hard do	50	@	60
Conn. Wrap'r	40	@	60
Penn. Wrapper	20	@	45
Ohio do	15	@	20
Virgi'a Smok'g	45	@	1 00
Fine ct che'g, Kr	8 50	@	9 50
Fine cut chewing, bucts. ₱ lb	75	@	—
Banner fine cut	—	@	9 00
Cal Smoking	37	@	1 00

TURPENTINE.

Eastern	51½	@	55

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., April 12, 1876.

POULTRY, GAME.

Chickens	87	@	25
Eggs, Hens	35	@	—
do Ducks'	—	@	20
Turkeys, ₱ lb	25	@	—
Ducks, each	1 00	@	1 25
Geese, wild, pair	—	@	—
Tame, ₱ pair	4 00	@	5 00
Snipe, ₱ doz	—	@	—
do English	—	@	3 00
Quail, per dozen	—	@	—
Prairie Ch'

Bees.

The Extractor.

At the recent meeting of the Northeastern bee-keepers' association, H. A. Burch took ground against the nse of the extractor as follows:

It is not necessary to enumerate the evil consequences which have attended the nse of the honey extractor on an extensive scale in the production of snrplns honey, as they mnst be patent to all. The vast amounts of raw, unripened extracted honey, together with the sugar and glucose that is sold for honey, having nearly ruined the sale of the liqnid article and lessened the price of all honey, there remains but one alternative that will give us any relief, viz: To secure our surplus in the comb in such a manner that it will command a ready sale at a fair price. To secnre this end it must be stored in neat and attractive packages, holding from two and one-half to four ponnds, gross weight. The glass box, weighing two and a half ponnds, we have found to be much the most profitable, since we have been able to secure jnst as many pounds of honey, as by raising the larger sized packages. When it shall become generally known that just as many pounds of comb honey can be obtained in any season, in small glass boxes, as can be secured in liquid form with an extractor, it seems to us that onr honey extractors will go out of general use. We are often asked this question: "Is not an extractor a necessary adjunct to an apiary, when run to box honey?" We can conceive of no possible use for it, except to empty combs from hives in which the bees have died in winter. One hundred swarms that are run to extracted honey will keep an apiarian busy for four months of the year to produce the honey and six more to sell it; while three times that nnmber can be rnn to the little boxes with less labor in the production, and not more than one-sixth the labor is required for marketing it. Such, at least is our own experience, and we have tested both systems pretty thoroughly. To insure this most desirable result, the shallow frame of not more than eight and one-half inches in depth, the small hive of 1,500 (or less) cubic inches capacity, and prolific Italian queens are indispensable requisites.

CHUFAS AND JAPAN PEAS.

The introduction of those crops throughout the South will enable us to keep our stock and fill our smokehouses as cheaply as it can be done at the West. The Chufa is planted in a ridge like potstoes, yields on common land 200 bushels per acre of the richest feed, unequalled for fattening hogs, poultry—and children. One acre will fatten more hogs than ten acres of the best corn, besides furnishing grazing all summer. For the truth of these claims wo refer to U. S. Commissloner of Agriculture, Washington, or to any agricultural paper in the South. Price, by mail, postage paid, 20c a package, 40c a pint, 75c a quart; by express $4 a peck, $15 a bushel.

The Japan Pea fully established its merits several years ago, and is now in universal demaud. It grows upright like a cotton stalk, is cultivated like corn, and yields from 150 to 300 bushels per acre on ordinary land. Stock of all kinds relish it and thrive highly on it without otber foed. Also excellent for table use (after boiling for about a week). Price, by mail, postage paid, 15c a package, 30c a pint. 50c a quart; by express, $3 per pack, $10 per bushel. These seeds aro so scarce and costly that we cannot make any discount to wholesale dealers or Granges.

When Southern planters grow their own stock-feed and fatten their own hogs we shall hear no more of hard times and "middlemen," for this will put an end to both. If you fear to invest largely it will cost hut a trifle to try these seeds, and unless your experience differs from all others you will bo forever thankful for the trisl. Address,

A. F. WHITE & CO.,
Nashville, Tenn.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premiuns awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,
19 New Montgomery Street, S. F.
☞Grand Hotel Building.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydranlic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS COMPANY, 609 Sacramento St., S. F

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,
19v8-tf Petaluma, Sonoma Co., Cal

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus)
Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, rangfrom $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.
November, 1875.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.
CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.
B. B. WILLIAMS & CO., Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address
WM. SEXTON, Nurseryman, Petaluma, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes! They *"sow like a charm;" no packing* of seed in the hopper, *no crushing* it, *no pausing* or *waste* at the ends, no *irregularity* in depth, no *springs* or *gearing* to wear out, no *"skips,"* no noise, *no equal!* THE DOUBLE WHEEL HOE works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable COMBINED MACHINE possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our NEW HORSE HOE, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level* or *ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. **We must have a Live Agent in Every Town.**

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

*,*My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain Instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,
(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

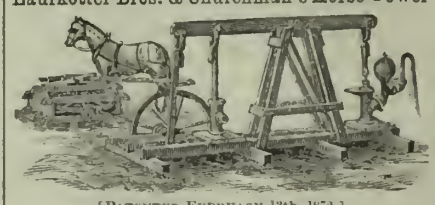
Agricultural Articles.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

ÆTNA MOWER AND REAPER

Price of Mower, $100.

The Latest and Best. Weight, 650 lbs; cuts four feet, four and one-half inches. It has ALL THE IMPROVEMENTS of every first-class machine, besides a DOUBLE SPEED (which no other has), giving a fast or slow speed to the knife or sickle—an important advantage. Send for Illustrated Pamphlet, and don't fail to see the "ÆTNA," before buying. For sale only by

BERRY & PLACE, San Francisco,
(Successors to Treadwell & Co.)

☞We guarantee to keep "extras" on hand from year to year for this machine.

Straw-Burning Attachment.

KING'S PATENT.

THE ONLY SUCCESSFUL BURNER YET INTRODUCED.

Having secured the exclusive right to manufacture and attach to engines, J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of threshers to notice why it is superior to all other Straw-Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

The Attachment

Can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced County.

All orders addressed to J. R. KING, Patentee, in care of the Globe Iron Works, or H. C. SHAW PLOW CO., Stockton, will receive prompt attention.

☞Send for Circulars.

JOHN CAINE,
Proprietor Globe Iron Works.

MATTESON & WILLIAMSON'S

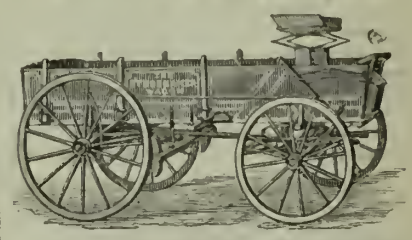
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. E. AMES, Gen. Agent,
Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

LEA & PERRINS'

CELEBRATED

Worcestershire Sauce.

Declared by connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed. To be obtained of

MESSRS. CROSS & CO.,
San Francisco.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

BEFORE PAINTING YOUR HOUSES

Send for Sample Card and Circular and Carefully Examine the

AVERILL CHEMICAL PAINT,

MIXED READY FOR USE.

This Paint is prepared in liquid form, READY FOR THE BRUSH. It requires no addition of oil or spirits. It is composed of the best materials known to the trade—Pure Linseed Oil, Strictly Pure White Lead, Pure Zinc, and the finest of coloring matter for tinting. It is the BEST, CHEAPEST, MOST DURABLE AND BEAUTIFUL PAINT IN THE WORLD. Is just what is wanted by every farmer, mechanic and everybody who has a house, fence, barn, or wagon to paint. Requires no skilled labor, as any one can apply it who can handle a brush. It is put up in cans of any required size, from a quart to five gallons, and is SOLD BY THE GALLON. It gives a firm, elastic and brilliant glossy finish, and will neither crack, peel or wash off, like most paint in common use, but is proof against rainstorms and all action of the elements. Buildings painted with this paint five years ago look fresh and like new to-day and will need no more paint for years. Of no other paint can this be said and proved.

The Averill Chemical Paint Company supply a long-felt want. They not only furnish a Paint more lasting, handsomer, and at the same time cheaper than the best of others, but it is in a liquid form—white and all the fashionable and most exquisite shades—ready for the brush. So that farmers, in fact everybody, can be their own painter if necessary. Indeed, all the buildings upon which the Averill Chemical Paint has been applied, are marvels of beauty.—*Christian Union.*

We know of no subject of such importance to householders as that of a good, handsome, durable paint for their dwellings. Within the past few years we have watched the progress of the Averill Chemical Paint and have had frequent opportunities to test it fully. We think it just the article to supply the need, and give it our hearty endorsement.—*N. Y. Independent.*

From the Thousands of Testimonials sent us, we select the following, which we present for your careful consideration:

A PAINT FOR FARMERS.—Prof. J. B. Turner, Jacksonville, Ill., is a man of great practical knowledge and experience; hence, we attach a great deal of value to the following, from his pen, which we find in the *Prairie Farmer:*

"Some two years ago I sent for and got from a barrel to a barrel and a half of Averill Chemical Paint, of light dun color, which I thought would suit me well enough for all work—houses, doors, blinds, fences, bee-hives, wagons, tools and all. I put two coats upon my residence here, and run over three or four of my smaller farm houses on my farms. With what was left I painted my bee-hives, wagons, wheelbarrows, rollers, harrows, fences, etc., etc., and on all these buildings, implements, tools, gates, etc., the paint is as hard and glossy to-day, so far as I can see, as it was a month after it was put on, and bids fair to hold its own at least for five years to come, (if not ten of them,) better than ordinary white lead and oil does for even two years.

"I have watched it now for about two years with interest and care, and have never found a single spot where it peeled, cracked, or chalked off, as our other paints do. Others who have used this paint like it equally as well. But the point is, I can take one and the same keg and brush, and go over all my buildings, wagons and tools, with no needless waste of paint, brushes or time. It is quite as good for inside finish, as it leaves a coat that shines and washes like glass."—*Moore's Rural New Yorker.*

THE AVERILL PAINTS.—In reply to some inquiries of our readers, we would state that we have given these paints, prepared by the Averill Chemical Paint Company, a full trial, and they appear to possess all that is claimed for them; spreading easily, adhering well, drying soon, and imparting handsome shades of color to the surface covered. Farmers and others who do their own painting, may avail themselves of the convenience of purchasing these paints, of any desired shade, already mixed for use, at a very reasonable price.—*Cultivator and Country Gentleman.*

PLACERVILLE, October 7, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your letter I have to state that for more than six years I have dealt in and used your paint. I have during that time carefully observed its application and use, and from practical knowledge can certify to its unrivalled excellence. During my six years' acquaintance with it, there has not come to my knowledge a single instance of failure in any case where it has been used. All to whom I have supplied it unite in commending it for its superior claims over all other paints now in use. The Averill Paint externally used, or, in other words, exposed to the action of the weather, neither rubs off nor changes color, as do other paints, and will retain its freshness and adhesive property for years. Pure lead and oil will in a short time become dry, and are easily rubbed off; the loss of oil leaves the lead in a dry, oxidized state. As a matter of economy the claims of the Averill Chemical Paint to popular appreciation and general use are beyond question. A house properly painted with it once will be better preserved, and present a neater appearance at the expiration of seven years, than it would if twice coated with lead and oil paints now in use. There can be no question, then, that to use it is both labor-saving and economical. So well assured and convinced am I of its established right to this distinction over all kinds, that had I fifty houses of my own to be painted, the "Averill" alone should be my choice and used.

Yours, very truly, S. J. ALDEN, Druggist.

UNIVERSITY OF CALIFORNIA, BERKELEY, August 16, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your note of the 13th inst., I willingly state that the work done by you in painting the exterior of the North Hall or College of Letters is in every way satisfactory, and the appearance of the building since it was painted excites the favorable comment of all who have seen it. As I have had occasion to use the Averill Paint before, my experience has been such that I prefer it to any and all others when properly applied. I am very truly yours, ROBT. E. C. STEARNS.

Sample Card of Colors Sent Free on Application. Be Sure and Write for One and Examine for Yourself before Buying Any Other.

CALIFORNIA CHEMICAL PAINT CO.

117 PINE STREET, SAN FRANCISCO.

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Cal

H. K. CUMMINGS. 1858. H. H. RALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v28-15

TRADE MARK.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

Dewey & Co. {224 SANSOME ST} Patent Agt's.

RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

Not a Valve, Spring, Cam, Lever or Eccentric about them.

ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.

Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

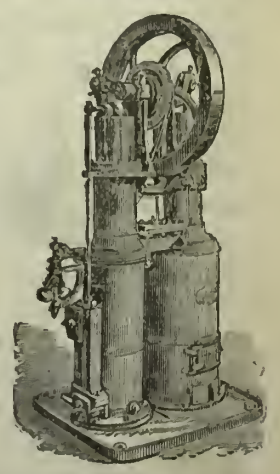
They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

Send for Circular and Price List, or call and see one in operation.

HUNTINGTON, HOPKINS & CO.,

Sole Agents for the Pacific Coast,

Junction of Bush & Market Sts., S. F.



$250 A MONTH--Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

FRANK BROS. & CO.,

349 Market Street, - - - - - - - San Francisco, Cal.

WALTER A. WOOD'S

IMPROVED IRON MOWER

23,507 were made and sold last year. Their immense sale and unprecedented success IN PRACTICAL FIELD WORK, fully establishes their superiority over all other machines for SIMPLICITY and PERFECTION of CONSTRUCTION.

WALTER A. WOOD'S

Chain Rake and Sweep Rake Reaper.

WALTER A. WOOD'S

Harvester and Self-Binder.

The Greatest Labor-Saving Machine of the Age.

COATES' LOCK LEVER SULKY RAKE.

WALTER A. WOOD'S HARVESTER AND SELF-BINDER.

THE CELEBRATED

La Belle Farm and Freight Wagon.

SWEEPSTAKES THRESHERS,

SPECIALLY IMPROVED FOR THE PACIFIC COAST.

HAINES' HEADER,

WITH ALL THE LATEST IMPROVEMENTS.

Chaplin & Tiffin's Revolving Rakes,

Warranted the Best in the Market.

GREAT SALE

—OF—

Thorough-bred Short-horn Cattle and Berkshire Hogs,

To be Sold at Public Auction,

ON THURSDAY, APRIL 20th, 1876,

At the Fair Grounds, Sacramento,

Under the Auspices of the Short-horn Breeders' Association of California.

Consisting of Young Bulls, Cows, Heifers, and the entire herd belonging to the estate of G. N. Sweezy, of Marysville. We would say to the public, and especially to those wanting young bulls to improve their herds, that no better opportunity will be offered than at this sale for parties wishing to purchase, as a large number of the principal breeders of the State have each contributed a few head of choice animals to be sold. Catalogues furnished on application to Cyrus Jones, at Sacramento until April 3d, after that time at San Jose, Cal.

CYRUS JONES, Pres't.

ROBT. ASHBURNER, Secretary.

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

M. FALLON,

Cor. Seventh & Oak Sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns.
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks,

All from Premium Stock of Best Strains.

Fowls of the above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY.

EMDEN GEESE,

Pekin Ducks.

BRONZE TURKEYS.

PRICE-LIST For 1876 Now Ready.

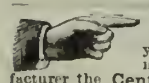
PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

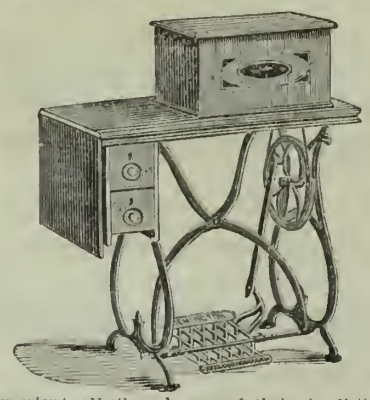


Farmers — Don't waste your money on agents and middlemen, but buy direct from the manufacturer the Centennial Windmill. A first-class 10-foot Rosette wheel. Price $75. Send for Circular.

E. O. HUNT,

37 Fremont street, San Francisco.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel, S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

DESIRABLE RANCH FOR SALE.

Containing 86 acres, every acre of which is the best of soil and in an excellent state of cultivation, and within two miles of Napa City. Twenty acres in bearing vineyard. An orchard of 250 bearing cherry trees, 100 peach, 60 prune and plum, 12 almond, 50 English walnut and Italian chesnut, and one-half acre in currants and blackberries. One pair of excellent farm horses, one three-year-old colt, farm wagon, spring wagon with two seats, and about 100 fowls; house of three rooms, hard finished, barn, chicken house, etc.; furniture, crockery and glassware. An excellent spring near the house. Any person looking for a home and a place that will pay, will find no more desirable place in California. Every implement needed on a ranch will be found on the place, even to an improved Buckeye reaper and mower with self-raker.

Inquire of D. S. TALLMAN, at the Post-Office, Napa or address H. W. HASKELL, Napa, Cal.

ENRIGHT'S PATENT PORTABLE

Wood and Straw-Burning Engines.

Patented July 20th and November 2d, 1875.

Burns Wood or Straw without change, and Coal by changing two plates. Took the Premium at the California State Fair, 1875, as the Best Straw-Burner.

Pioneer Builder of the First Portable Thresher Engine on the Pacific Coast, 1861.

PATENTEE AND BUILDER

OF THE

Best Portable Straw or Wood Burning Thresher Engines, 1876.

Send for Testimonials and Price to

JOSEPH ENRIGHT, San Jose, Cal.

SHERIFF'S OFFICE, SACRAMENTO, Sept. 21, 1875.

MR. J. ENRIGHT—*Dear Sir:* The Straw Burning Engine I bought of you, and which was used in Yolo County, has given us perfect satisfaction. It is everything you represented. We have had no difficulty in generating all the steam required, and the amount of straw consumed can hardly be missed. We find it much safer, on account of fire, than a wood-burner. Many persons, both threshers and farmers, have come to see it run, and all express themselves highly pleased. The opinion of all was, that it is just what we need, being safe and economical.

H. M. LABUE.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

FARMERS write for your paper.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early
Marblehead Mammoth
Stowell's Evergreen
Mexican Sweet, New } Sweet Corn.

Early Canada
Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel
Yellow Globe
White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

SAN FRANCISCO

v8-tf

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, APRIL 22, 1876. [Number 17.

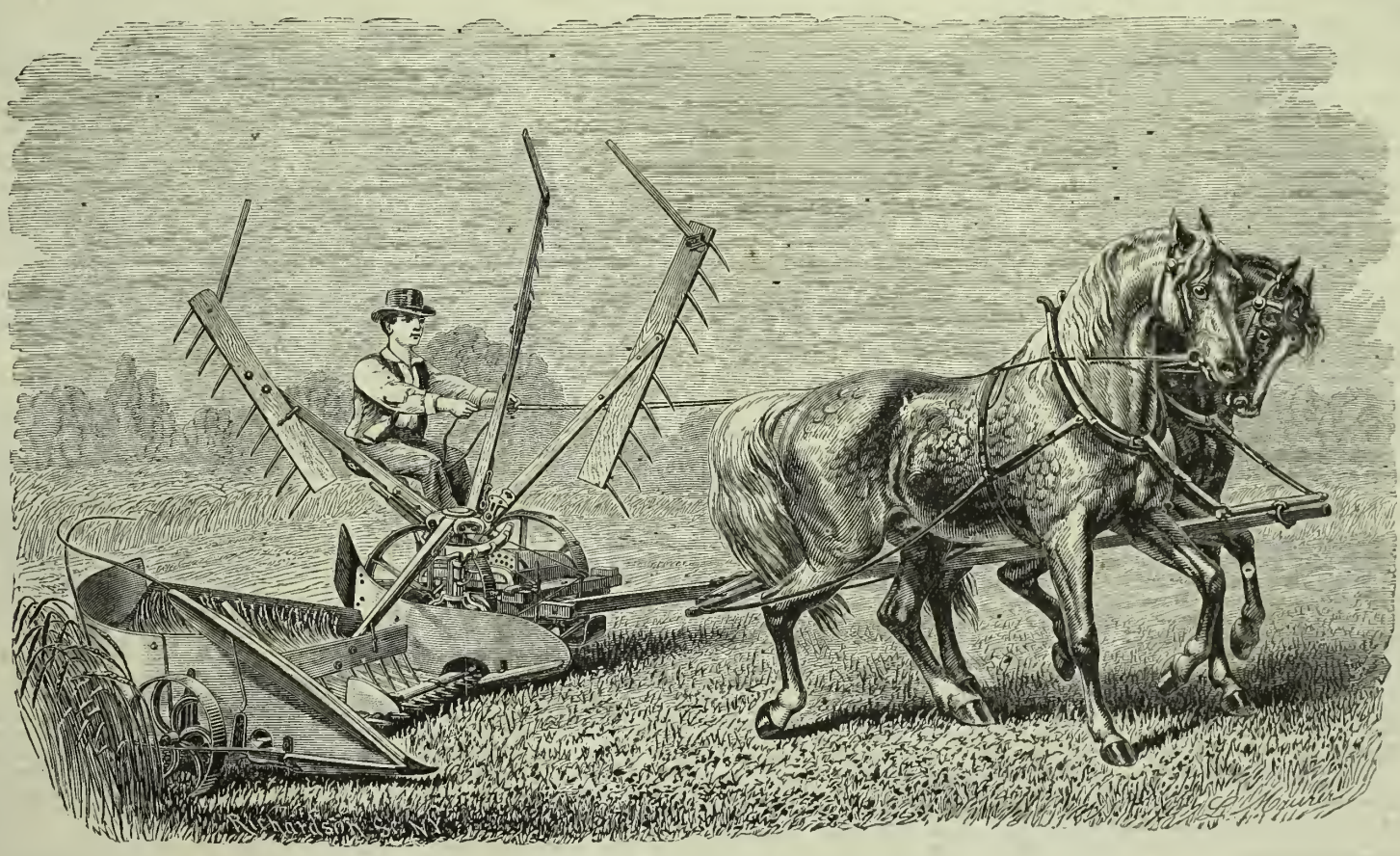
Harvesting Machinery.

We continue our pilgrimages among the harvesting machinery establishments this week with notes of a visit to the old established house of Marcus C. Hawley & Co., Nos. 108 and 110 Front street and 12 and 14 Pine street, S. F. This firm takes leading part in the busy work of supplying the farmers with the trustworthy implements which this year of great harvests will require. In addition to their large stores mentioned above, Hawley & Co. have a copious warehouse on Bluxome street, between Fourth and Fifth streets, which covers a lot 300x120 feet. From this depot nearly all their machinery is shipped. Thus supplied with storerooms and salesrooms they are able to dispatch their large business satisfactorily.

From the valuable machines which Hawley & Co. present to the farmer, we select for illustration this week the buckeye self raking reaper. Every one concedes to the buckeye reapers and mowers a splendid record on this coast. The machines have been sold by Hawley & Co. since 1859, and a most certain test of service is found in the fact that "extras" of certain parts are still furnished for machines which were sent out 12 years ago. We are assured that the machines are being sold at a rate of 800 to 900 per year.

The buckeye machines have kept pace with the progress in harvesting machinery, and those now sold are of the new model, although the essential characteristics which have been found valuable in the earlier machines have been retained. The following is the descriptive statement of the machine which we illustrate: The Dorsey principle of sweep rake, in which the same arms act as both reel and rake, has been almost universally adopted by all manufacturers of self raking reapers, and this principle has been most perfectly and successfully developed in the Buckeye machine. The angle of the cam track is such as to cause the arms to bring the grain on the platform in the best shape, whether it be tall or short; and the adjustable sheet-iron elevator at rear of platform causes the grain to be raked off in the most even gavels on all kinds of ground. The peculiar method of operating the rakes on the Buckeye machine makes them automatic, but entirely under the control of the driver. When the rakes are adjusted to deliver the grain at a uniform distance, the driver can, at any moment, by a slight pressure of his foot, prevent the rake from sweeping the platform, if he does not wish the grain delivered at that point. In a field of uneven grain, the rakes can be operated entirely at the will of the driver, and the size of the gavels made uniform.

In addition to the Buckeye machines, Hawley & Co. have a full line of agricultural implements and hardware. They sell the Rice straw burning engine, of which we made an illustration January 22d, and the Gold Medal separators, built and improved especially for work on this coast. They have the genuine Haines headers, with self adjustable reels. They sell the Schuttler farm and freight wagons. For many years they have been standard wagons. Many of the pioneers of 1849 made their long journey across the plains in Schuttler wagons, and after arrival found them fit for many more years of useful service. A new hay baling press sold by Hawley & Co. possesses many points of superiority never before incorporated in a hay baling press. It is named the "Perpetual hay baling press," and as its name implies, will press perpetually, or as long as power is communicated to it and material thrown into it. The greatest advantages it possesses over other presses is its great power, by which it compresses very heavy weights of material into small bulk, thereby enabling producers to ship their hay more profitably. A bale 18x24x36 inches, as pressed by this machine, will weigh 140 pounds, and 144 bales may be put into an ordinary freight car, thus making ten tons to the car. As shippers of hay contract freights at rates per car load, no matter how much or little they load on, the advantage is apparent, and they will avail themselves of the opportunity to ship heavier loads for the same money. We note these points concerning Hawley & Co.'s establishment. Our readers can learn many times more by a visit.



THE BUCKEYE SELF-RAKING REAPER.

THE VALUE OF TIMBER.—An illustration of the value of timber on waste lands is afforded by a sale of wood which took place on the estate of the Earl of Cawdor, in Nairnshire, the other day. In 1820 two hills, about 300 acres in extent, were planted with fir and other trees, and after successive thinnings, the sale of which realized large sums, the remainder of the wood has just been sold off for the sum of £16,000. The sums realized for the wood on this waste land during the 50 years is stated to be equal per acre to the return of the best arable land in the country.

A NEW PAPER.—We have received the first issue of a newspaper at San Luis Obispo, by T. R. Garnier. It is the San Luis *Gazette*, and has a bright and promising appearance.

The Wisconsin Reward.

Considerable interest has been awakened in mechanical circles by the announcement that the Wisconsin Legislature had offered $10,000 reward for a steam road wagon for agricultural purposes. In answer to many queries, G. M. Marshall, a member of Assembly, has written to the *Scientific American* as follows: "To fill the bill, the machine must travel 200 miles north and south over very poor roads that are often sunk or worn down—in the wheel and horse tracks—six inches to a foot below the common level, but with a ridge in the center, the ridges being impassable for a horse; more so for the wheel of a steamer when we take into account the stumps and stones, avoided by a double team and left in the center ridge. Our wagon track is about four feet six inches outside, and that must be the gauge of a steamer, which machine should not weigh more than two tons and must be so arranged that it will climb steep sand hills, cross poor bridges, run easily over bogs, stones and gruhs, and out of ruts, etc., just as a loaded lumber wagon does; and it must travel at the average rate of five miles per hour, and, in the language of the law, 'be a cheap substitute for horses and other animals on the highway and farm.'"

The Wisconsin farmers evidently desire to get the worth of their money. It is a wonder they did not add that in case of flood the wagon should be able to climb a tree to keep out of the wet. By the terms of the law, competition for the reward is only open to Wisconsin citizens.

RECLAMATION.—The Stockton *Independent* says that large numbers of Chinamen have recently been transported from that city and San Francisco to Staten island, lying above the mouth of the Mokelumne river, for work in the improvement of the island and the building and strengthening of the levees. Messrs. McAfee Bros., agents for the owners, Haggin & Tevis, have been shipping a quantity of lumber to the island for use in the construction of an elaborate system of flood gates for drainage, irrigation, etc.

Magnesia as a Fertilizer.

Last week we printed in our Agricultural Notes a letter from Prof. Hilgard, giving an analysis of the alkali salt which comes to the surface on Sherman island. It was shown that the deposit contained 93 per cent. of sulphate of magnesium, commonly known as epsom salts. This substance was credited with the ruinous effect upon all crops grown where it exists. Doubtless this is the case where it exists in any such quantity as is shown in Prof. Hilgard's analysis, but there are some reasons for believing that the sulphate of magnesium is a valuable fertilizer if properly used. It is especially adapted to the production of the cereals, and if a demonstration of the fact can be made in practice, the deposits on Sherman island may be not altogether a curse.

Dr. Nichols, of Massachusetts, who is both a farmer and a chemist, has for a number of years made direct application of epsom salts to his wheat fields. He bases his practice upon the fact that the ash of the wheat kernel contains 12 per cent. of magnesia and the straw three per cent. He writes of his practice as follows: "My attention was directed to the manifest importance of magnesia in the formation of the seeds of cereal plants, especially wheat and corn, more than ten years ago, when making analyses of the ash of these seeds. The fact that much more magnesia was found in the seeds than in the straw seemed to show that it must play an important and definite part in the formation of the seed; and the amount of magnesia was so large (three times that of the lime and nearly twice that of the potash), as to show unmistakably its importance. It is now nearly ten years since I called attention to the agent magnesia as an ingredient in mixtures designed to be applied to wheat and corn crops. I have always used it upon my wheat fields and often on corn, and the uniform fine crops obtained afford good ground for conjecture that its influence is a necessary one."

This is a matter which is worth experiment here. We recommend our readers to try a light application on a small experimental piece of wheat land and note the result. It can in this way be very easily determined whether our wheat land needs this element. Dr. Nichols' testimony is that he has made a direct application of sulphate of magnesium. Whether this will be of benefit here or whether, as Prof. Hilgard suggests, the compound must be broken up into gypsum and common magnesia, can best be determined by experiment. It appears, at least, that we have a bonanza of the material and trial will demonstrate its value.

WAGNER, the celebrated composer, has finished the "Grand Festival march" for opening the Centennial. It is dedicated to the Women's Centennial Committee.

CORRESPONDENCE.

Notes from Santa Barbara Co.—No. 2.

La Graciosa.

EDITORS PRESS:—From Lompoc to La Graciosa the road winds over mountains and through small valleys occupied as stock ranches. La Graciosa is a small village situsted in the sand hills bordering the Santa Maria valley. The town contains two stores, three or four saloons, a blacksmith shop and a few other buildings, the uses and purposes whereof we did not learn. Our first impressions of La Graciosa were nnfavorable; bnt on investigation we found nestling among the apparently barren sand hills numerous pretty little valleys of exceeding fertility, each coutaining one or more valuable farms, all in cultivation, with crops looking well and everything indicsting prosperity. The sand hills have most probably been formed by deposits of ocean sand, carried here by the *gentle zephyrs* which occasionally prevail in this part of the country. We spent one day at La Graciosa and then returned to Santa Maria; distant eight miles.

Santa Maria

Is a promising settlement, on the Santa Maria river, some 10 miles above Guadaloupe. By some oversight on the part of the land grabbers it was not claimed by a Spanish grant, thongh an effort was made to float one on it after the valley was settled and improved. This attempt was finally defeated after a long and expensive lawsnit. Most of the settlers have obtained patents to their land, thus securing their homes agaiust any future attempt from land sharks. The farms are generally well improved; the soil is good, being a rich, saudy loam, capahle of producing large crops of wheat and barley. Potatoes and corn also do well here. The acreage of grain this year is much greater than usual, the crops are looking well, and the yield will doubtless he large.

A small town called Central City has been huilt here within the past two years. It contains at preseut two stores, two blacksmith shops, one restaurant, one livery stable and one very poorly patronized saloon.

The farmers of Santa Maria have labored under great disadvantages; the drouth and grasshoppers having partially destroyed their crops for two or three snccessive years, added to this a long and expensive lawsnit, has greatly retarded improvements. We found no idlers here, all were hnsy plowing, sowing, etc. The prospect of an abnndant harvest made all cheerful and hopeful of future prosperity, which they well deserve. We fonnd several old acquaintances here, with whom we spent four days very pleasantly.

Taking leave of our kind friends at Central City we continued our journey through a nohle valley, dotted all over with farm honses and covered with magnificent fields of waving grain, 10 miles to

Guadaloupe City,

A thriving little town, situated on the banks of the Santa Maria river near its mouth. The Santa Maria is the dividing line betwixt Santa Barbara and San Luis Obispo counties. Guadaloupe ranks as the second town in the county, being next in size and importance to Santa Barbara. We spent several days here, visiting, in company with our friend James Morse, Esq., the farms on both sides of the river for several miles around. The farms here are generally large, and apparently carefully and thoroughly cultivated. The soil and climate are similar to that of Lompoc. The acreage of grain this year will he much greater than ever before; the yield per acre will probably be largely increased also. The farmers of this valley ought to be contented and happy, having unquestionably one of the finest farming districts in the State, with land titles perfect, and a soil that with proper cultivation will never fail, even in years of extreme drouth, to yield large crops to repay them for their toil.

Bidding adieu to our friends at Guadaloupe, we start on our return trip to Santa Barhara, via the Los Alamos and Santa Inez valleys. Sixteen miles brings us back to La Graciosa, once more having traveled round the circle, or rather the three sides of a triangle since leaving here. After halting an hour to rest, we again pnsh on 12 miles to Bell's station, in the

Los Alamos Valley.

There are several fine ranches in this valley, devoted principally to sheep raising. The whole valley is excellent wheat land, and will probably ere long be cut up into small farms and cultivated in grain. We remained at Bell's station two days, shut in hy a heavy rain, which poured down constantly for 36 hours. Returning on the third morning, three milea brought ua to Sage's ranch. Here we left tho stage road aud crossed the mountain to the

Jonata Ranch,

The largest dairy farm in the county, owned by R. T. Bnell, Esq. It is sitnated on tho Santa Incz river, about four milea helow tho mission. Mr. Buell has owned the ranch two years, and haa made all the improvements on it within that time. The ranch contains 27,000 acres, 2,000 of which are planted in wheat, 1,000 in barley and 200 will be planted in corn. The ranch is stocked with ahout 4,000 cattle and 1,100 sheep. A fine honse and barn, the largest in the county, have heen bnilt, also a fine dairy house 30x85 feet, with double walls and roof to preserve an even temperature. The dairy honse is fitted up with all the modern appliancea for cheese making, no hntter being made. From 1,200 to 1,500 cows will be milked this season. In addition to the other improvements, over 50 miles of good aubstantial board fence have been huilt. Forty men are employed on the ranch. The wheat and barley was looking well, and will no doubt yield largely.

Being somewhat pressed for time, we did not visit the College ranch, which we understand is soon to he divided up and sold in small tracts; but judging from what we heard and saw of the Santa Inez valley, no better wheat country can be found in California. Fording the river with some difficulty and danger from quicksand, we came to the

La Vega Ranch,

The property of Dr. Ramon de la Cuesta. The ranch contains 10,000 acres, 500 of which are cultivated in wheat and barley, the remainder affording pasture for some 8,000 sheep and 200 cattle and hogs. The improvementa aie good: A fine house, surronnded hy a beautiful grove of live oaks, grounds tastefully laid out and ornamented with heautiful shrnhbery, etc.; the whole commanding a magnificent view of the river for several miles.

We were most cordially received by the Doctor, whom we found a true representative of the Spanish gentleman, courtly in manners, kind and affable, ready to impart such information as we desired. We spent several honrs very pleasantly in conversation, gathering many items of interest connected with the early history of California. Declining with regret a most cordial invitation to spend some days with the Doctor and his family, and promising ourself the pleasure of a more extended visit at some fnture day, we resumed onr journey, crossing the mountains by a good road 10 miles to Las Cruces, thence retracing our way to Santa Barbara, where we arrived after an abseuce of four weeks.

Halting a conple of days at Santa Barbara, we resumed our jouruey to Ventura, halting by the way and spending tour days iu

Carpinteria,

Another of Santa Barbara's beautiful valleys The valley is abont 10 miles in length and some two miles in width, fronting on the ocean. The climate of Carpinteria is similar to that of Montecito, while the soil will average much better. The valley is celebrated for its fine potatoes, said to be the hest grown in the State. The Messrs. Smith Bros. have built here a fine wharf, at which steamers can lay at any tide. The farms are gencrally well improved. There are several large orchards, which we believe are proving very profitable, the climate and soil beiug admirably adapted to most of the temperate climate fruits and nuts. Among the fine orchards we may mention that of O. N. Cadwell, devoted principally to apples, of which he has some very fine varieties originated by himself from the seeds. He has about 30 acres in orchard; his trees show evidence of careful handling and culture.

Mr. Heath has also a very large orchard, devoted principally, we believe, to the English walnut, in the cultivation of which we believe he has been very successful. Mr. Heath being absent, we did not visit his orchard, so can only speak of it from hearsay.

E. J. Knapp has a very fine young orchard planted, devoted largely, we believe, to English walnuts.

S. H. Olmstead has a large almond orchard, 30 acres in bearing; also several acres of young orchard apples, peachea, apricots, etc.; alao lemona, oranges and limes in bearing. Everything about the place was in ship ahape, showing conclusively that Mr. Olmstead understands his buaineas and is a thorough orchardist.

Among the large grain farms we may mention that of Andrew Bailard. His farm is cultivated in barley and corn, which is fed to hogs, this being the most profitable way to market it. Several hnndred hogs are thus fattened and shipped to San Francisco annually, paying, we believe, a very handsome profit. Mr. Bailard is a thorough farmer; we found everything ahont the farm in apple-pie order. A fine house, good barns and other outbuildings, good stock, good fences, good cultivation and good crops, a place for everything and everything in its place.

Before taking leave of Carpinteria, we must mention its

Big Grapevine.

A rival of the Montecito or Santa Barbara vine. The vine is 23 years old, the property of Mr. Jacob Willson. It measures 48 inches in circumference two feet from the ground, and 46 inches five feet from the ground, its branches snpported by a trellis 58 feet square, which will soon have to be further exteuded. Of its annual yield of grapes no accounr has heretofore been kept, but Mr. Willson proposes to keep snch an accounr in the future. The vine is located about one-half mile from the town of Carpinteria, and about the center of the valley. A few years heuce the Carpinteria big grapevine will doubtless attract many visitora, and may be the means of bringing tho modest little town of Carpinteria, which now contains two atores and half a dozen houses, into more prominence.

The Rincon creek, at the lower end of Carpinteria valley, is the dividing line between Santa Barbara and Ventura counties. Into this we boldly plunged (our horse) and safely waded across to the Rincon honse, a stage station on the Ventura road. From Rincon to Ventura City, the road follows the ocean front, winding around jutting points into pretty little coves, often following the water's edge on the sands, which are hard and firm.

From Rincon to Ventnra, 15 miles, are only three settlers—all stock raisers. Just "as the shades of night were falling fast" we entered the city of Ventura, securing comfortable quarters at the Santa Clara house. We propose next week to hegin a tour of Ventura county, of which we may give yon some notes anon. McA.

Ventura, March 21st, 1876.

Farming, Etc., in Chile, S. A.

EDITORS PRESS:—Tho rainy season commences about the 1st of April. The grounrl is sown and harrowed as soon as possible in small patches at a time, to receive the henefits of the rain. The hills produce from 12 to 16 centals per acre of barley and as high as 22 centals of whest. Upon the plains it is usual to plow the lands as early as possible, and allow the weeds to sprout, after which the land is followed over by heavy, coarse, large-toothed and very clumsy harrows, or else the plow is made use of. A heavy flat log (instead of rollers) is drawn over the grounrl, to hreak the lumps or clods and to level the land. This completed, a light plow lays ont the furrows, ssy two inches deep and close together. The grain is then sown by haud across the furrows, and light brush tied together, drawn by oxen, is passed over all. The wheat, etc., once grown to a few inches in hight, a plow is run at regular distances across the land, for water to take its course in irrigating. As the water runs down the wide but ahallow furrows, at intervals they are stopped up, allowing the water to overflow the ground. The largest and hest crops come from irrigated farms.

Irrigation.

It is customary to irrigate wherever water can be found, and the whole country is cut up by canals for the purpose, and the country towns are mostly supplied by water through them. The farmers along the lines of canals pay for the water, in ma y cases owning it in common, keeping the ways in order. Along the banks of these water ways the poplar or alamo tree is planted, and when grown to a sufficient thickness they are cut down to within six feet of the ground and allowed to grow up again. The log of the alamo is cut up into boards and joist, meeting with ready sale for flooring and other purposes.

Why Imported Tools Have Failed.

It has been a matter of surprise to visitors, particularly Americans, that more attention has not been given to the modern improvements in agricultural implements and their use; hut when we consider that this country is isolated from older nations, and removed from general intercourse with agricultural communities, and when we nnderstand their social position, this is not to be wondered at. Labor is cheap and agricultural implements enormously dear, and still yon may travel over the large ranchos, and yon will find machinery and implements of agriculture which have been imported at high cost, and which have been nsed a short time, set aside and useless. The direct cause of this is, first, want of knowledge of the requirements of the country, discrimination in choice of article; and again, the cost of repairs in case of accident, inconvenience in repairs owing to distance from the populated districts; the want of dupliçates for such parts of machinery as are liable to break. Even when duplicates can he procured most exorbitant prices are asked for them, as in the case of Wood'a mower; the prices of duplicates of this article are so great as to have nearly destroyed the sale of the mower. The farmer has become disgusted in his trials, and comes to the conclusion the foreigners' implements are humbugs, unfitted for the country, and eventually, disconraged with his losses, he falls hack npon the simple implements of the time of his grandfather. Machinery here must compete with cheap lahor, and not as in your State with high wages. The farm hand receives $12 per month wages and house rent free, agaiust $30 per month and board there.

How Improved Tools Could be Introduced.

To introdnce California agricultural implements in Chile, it is necessary for some firm to open a place of business in Valparaiso, show and explain the uses of their articles offered for sale, and in the more complicated ones send competent hands into the field to explain and instruct the working hands. It wonld be necessary to have constantly on haud duplicates of parts liable to he lost or broken, and above all, cheapen the present prices. A simple cast iron plow is sold here for $10 to $16 each, and many times defective plow beams come with them. Duplicate points cannot he had when wanted, and with the wrought iron plow and point the distance to the shop is too great to permit sending of them for sharpening, and the extra points are very costly. When we compare the disadvantages with the old wooden plow, we find the cost of the latter to be $2.75 each, and the repairs of the season 75 centa more. The California Sursa single plow has been tried and exactly meets the wants of the country. Two were imported for trial, and a nnmber of farmers met together to witness the trials. Not a failnre in any soil took place. Everything was satisfactory, but upon a showing of how easy the points could be changed or replaced it was found that one plow had two points to fit, the other only one, the extra point heing useless. This shows the csrelessness of manufactnrers and their employees in delivery of goods, and the damaging effect upon their interests in foreign countries. The Geo. A. Goodell harness, for teams, manufactured in Alameda connty, was particularly liked. The San Francisco box churn would meet with ready sale, and is far superior to any other in nse. The time has arrived that Chile needs the latest improvements of agricultural implements for economy's sake, and what is wanted is first-rate articles at more moderate prices than heretofore, and no articles can suit the wants of this country equal to those manufactnred in California.

The Cost of Harvesting Grain,

As estimated from a 75-acre lot, was as foll ws Cutting, per acre, hy hand and with the old-fashioned sickle, $1.25; hanling, per acre, by ox carts, $1; threshing, by the ancient Josephus fashion (running horses around a circle over the straw), 70 cents per acre; to which add, as customary, the keg of liquor, $2.50; lahorers, per acre, pitching straw into the circle, 80 cents; cleaning and winnowing grain, by throwing it into the air, letting the chaff hlow off, per acre, 70 cents, including sacking and aewing the same; total, per acre, $4.48½. Cost of sacks 23 cents each.

Land rents npon the plains at $20 per acre; seed wheat per acre, 100 pounds; plowing, hy the time-honored Roman plow, harrowing, sowing, etc., $3 50 per acre.

The wheat atraw in threshing becomes broken into fine chaff. This meets with a ready sale at an average of $7 per ton, and is used tor feeding cattle and horses, and to the surprise generally of visitors over the farms, it is found the animals thrive wonderfnlly on this feed. A threshing machine or separator adapted to the use of this place requires a roller or cutter, and perhaps both, to prepare the straw for cattle at the time of threshing, as whole straw is perfectly useless. Such a machine should be run by horse power, as the steam engine is not suitable to the wants of the country owing to the many expenses attached to it, whereas horses are of but little value and feed very reasonahle.

Irrigation has its drawbacks as well as its benefits. By means of water passing through the canals, seeds of all classes are distributed through all parts of the country, and many plants so introduced are hard to get rid of. Amongst the obnoxious weeds the worst is the morning glory and witch grass, the only mode of destroying which is in planting hemp seed and growing successive crops, which greatly exhausts the soil.

The attention to

Live Stock

Is greatly on the increase, and blooded horses and cattle have been imported from England and California; both horses and cattle from the latter place have been received with marked favor. A Woodburn colt took a first prize at the exhibition in Santiago, which, I have no doubt, will be gratifying news to John Hall of Alameda county. Trotting horses are greatly coming into use, as the lighter vehicles are made use of for a single person, and in a few years no doubt good carriage stock, making good time, will come into use and command fine prices.

Chile Produces

White wheat, candeal, barley, corn, potatoes, tobacco, beans, etc. Tho amount of wheat produced it is impossible to ascertain, as there are no reliable sources from which to obtain statistics. It is represented that the surplus of wheat in grain and flour, the exports to Peru, Bolivia, Europe, etc., amounts to the neighborhood of 1,200,000 centals per annum.

"HAYWOOD."

Under-drainage.

EDITORS PRESS:—I have been much interested by a short article, published in the Sonoma *Democrat* of 8th inst., nnder the above heading. It seems to me to be a aubject well worth the careful attention and study of farmers in Sonoma, Napa, Solano and other connties where there are large tracts of adobe and heavy loam bottom lands, with clay subsoils, which, owing to the tenacity with which they retain surface moisture and prevent rain water from percolating through the top crust, are often obliged to he left nnseeded until very late in the spring; or, if sown in the early part of the season, become so cold, clammy and moist, that they return but a sickly and weedy growth when the crop is not drowned ont entirely.

Mr. John Adams, of Santa Rosa district, Sonoma county, whose experiments gave rise to the article above alluded to, is evidently an observing and progressive farmer, and one whose services it would be well for us to enlist as a correspondent through yonr invaluablo columns.

With this end in view we would propound to him and respectfully request as early replies as possible to the following questions:

1st. What is the nature of the soil and sub-

soil in which his experiments have been made?

2d. How many acres were experimented on?

3d. What size of tile was used in the lateral drains, and what was the distance between said drains?

4th. What is the cost of the tiles, and that of laying them?

5th. What is the cost of tile drainage per acre?

6th. What has been the average yield of grain on the drained and on the undrained lands since experiments were commenced?

7th. Were the drained and undrained lands so similar in natnre, location and time and manner of cultivation that a fair comparison might be drawn between them?

8th. What object, if any, aside from economy, was there in making the main drain an open ditch?

If Mr. Adams will kindly reply to the above queries, he will undoubtedly place a great many farmers, who have not the means to experiment, under great obligations, and will do much to advance the agricultural interests in the counties named.

The fact, as stated in the article alluded to, that "water flowed from most of the drains dnring the dryest part of the year," seems almost incredible, and leads me to think that Mr. A. is making a mistake in constructing an open ditch for his main drain. I do not think that California soils can, as a rule, spare much, if any, of their surface moisture after the heavy rains of December and January are over, and I should, therefore, consider it preferable to so construct the drains that they might be closed at will, thereby preventing them from carrying off more water than can be spared, and with it no insignificant portion of the fertilizing matter which lies in the subsoil.

Another reason, in my humble opinion, for keeping the drainage under restraint wonld be the fact that Mr. A. does not probably intend to raise grain every year, bnt will occasionally desire to give his land a rest by letting it run to pasture. For this purpose he will require pretty much all the water he can get; and I should think he can do nothing better than close the outlet of his main drain, and use it and its lateral connections as a net work of underground reservoirs, to hold and retain the surplus moisture, which may be drawn upon by the rootlets and plants during the dry spells, as required. What say you, Mr. Adams?

RANCHER.

ARBORICULTURE.

Correct Practice with Eucalyptus.

EDITORS PRESS:—Mention was made in former articles of the superiority of trees grown in open ground for forest planting, and a caution was given that box grown plants should never be used, except for heavy clay or adobe soils. I therefore shall at this time point out the correct procedure for their successful growth, giving our actual working practice.

It is presnmed the propagation of the plants as detailed in my last article has been successfully managed, the large plants assorted when working over, the smaller ones shaded and carefully watered, and everything ready to transfer to beds of deeply trenched soil our embryo eucalyptus giants. And here let me at the start impress on all the necessity of having caution, not that there is anything difficult ahead, but these young trees are governed by the laws of nature the same as everything else around us, and to violate these laws entails disaster. After the seedlings have been worked out and safely over the wilt, they must be exposed to the full dashing sunshine and winds. At first the leaves of some will curl up, tnrn brown and have a decided rusty appearance. The light green soft color of stems and top will disappear, and the result will be hardiness, and this alone is the secret of complete success. It matters not if the plants were started from the seed in spring or fall, they must, before their final working out, be hardened off so thoroughly that their growth is effectually checked. Do not neglect to water them often when thus exposed to the drying influence of sun and wind, or you may yet lose them all from your negligence.

The working out into beds is simply the work of children. Remove the side of the box and with a long bladed knife cut down between the trees each way. Remove the balls of earth and trees, carefully placing them in a deep drill six or eight inches apart. Draw the moist soil well up around the tree, packing well at the bottom, but leaving very loose on the top. Leave Nature to complete her work. But, Mr. Peter Funk says, "bosh, why remove them from the boxes where they are established? Why not let them grow till planting time? Why all this extra labor?" The growing of these trees in boxes is simply unnatural. By the continued surface watering their deep feeding roots are unnaturally developed. Often, in continued hot weather, the sides and bottom of the boxes become dry, and when planting time comes he finds the roots thoroughly matted all around. The result is that when planted they will not stand a heavy winter if water is allowed to stand around them. The complaint has been universal this winter of great loss of trees. "What's the matter?" comes from every direction. The matter is, there are persons engaged in growing these gum trees who have not sufficient intelligence or honesty to carry the offal of a slaughter house to a caged grizzly bear. All they care for is to pocket the money of confiding victims regardless of results. Florists and nnrserymen defer their propagation till late in the season. Boxes of the richest compost known to the trade are used to excite rank growth. Glass heat is used to grow them thickly and straight, and then when some honest farmer sends for his trees, they are sent off as just the very best article to plant. Deformed tap roots are never thought of. Weak and sickly trees are the result, and the want of success with one planter will deter a whole community. Therefore, I say, grow your own trees, you who require but a few hundred each year. What if they cost a little more, better, by far, learn how to grow them from the columns of the RURAL than subject yourselves to the tricks of some contemptible deceptions of tree dealers.

W. A. T. STRATTON.

Petaluma, Cal.

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Roup.

M. EYRE, JR.:—In this county we are losing a large proportion of our newly hatched chicks. Their heads swell, they gradually become blind, and die. In some cases little lumps appear near the bill, but more generally there are only the swelled head and blindness. It seems to attack chicks almost as soon as hatched, and from that up to those several weeks old. What is the disease—what the remedy? By answering the above you will greatly favor many of the PRESS readers.

J. TORREY, JR.

Westminster, Los Angeles Co.

The disease described is roup. It comes from cold. It sometimes assumes the form of an epidemic, like epizooty in horses. The chicks should be shut in on the nest until 24 hours after they are hatched; then placed with the hen in a warm, dry location, free from wind and drafts, and entirely separate from any others afflicted, as the disoase is contagious. Proper precautions against lice, which weakens the chicks and renders them susceptible to disease, should be taken. See article on "Care of Young Chickens" in PRESS of Feb. 26th, 1876. Those attacked should be removed at the first sign of the disease, as they communicate it to others, especially to those drinking from the same vessel.

Leghorns as Layers.

EDITORS PRESS:—I find by the correspondence in your paper that there is considerable inquiry in regard to the Leghorn fowls as layers. With your permission I would like to continue the record of my 34 Leghorns for March. During that month they laid 754 eggs, which added to the account published March 25th, makes 2,596 eggs from the 1st of November to April 1st, or over 500 eggs per month. If anybody has any better breed of fowls for laying I would be glad to hear from them.

GEO. W. T. CARTER.

Point of Timber, April 2d, 1876.

THE DAIRY.

Benicia Cow.

EDITORS PRESS:—I have a little matter of fact which I wish to communicate as regards what our cow has done. She came in so that we saved the first milk from her on December 6th. From this until March 7th we made 158 pounds of butter and sold 27 gallons of milk. We raised the calf on her, which we sold to the butcher for $7. The butter was sold at five bits a pound at first, and came down as butter became more plenty to 40 cents, which is as low as we sold in that time. You will see that these items will figure up to full $90. Yonr readers may think we have fed very high, and have been very saving of the milk and cream. As to the saving, I will say that we are a family of four regularly, and have a good deal of company. We never nse anything but cream in our tea or coffee, and the children have all the new milk to drink they wisb, with no thought of saving. The cow's keeping has been what she could get in the pasture through the day; at night she was fed a little hay. Besides, she has had about one cart load of beets and squashes, half a load of each. After the beets and squashes were gone, until the feed became good, she had three sacks of bran. Now, I do not pretend that I have the best cow there is, but I would like to hear who has had one do better on the same feed. The cow having done well years past, we decided to keep account of what she has done this season, so you may hear from me again at the expiration of six and nine months. I keep but one cow. What is it that pays better than a good cow? I see you have been offering a map of California and Nevada to subscribers who pay one year in advance. I have been a subscriber since the first nnmber you printed, and am I not entitled to one?

S. A. TABBOX.

Benicia, Cal., March 27th.

[Our intention is to send the map to each subscriber as fast as they pay during the year 1876, so that all paying during the year will get their map in turn.—EDS. PRESS.]

Gilroy Dairymen.

EDITORS PRESS:—I have delayed to answer yonr letter for some time, as I wished to get some items from my brother dairymen, but they have kept their accounts so loose that I cannot get at a correct statement of the number of pounds of cheese they have made. I have examined my own books, and I find that my cows averaged me 400 pounds of cheese to the cow, which averaged me, after taking out freight and commission, about 15 cents; I think I can show a better thing this year. I hope you will succeed in getting up the association, and give us all due notice of the fact. I send a list of the principal dairies, giving their owners and number of cows. There are other small ones of from 10 to 20 that I have not taken a list of; nearly all the number are taken from the owners: E. A. Davidson, 225; Henry Reeves, 100; Donnelly & Dunue, 450; O. & H. Reeves, 500; E. A. Sawyer, 200; J. Sargent, 150; T. Rea & Son, 150; E. A. Watson, 25; Mike Watson, 35; J. H. Ellis, 80; D. Zook, 42; R. Eschenburg, 50; H. Jones, 80; Mr. Dexter, 35; S. M. Maze, 30; J. Doan, 40; P. Dounelly, 70; A. Willton, 65; Mr. Talbert, 15; Capt. Perry, 22; Wheeler Dexter, 35; Thomas J. Vaun, 45; S Rea, 100. Total, 2,544.

Mr. Arthur has charge of Donnelly & Duune's dairy and Mr. White of J. H. Ellis'.

A. WILLSON.

San Felipe, April 3d, 1876.

Dairy Association.

EDITORS PRESS:—I have just read your communication discussing the advantages to be gained by the formation of a dairymen's association. I am heartily in favor of it and think most of my neighbors would be. The association would bring together the dairymen from all parts of the State, and the interchange of experience and practice could not fail to be beneficial to all interested. The different subjects to be discussed with profit are many and would result in stimulating the production of a better quality of butter and of better prices for strictly choice butter. We do not take as good care of our cows as we should. We need more comfortable barns for them and must look more to the feeding, or good breeding avails nothing. We cannot afford to let our cows snffer from the cold, driving rains, even of a California winter.

T. B. CRANDELL.

Point Reyes, March 18th, 1876.

[Mr. Crandell is right. We are constantly receiving assurance that the proposed association will be a power for good.—EDS. PRESS.]

THE VINEYARD.

Wine and the Phylloxera.

We are pleased to learn from Mr. Pellet that the demand for wine is increasing, and that considerable quantities are being shipped. He thinks that his cellar may be emptied by fall. The price remains about the same as formerly. The wine that is sent East, however, pays a very good profit, commanding a higher price in the Eastern than in the San Francisco market.

Mr. Pellet states that a very careful examination of vines has been made from Yountville to the upper end of the valley, in search of that dreaded pest, phylloxera. The investigations have been carried on with the aid of one of the best microscopes in the State—the property of Dr. Nichel—but no phylloxera has been found. The pest has not made its appearance in this valley, so far as is known, and there seems to be no immediate cause for alarm. The nuisance is local in its character, and the insect is supposed to be conveyed from one place to another only by cuttings and roots. The greatest care, therefore, is demanded in procuring cuttings and transplanting. If the roots or cuttings be soaked in water for a couple of weeks, they will then be safe enough, for water is a sure cure for phylloxera, if they are given enough of it.—*Napa Register.*

Packing Raisins.

A great deal has been said about the deceitful practices of farmers in putting the finest and largest fruit on the top of the box, in order to catch the eye of the purchaser. We very much doubt whether this habit will ever be changed. If three-fourths of the producers should resolve to put the largest apples, or pears, or peaches at the bottom of the box, and the other fourth should persist in putting the large fruit at the top though the average throughout migbt be greatly inferior to the other, does any one say that the sensible, discriminating public would not purchase the deceptive fruit in preference to the unattractive boxes? And as this can never be remedied, it stands all producers in hand, in order to compete in the market, to pack their fruit in the most attractive manner. Especially is it necessary to put up our California raisin crop in an attractive shape, in order to give them as fine an appearance as those which are sent to our markets from abroad, and with which the California crop will have to compete. The boxes should be of uniform size, and well planed after being nailed together, which is done with a planer for the purpose. The boxes should be of 25 and 12½ pounds capacity. It has been the practice to pattern after the style of boxes coming to our markets from Europe, and which are familiar in our markets. We believe this is not wise, for California raisins will ere long outsell foreign raisins, and we should have an indentity which cannot be mistaken. Instead of trying to sell the California productions under the reputation of foreign raisins we should make them to have a distinctive appearance of their own. Take the bottom of the box off, put in white paper on the bottom and on the sides, and then select large bunches and put them in compactly, one bunch on top of another, and when the box is full nail on the bottom and mark on the opposite side. When the cover is taken off, the paper which was put in the bottom will be lifted up, and the large, flat bunches which were put into the bottom will be displayed in an even, compact mass of luscious-looking raisins.—*Chronicle.*

Important Land Decision.

The following decision relative to indemnity school land selections is one of the most important ever made at Washington. It makes the validity of thousands of acres of lieu land locations questionable, and should be studied carefully by every farmer whose title from the State is of that character:

DEPARTMENT OF THE INTERIOR,
WASHINGTON, March 10th, 1876.

Sir: I have considered the application of Geo. C. B. Selby, *et al.*, pre-emptors, to be permitted to prove up and pay for certain lands in township 2 S., R. 14 W.; also, the application of James M. Evoy, *et al.*, to be permitted to file for certain lands in township 2 S., R. 13 W., S. B. Meridian, Los Angeles district, California, all of said lands being claimed adversely by the State of California under selections made by her.

The case is before me on appeal, by the said pre-emptors, from your adverse decision of December 14th, 1874.

It is alleged that the State selections were made in violation of law, and are, therefore, invalid, and no bar to the rights of pre-emptors. If the allegations are true, the rights of the pre-emptors must be admitted, for it is the established rule of this Department that an invalid State selection does not reserve the land it covers from appropriation and pre-emption under the homestead laws. See decision of March 1st, 1875, in case of Francisco Aurreceechea *vs.* State of California, *et al.* (Copp's Land Laws, p. 325); of April 8th, 1872, in case of State of California *vs.* Haile and Watson (ib. p. 324); and of February 5th, 1875, in case of McLean *vs.* Stanley.

It appears that the selections by the State were made under the sixth section of the act of July 23d, 1866 (14 Stat. 218), of lands in lieu of certain school sections, 16 and 36, which, it is alleged, were lost to the State by reason of being included in Spanish or Mexican grants. They antedate the claims of the pre-emptors, and, for this reason alone, without considering the question of the validity of the said State selections, you reject the pre-emption claims.

You have not forwarded any data with the case to enable me to judge of the validity of the said selections, but on an examination of the records of the proper division of your office, I find that in nearly every instance the school sections alleged to be lost to the State, and in lieu of which these selections are made, are included in the limits of a grant not yet adjusted and without final survey. The question of the loss of such lands to the State had not been settled, for the law just quoted provides that such questions shall be determined "in case of Spanish or Mexican grants when the final survey of such grants shall have been made." The State had not lost the land, and was not entitled to select indemnity therefor. Her pretended selections were, therefore, without authority of law and void. She cannot be permitted to substitute other lands actually lost and thereby preserve her selections, so as to defeat the claim of said pre-emptor, for such substitution would be virtually a new selection, taking effect from its date. See case of State of California *vs.* Haile and Watson (Copp's Land Laws, p. 324).

You will, therefore, cause a careful examination of the State selections to be made, with a view of determining their individuality, and when you find them invalid, by the rule just indicated, reject the same; and examine the pre-emption claims upon their merits.

In cases where persons claim, under the homestead or pre-emption law, and apply to enter or file upon lands covered by a State selection alleged to be invalid, they should be permitted to contest the same after due notice to the State; and if, after investigation, it appears that the State selection is invalid, as alleged, it should be canceled, and their entries or filings received as of the date they were offered.

I reverse your decision, and return the papers in the case, transmitted with your letter of August 16th, 1875.

Very respectfully, Z. CHANDLER, Secretary.

To the Commissioner of the General Land Office.

The New Homestead and Pre-emption Law of Congress.

The following is the text of the Senate bill relative to homestead and pre emption entries, which passed the House on Thursday and now awaits the President's signature to become law:

Be it enacted, etc, that all pre-emption and homestead entries made in compliance with any law of the United States on public land, made in good faith by an actual settler, when in tracts of not more than 160 acres each, within the limits of any land grant, prior to the time when notice of withdrawal of lands embraced in such grant was received at the Local Land Office in the district in which such lands are situated, or parts, they shall be confirmed and patents issued for them after their restoration to the market by order of the General Land Office, and where pre-emption and homestead laws have been complied with, and proper proofs thereof have been made by parties holding such tracts, the same shall be issued to parties entitled thereto.

SEC. 2. That when at the time of such withdrawal as aforesaid, valid pre-emption or homestead claims existed upon any lands within the limits of any such grants, which afterward were abandoned, and under the decisions and rulings of the Land Department were re-entered by pre-emption or homestead claimants who have complied with the laws governing pre-emption or homestead entries, and shall make proper proofs required under such laws, such entries shall be deemed valid and patents shall be issued to the person entitled thereto.

SEC. 3 That all such pre-emption and homestead entries which have been made by permission of the Land Department, or in pursuance of rules and instructions hereof, within the limits of any land grant at a time subsequent to the expiration of such grant, shall be deemed valid, and a compliance with the laws and making of proofs required shall entitle the holder of the claim to a patent thereof.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

A Journey by the Worthy Master of the State Grange.

Editors Press:—By invitation to attend a convention of North San Joaquin Grangers at Lodi, Bro. Cressey and I left Oakland on Thursday last (13th), on the morning train for Stockton. The country and grain fields on the route never looked finer. Livermore and West San Joaquin valleys are to have a benefit this year, and the people are happy in the anticipation of the abundant harvest which Ceres has in store for them. In Stockton we met Bro. Wolf, who is a live Grauger, and the indications are that he will do a big business in the sale of agricultural implements this year.

Stockton, you will remember, is Bro. Cressey's old stamping ground, where he drove three yoke of cattle, hauling brick, having, at the same time, one broken arm in a sling. Near the boat landing he pointed out the old bnilding on the floor of which he used to roll up for the night in half of a single blanket, to feel the inspiring influence of fleas, and dream of home and happiness.

The "water front" of Stockton appears dilapidated and deserted; many buildings are without occupants—save wharf rats. This is the work of the iron horse, whose snort and fiendish laugh is heard every honr in the day as he flies through the town, playing harsh music with his ponderous wheels, which have taken all the wind out of the Calliope. Just as shades of sadness began to spread over Bro. C.'s face in viewing the changes relentless time had wrought, Bro. Overhiser appesred in the distance with a "double team," which was soon alongside, and after kindly greetings Bro. C. and I stepped into the rockaway, and were rapidly driven to Bro. O.'s model farm, situated five or six miles north of Stockton. We slept over night with Bro. O., had a look at his Short Horn cattle and Berkshire hogs, all of which are very fine. Bro. O. is a genius, too, did you know that? He has conjured up many new models of agricultural implements, and a "wonderful windmill," which appears to be the Joseph of his household gods, which is simply a lever with a pump attached to one end and a horse to the other.

Upon an average this season has been too wet for the country abont Stockton. It is true there ia much good looking grain, bnt the greater portion of it has been injured in consequence of too mnch water. Towards Lodi the soil is sandy and higher, and consequently better crops. Arriving at Lodi we were reminded of the opening of an old-fashioned camp meeting: Horses and wagons on the right; horses and wagons on the left; horses and wagons in front; and men, women and children on every side of you.

The Meeting.

The hall being too small to accommodate all present, the village church was secured and properly decorated by the good sisters. Bro. Kearny was selected tor presiding officer. After opening the Grange in due form, the only representative of the State Grange present was called upon, who gave a synopsis of the work which had been done in that department since the meeting of the State Grange last October, giving abundant evidences of renewed life in the work of the Order. Bro. Inman, representing the Business Association, was present and offered much good counsel; he advised the farmers to sell their grain if they could get a fair price for it, bnt if they could not, he advised them to sit down on and eat it, letting the capitalist do the same with his money, and see who would live the longest. Bro. Brooks, manager of the association, was also present and had words of encouragement to offer. Bro. Blanchar, President of the Fire Insurance Company, was called upon and proved conclusively from statistics that if you wish to live a long time, or to keep your house from burning, it is necessary to get insured. Bro. Gardner, of the Immigrant Aid Bureau, was also present and gave a short account of its workings and of its utility.

Dinner being announced, a recess was taken for one hour, when we adjourned to the hotel, where our gallant brothers and especially our noble sisters of Lodi had prepared a splendid collation all at their own expense. Something near 200 of us sat down at the first table—how many there were at the second and third tables, we didn't wait to see. The Marshal of the Day, for some unexplained reason, seated the San Francisco delegation all up in one corner by themselves; whether in so doing was designed as a mark of distinction, or whether our brothers and sisters were afraid of the contaminating influences of that "wicked city," as yet remains a secret. I remarked to Bro. Cressey, who sat on my right, that it was a good looking crowd, especially the sisters, who looked remarkably well and happy. Bro. C. shook his head. What does that mean? Said he, "This is a hard climate on women. it is awful hot up here in summer and these sisters all do their own housework, poor things! Don't you see how pale and sallow they are? They don't look like the women up about Modesto." (I will say just here, in parenthesis, that Bro. C. is very much disposed to brag about the country and people of Modesto.)

After dinner we all repaired to the church, where we renewed our work. Bro. Cressey grew eloquent in his exemplification of the workings of the Grangers' bank. He said that he had been employed to do the dirty work of the stockholders, and that he was bound to make the institution a success; that he was hoarding the resources of the bank in order to aid the farmers in moving their crops. Many questions were asked and satisfactory answers returned, and just as we were entering upon the most interesting part of our work, Bro. Overhiser sung out "all aboard for Stockton." He said it would be necessary for us to start immediately, in order to be in time for the down train, which leaves Stockton about 7 P. M.

With regret we left our newly formed friends, but we lingered so long with them that Bro. O. declared that his team could not make the time, so we were invited to take seats in the carriage with Bro. Phelps, Master of the Stockton Grange, who held the ribbons over a spanking team, furnished at the expense of Lodi Grange. Many adieus to all, and we sped away like the wind towards Stockton, where we arrived in time for the cars.

Having agreed to go with him to Modesto to attend the Grange picnic the following day, Bros. Cressey, Gardner, Logan and your humble servant took the train from Lathrop for Modesto, where we arrived about 9 o'clock the same night. Bro. C. having impressed us with the importance of Modesto, we were prepared to see sights. From the depot Bro. C. led the way to his old homestead, where we were hospitably entertained by Mrs. Cressey, wife of our guide's brother.

It fell to the lot of Bro. C. and me to sleep together. He told me of his many trials and tribulations; how he came to Modesto when there was nothing in sight of the place bnt wild flowers and Spanish cattle; how he first settled in Paradise, and subsequently left it (unlike Adam and Eve) voluntarily for the highlands of Modesto, but that he had not made more than half the distance when the house got stuck in the bogs of Paradise, where he left it. And there it remains to this day.

After breakfast next morning, Bro. C., wishing to show us some of the glories of Modesto, engaged the city buss and conveyed us out into the fields of waving grain, which we found good, bad and indifferent.

Brother C. was evidently disappointed in the appearance of the crops, for much of the grain, having been merely scratched in, was, in consequence, choked with weeds; other parts being very sandy, the grain had failed and flowers took its place. Brother C. grew restless, looking from side to side to find something extra, but not being able to discover it in the shape of waving grain, he changed his tactics, when he exclaimed: "Look there, Webster, just look there, at them flowers! You fellows down at Oakland spend your thousands in the cultivation of little patches of flowers, but there is flowers by the hundred acres more beautiful than anything you have, and didn't cost a cent."

Well, we had to give it up, for of all the beautiful sights which dawn upon human vision, there was one of the first water. Bro. Wright's "poppy of the San Joaqnin valley," was there in all her glory; bnt she appeared pale and haggard when compared with a dozen other colors and varieties which grew in profusion everywhere.

The Modesto Picnic.

When we returned to Modesto about 11 A. M., the Grangers were assembled in their large warehouse, which is just now relieved of its wealth of golden grain. Bro. Bangs, Master of Stanislaus Grange, No. 4, called the meeting to order; and after a song by the sisters, the Worthy Chaplain performed his pious duty, when Bro. Bangs, orator of the day, read an excellent address, giving a history of the rise and progress of the Order, and many other facts connected with the movement, which were fully appreciated. He stating also that that was the fourth anniversary of Stanislaus Grange. Your humble servant was next called upon to speak his piece, which he did without prompting. Bro. Cressey was next called upon, when he waded into the farmers of Modesto in grand style. He told them of their fine fields of flowers where they had sown nothing but wheat. He told them to quit trying to put in all creation, and plow their grounds better. He told them that summer fallow was the *panacea* for poor crops. He told them that Cressey Bros., who had long wandered in darkness, had struck the light of summer fallow, which this fall would shell out in the shape of twenty dollar pieces. He told them about the Grangers' bank, and many other things too numerous to mention. Bro. Gardner was next called out and made a neat little speech.

Bro. Logan's name was on the list of orators, but he declined to speak, claiming that he was made for action and not for words; we thought that he was joking when he said it, but we were fully satisfied as to the correctness of the assertion when we saw him devouring the cakes and chickens. We had an invitation to take dinner with Brother and Sister Bangs. You will remember that Sister Bangs is Flora of our State Grange, and a very worthy one at that, for she has sufficient snap in her eyes to do anything and do it well. After dinner, Bro. Spenser, editor and proprietor of the Modesto *News*, invited us out for a ride behind a span of fine horses. Bros. Gardner, Logan and myself accepted the invitation, and we whirled away down towards Salida, eight or ten miles distant, through a sea of waving grain. Like that on the morning route, the grain was good, bad and indifferent. The requirement of the county is more thorough tillage, and summer fallow alternate years. Every fine piece of grain which we passed Bro. Logan claimed that "that looks like our Colusa county grain." If we chanced to pass a band of fine sheep, Bro. Logan would exclaim, "them are almost as fine as my New Zealand ewes." Returning to town about sundown well pleased with our ride, we thanked Bro. Spenser for his hospitality and his genial jokes. Seriously, I think that I have never met so many generous people in so short a time. There was nothing strained in their hospitality; "it fell like the gentle dews from heaven, twice blessing, blessing him that giveth and him that receiveth."

Bro. Gardner wishing us to go round by the way of Grayson with him to see the verification of some of his tall bragging, Frank Ross, a gallant "knight of the ribbons," was employed to take us to Bantas, via Grayson, a distance of 30 miles through the grain fields, which he did in gallant style behind a splendid team. We had a sprightly young lady with us, Miss Lulu, of Modesto, under charge of Bro. Cressey.

Our course was through "Paradise Lost," or rather moved; thence over the dead city of Tuolumne, (the railroad killed it,) thence to Grayson, where we were informed by the landlord of the principal hotel that four steamers passed that place per day. Bro. Gardner nodded his assent, bnt Bro. Cressey and I, from the appearance of the place, were forced to the conclusion that it must be an ocular illusion, in which the same steamer was seen four times during the same day in the different bends of the river.

We drove around by Bro. Gardner's ranch, some two or three miles from Grayson. The grain is not so good as I had anticipated. Much of it was sown late. A good portion of it was volunteer; consequently weedy and indifferent. Upon the average it is a little better than that about Modesto. The same indifferent system of farming prevails. Summer fallow looks well and is free from weeds.

At Ingram gulch we had the evidence of the success which must attend irrigation. The water from this gulch has overflown some two or three hundred acres during the winter and spring, and the result is the finest grain we saw during our whole journey. About 100 acres of this grain is on Bro. Gardner's ranch, which he says was neither plowed nor sown nor harrowed, but volunteer from last year's crop. But I have spun this article beyond all calculation, and it will be impossible to get home to-night at this rate, so I will leave you to imagine how we did get home from Bantas.

J. V. Webster.

April 18th, 1876.

Nevada County Pomona Grange.

Grangers "On a Train."

Upon last week's Thursday morning overland train from Oakland were found Bros. J. V. Webster and C. J. Cressey on their way to attend a meeting for "the good of the Order," at Lodi. Bro. and Sister McConnell, of Elk Grove, Bro. Wood of Danville and Bro. Shinn of Centerville were homeward bound, and Sister Dewey and "the undersigned" were on a "mission" to Grass Valley, where they were in hopes of assisting in the birth of a new Grange of our noble Order. "Rough staging" from Colfax to Grass Valley is all we have to say of the up trip.

Pomona Organization.

Friday P. M. we met 15 of the 20 P. M's, M's and delegates who were to "charter" the Pomona Grange. Exercises commenced at once, and all soon felt themselves at home, with a lively interest that this new family branch should start aright with due ceremony.

Each member was examined as to elegibility and also proficiency in the fourth degree work, and right at this point our "missionary" services ended. If there are any brighter Patrons in California than these mountain Grangers, remember we recommend them to wait for Bro. Smedley as their next examiner.

Saturday A. M., when all expected members were present, the following list of officers were elected: Chas. Barber (Grass Valley), M.; I. E. Ricky (Kelley Grange), O.; H. L. Hatch (Indian Springs), L.; A. Henderson (G. V.), S.; L. Horton (I. S.), A. S.; Wm. Denton (Magnolia), C.; Benj. Sanford (Kelley), T.; Wm. Stevens (G. V.), Secretary; W. Emery (I. S.), G. K.; Mrs. Mary Denton, Ceres; Mrs. Gertrude L. Barker, Pomona; Miss Janet Henderson, Flora; Miss Flora Denton, L. A. S. Other charter members: Bros. J. N. Ritchie, Wm. Baldwin, Philip Womack, and Sisters E. W. Hatch, Martha L. Davis, M. R. Ricky and E. Sanford.

The fifth degree was duly received by the delegates present with evident satisfaction. Commencing work at once, Bros. Hatch, Sanford and Henderson were appointed a committee on constitution and by-laws. It was voted that the first regular meeting be held in Grass Valley at 1 P. M., April 29th.

Early in the evening, in the presence of the members of the Grass Valley Grange and delegations from other Granges, we installed the full list of officers of the Pomona Grange.

Grass Valley Grange Harvest Feast.

The fourth degree was handsomely conferred on three Matrons and six Husbandmen by Bro. Barker and his assisting officers, in the presence of the members of the Pomona Grange. All the foothill Granges here represented (somewhat isolated from the great valleys of the State) have almost a perfect unity of interest, which renders their co-operation in a Pomona Grange both appropriate and hopeful. The new Grange has able and trustworthy officers, and it stands well in hand for its fourth degree representatives to respond promptly for its assistance, as there seems to be much that can thereby be accomplished for the benefit of the general farming interests of the particular section represented. Further local organizations should be made in adjoining districts, where farmers can also join with the prospect of making the Order still stronger and more beneficial to all who co-operate in this mountain farming and fruit-growing region.

The Patrons present (some 100) practically did more ample justice to the richly loaded and handsomely decorated tables, than our pen can reflect upon the fair hands that prepared them. We have not seen this mountain "feast" excelled elsewhere. Among the numerous never to be forgotten "sweet things" *abounding* on the occasion was the sweet cider—the pure juice of mountain-raised and winter-mellowed golden pippins—used as a substitute for the customary "warm drinks" of our harvest feasts. It was "very taking."

The floral decorations for the afternoon and evening were choice, and handsomely arranged by skillful fingers.

Evening Grange Meetings.

This is the first evening sub-Grange meeting we have attended. They are held weekly. Some of its members living five miles distant have scarcely missed a meeting during the stormy winter. Let our valley friends look well to their laurels, or, in at least some of the best features of our Order, Nevada county will claim the banner. We have been agreeably surprised at the temper, strength and capabilities of these mountain Granges, four of which were well represented in this series of meetings. The spirit of liberty nestles in the Alpine districts of the world; the Grange thrives in our mountain air.

D.

From the Granges.

Plymouth Grange.

Editors Press:—Our Grango is in a healthy condition, but is not increasing in numbers as rapidly as we could wish. In a mixed community of agriculturists and miners, tradesmen and others, such as we have here, where so many are incligible for membership, our progress must necessarily be slow, and we must have time to prove that the community is benefited by our organization before we can expect to overcome, effectually, the opposition exerted against us.

Grain crops look extremely promising in this "foothill" region, and the recent rains have already been sufficient to insure a bountiful harvest. Our soil and climate, up here, is more favorable for fruit growing than grain. Twenty bushels of wheat per acre or 25 of barley is about the average yield. Thousands of acres of arable land can be had by pre-emption and homestead in this county. Some of the finest timber lands in the State are still vacant. It seems strange that so few immigrants, seeking homes, find their way to this county. How would it do to have a few thousand copies of a small pamphlet published, setting forth the natural resources of our county?

S. C. Wheeler.

Plymouth, Amador county, Apr. 12th, 1876.

[The publication of pamphlets, stating the resources and prospects of certain counties, has, we believe, been productive of good and has drawn settlers to different parts. To be of permanent advantage, a pamphlet should be free from extravagant language or overdrawn prospects. A fair, truthful story will win in the end.—Eds. Press.]

New Grange in Modoc County.

Editors Press:—The D. D. for this county, C. L. Sullivan, has just organized a Grange at this place, that appears to be more than ordinarily promising. The list of charter members was easily collected, and if the charter could have allowed 50 names, I think that they could have been had.

The officers chosen for the present year were: J. S. Linscott, M.; J. Clark, O.; I. N. Jacobs, L.; E. J. Percell, S.; J. R. Sweet, A. S.; T. H. Garrott, C.; Wm. Brown, T.; J. Bucher, Sec'y;

H. C. Givens, G. K.; Mrs. M. E. Clark, Ceres; Mrs. B. S. Linscott, Pomona; Mrs. M. Wimer, Flora; Mrs. M. E. Wood, L. A. S.

After a thorough explanation from the D. D., the installation of officers was effected in good order, with some short oral addresses from the D. D. After a short discussion as to the name, it was decided that it be called "Surprise Valley Grange."

This is the second Grange organized in this county. The other is Modoc Grange, No. 247, of which we gave a short sketch a few weeks ago. It is prospering finely. They have built a hall of the following dimensions: 24 feet wide, 40 feet long, two stories high; the lower one is nine feet from floor to ceiling; the upper one is for the use of the Grange, 10 feet from floor to ceiling. It has been during the past week arranged for the summer use of the Grange. Further work will be suspended till fall, at which time it is intended to finish the building throughout.

The prospects of crops this season is fair, as the land is thoroughly wet from the rain and snow that fell during the winter. Some of your readers will be surprised no doubt to hear that now is the time that the farmers are the busiest plowing and sowing their crops for the year. Some wheat is growing with a vigorous appearance, other has not as yet come up, and the larger part of the barley is yet to be sown, and quite a quantity of the ground is yet to be plowed, while those of our warm friends and Patrons of the Sacramento valley are looking at their green fields of grain, ready to push the lusty heads from within their green leafy abodes toward the skies to gather vigor from the passing breeze and strength from the rays of the luminary of the day. A. B. CRAWFORD.

Lake City, Modoc Co., April 8th, 1876.

Pomona Grange, No. 2.

EDITORS PRESS:—The annual election of officers of the county Grange, Pomona No. 2, of Fresno county, was held at Centerville, on April 15th, at a special meeting for that purpose. The following officers were elected:

W. J. Hutchinson, D. D., of King's River, M.; Maj. T. P. Nelson, P. M. of Adams Grange, O.; Rev. Dr. T. O. Ellis, of Garretson Grange, L.; Joseph Burns, P. M. of Garretson Grange, S.; Charles H. Welling, P. M. of Riverdale Grange, No. 251, A. S.; Thos. J. Hall, of Big Dry Creek, Master of Adams Grange, G. K.; J. L. Gilbert, P. M. of Kingsburg Grange, No. 250, T.; W. A. Sanders, P. M. of Kingsburg Grange, No. 250, Sec'y; Rev. H. L. Patterson, P. M. of Borden Grange, C.; Mrs. Anna Traber, Matron of Kingsburg Grange, No. 250, Ceres; Mrs. W. D. Black, Matron of Garretson Grange, Pomona; Mrs. A. M. Miles, Matron of Garretson Grange, Flora; Mrs. S. E. Sanders, P. M. of Kingsburg Grange, No. 250, L. A. S.

W. A. SANDERS, Sec'y.

Kingsburg, Fresno Co., April 15th, 1876.

Denverton Grange.

Bro. J. B. Carrington, our State Grange Treasurer, informs us that Grange interests are in the ascendency in Solano county. For the past few meetings an increasing interest has been manifested in Denverton Grange. It is proposed to consolidate this with Montezuma Grange, and make a stronger and better organization for effective work. A co-operative association is being formed for the purpose of carrying on a general trade at some point to be determined upon by the two Granges after consolidation. Bro. C. reports grain and fruit crops in a condition never before excelled.

Pomona Grange No. 4.

EDITORS PRESS:—The Sonoma county district Pomona Grange met on the 12th inst. A full delegation from seven Granges was present and a considerable amount of work was done for the good of the Order. The next meeting will be at Santa Rosa on the second Wednesday in May. L. Goss of Sonoma, Master; Mc. P. Hill of Sonoma, Secretary.

G. N. WHITAKER, Sec'y, pro tem.

Santa Rosa, April 15th.

Santa Clara Grange.

Patrons in Santa Clara county should remember the harvest feast of this Grange on the 22d inst. at the hour mentioned in our last issue. Bro. Webster and other visiting members will doubtless make their presence a matter of interest in "home talk" for the good of the Order.

Election of Officers.

SANTA MARIA GRANGE, No. 52, SANTA MARIA, SANTA BARBARA Co., CAL.—M. D. Miller, M.; J. Hostetter, O.; J. J. Holloway, L.; J. Thornburgh, C.; B. T. Wiley, S.; H. C. Sibley, A. S.; Mrs. G. W. Lewis, T.; Mrs. M. M. Thornburgh, Sec'y; T. D. Raper, G. K.; Mrs. S. G. Lockwood, Ceres; Miss Sarah Harris, Flora; Mrs. Mary Miller, Pomona; Mrs. Joel Miller, L. A. S.

In Memoriam.

The following resolutions were adopted by Dixon Grange, No. 19, P. of H., April 15th, 1876:

WHEREAS, In the inscrutable ways of Providence it has fallen to the lot of Brother JAS. A. ELLIS to pass from the scenes of this life, we trust to enter that better land in which we all hope to share; therefore

Resolved, That in the death of Brother ELLIS the Grange has sustained a loss which can never be repaired; that we shall sadly miss his genial presence at our meetings, and deeply feel the loss of his wisdom in our councils.

Resolved, That while we deeply feel the loss of our worthy brother, in whose manly qualities and honorable aspirations we had a fraternal interest and pride, yet we rejoice that his exemplary manhood has left with us an impress of qualities of character which can be pleasantly and profitably cherished in our memory.

Resolved, That we deeply sympathize with and tender our heartfelt condolation to the family and friends of our deceased brother in this their sad hour of bereavement, feeling that our loss is second only to theirs.—[J. M. Dudley, W. M.; Mattie McBride, Sec'y.

AGRICULTURAL NOTES.

California.

COLUSA.

WHEAT FOR THE CENTENNIAL.—*Sun*, April 15: It has been suggested to us that Colusa county ought to be represented at the Centennial in her wheat and barley. In accordance with this suggestion, we request that every farmer who thinks he has a good sample of wheat shall on the first day of May pull up by the roots a small bunch and send to the *Sun* office, labeled with the name of the person sending it, the variety of the wheat or barley, and also of how many acres it is a sample. We then propose to pick out a committee of farmers who shall choose out of this what are worthy of being forwarded to the Centennial. These shall go on with the name of the grower, the variety, and, in fact all the history that shall be sent in. We would like to have at least 50 samples to send on.

INDIAN VALLEY.—*Independent*, April 15: Since the Government lines have been established in all the important nooks of the valley and along the line of Stony creek, the possessory claim annoyance has been superseded and driven to the westward. The more enterprising farmers of the valley are giving it the appearance of a permanent settlement by erecting substantial buildings, fences, etc. Some interior tracts of land are still open to settlers, but the best portions have been located. The road authorities are busily engaged in repairing the highways leading to Colusa, the present center of trade and shipping. Presently we will be moving our wool, butter, beef and mutton towards market, and the Colusa tradesmen will find it necessary to give us clever and substantial inducements or we will stop at Williams', unload, and wait for the cars.

LAKE.

SQUIRREL SHOOTING.—*Democrat*, April 8: The riflemen are out killing off these pests, and tails are coming in pretty fast. Although the squirrel is a little harder to kill outright than a cat, still a great many of these wheat eaters are annually destroyed here by telescope rifles. It is true that if shot anywhere else but in the head they are certain to get down their holes and thereby occasion to the rifleman the loss of a tail, and in one instance it was recorded last week that a celebrated shot of Lakeport, an M. D. we believe, cut one in two with a ball, when the head ran up a tree while the tail disappeared down a hole at its base.

LASSEN.

STOCK DYING.—A telegraphic dispatch from Susanville is as follows: Notwithstanding the large amount of feed saved by the farmers here, the winter has been so severe that the surplus is exhausted and cattle and sheep are dying in large numbers. Orvan & Long have lost nearly their entire flock of 1,000 sheep.

LOS ANGELES.

WHOLE SOULED FARMERS.—Wistminster Cro. *Anaheim Gazette*: While the son of Rev. Mr. King was harrowing, a few days ago, by an unfortunate accident, the harrow was turned over so that it fell against the horses, who ran away with the harrow and were so severely injured that they will be unable to work for several weeks. While Mr. King was looking around trying to purchase another team, the citizens, generally, resolved themselves into a committee of the whole, and to save him any further trouble, sent over twenty teams on last Thursday to finish his plowing; of course it was all finished that day, and most of the ground was harrowed and made ready for the corn planter. This work was not done because Mr. King was our minister, although we all appreciate him as a friend and neighbor, but the work was done because a friend was in trouble and needed assistance. This is not the first or the second time that our people have helped each other in the hour of need.

ANAHEIM TOBACCO AT THE CENTENNIAL.—Our fellow citizen, Mr. J. R. Opitz, intends shipping to the centennial a box of the tobacco he has been so successful in growing and curing.

MARIN.

NOTES.—*Journal:* In the dining room of a dairy house in Tomales a rosebush crept through a little crack just above the mop board. A little boy of seven suggested that it should be spared, and it has now grown four feet high in the room and is regarded with much more interest than any other rose on the place. Mr. H. E. Lawrence has fitted up his dairy buildings in splendid style. They are said to be second to none in the county, except Captain Allen's. He will build a barn 100 feet long this summer. Mr. Percival stands high as a dairyman, and he has one of the best dairy ranches under lease that ever the sun shone on.

MODOC.

INCREASE OF STOCK. — *Independent:* There will be more feed for stock this year than has ever been known before since the settlement of the country began. In all parts of the county there are good prospects for abundant hay crops. Taken altogether, we believe the advantages of a severe winter outnumber the disadvantages.

MONTEREY.

FISH BREEDERS' SOCIETY.—*Democrat*, April 15: A movement is now being made looking to the permanent organization of a society for the propagation of useful fish in the waters of our county. With such view a number of gentlemen resident in this town and vicinity met Monday. The result of their conference was a resolution to incorporate and the appointment of a committee, consisting of Messrs. McGarvey, Kilburn, Winham, Carpenter and Leigh, that was instructed to prepare a constitution for the society, which it is in contemplation to form without delay. The committee will report on Monday, when probably the project will fairly be set on foot.

CHANCE FOR LABORERS.—Salinas *Record*: The approaching harvest throughout California promises to be one of unusual magnitude. In this valley we will have an unprecedented one, and the yield will run over 100,000 tons of grain. Such an immense crop will require a large force to harvest it in. Calculating that there will be about 100 headers busy at one time, these will require a force of over 600 men. Besides these, there will be required a gang of about 200 men for binding on the low land, where the grain is very heavy. This valley will therefore require, say 500 harvest hands and 200 binders. Where can we get good, reliable men to do the work? This is an opportunity for the order of the Caucasians to take such a matter in hand, and procure and furnish help to the farmers for this harvest.

NAPA.

NEW ROLLER.—*Reporter*, April 14: Jim Hall's wheat, down in Soscol, is so rank that he has had an immense boiler-iron roller made for the purpose of giving the ground a good mashing.

NEVADA.

EDITORS PRESS:—The weather up here has been rather fickle. Peaches have been half killed by frost, and we are in dread that the whole fruit crop will yet be destroyed, as it was last year. The rainfall by my rain gauge up to this time has been: October, inches, 1.73; November, 16.79; December, 6.45; January, 12.23; February, 11.49; March, 13.73; April, up to 10th, 0.65. Total inches, 63.07.—FELIX GILLET, Nevada City.

SACRAMENTO.

ANOTHER SUGAR FACTORY. — *Record-Union*, April 15: We learn that Sacramento county is to have another sugar manufactory, a company having that object in view having been formed. The buildings are now in course of construction on the ranch of J. Pool, one of the pioneer settlers on the lower Sacramento, and the establishment will, it is hoped, be in running order in about three months. It is designed to manufacture the sugar from melons, it being held that there is more saccharine matter in them than there is in beets, and that the establishment of the factory will furnish a market for the many hundred tons of that class of produce that are usually left to rot in the fields after the market becomes glutted.

SAN BERNARDINO.

GOOD FOR SAN BERNARDINO.—W. Craig writes: "Prospect for grain crop good. More acreage than usual. Bees doing first-rate; swarming lively. Several slight frosts recently, but no damage to fruit as yet, which promises an abundant crop."

SAN JOAQUIN.

PEAT MANUFACTURE.—Stockton *Independent*, April 14: On her last trip the steamer *Alice Garratt* brought up one 48-inch fire box boiler, a steam drum and other machinery for the manufacture of peat at Roberts island. The invoice was consigned to the Santa Clara Valley peat fuel manufacturing company, which will, we understand, shortly commence operations. In addition to the three companies which have been formed for the manufacture of peat fuel in this county, a fourth, called the Alameda County peat fuel manufacturing company, has been organized and has purchased 100 acres of peat land on Venice island. With two manufactories on Venice and two on Roberts island, all of which will be in operation in a short time, the long wished for solution of the problem of cheap fuel for this country would seem to be likely to reach a consummation. The fuel has been frequently tested and has been found to burn readily and to be free from all mineral impurities. Its only objection is that of bulk, although in that it is more compact for the amount of heat generated than the best of wood. It can be produced, we have heard, for two or three dollars a ton. In burning, it is free from any clinker or deleterious action upon the grate bars. Should it prove to be all that is anticipated of it, it will be a most acceptable boon to California in general and to this valley in particular.

EUCALYPTUS.—Nearly every steamer from San Francisco for points on the San Joaquin river brings packages of young eucalyptus trees, to be transplanted on the tule lands, where they grow with luxurious rapidity. They will be doubly valuable in that section, as they will not only furnish timber for fencing and firewood, but they will have the effect of absorbing dangerous malaria arising from decaying vegetation, a virtue for which they are becoming famous all over the world. The deadly marshes of the Campagna, in Italy, are being made inhabitable by drainage and the agoncy of these valuable trees.

SAN LUIS OBISPO.

A MATANZA.—*Tribune*, April 15: It is reported that Messrs. R. E. Jack and D. C. Norcross are going to establish a *matanza* for the purpose of making a market for the surplus sheep of the county. This is a good movement. From our conversation with the gentlemen themselves this establishment will be something more than a slaughter house, as the name implies. It is their intention to save the pelts, cure and can the meat and render the tallow, putting everything in the best market condition. The offal will be fed to hogs, so that nothing will be lost. The canned meats will bear exportation, the cured hams will have a ready market for home consumption, the tallow is quick sale for coin, while the tanner will eagerly buy the pelts. In this manner the entire carcass will find a ready equivalent in gold.

SANTA BARBARA.

MORE ROOM FOR FARMS.—Guadaloupe *Telegraph*, April 15: The celebrated College ranch, in the Santa Ynes valley, is about to be cut up and sold in tracts of from 80 to 160 acres. This is good news, aye, the best yet, for it is the key to the development of our whole county. Forty thousand acres more of fine wheat land is waiting for the hand of the industrious husbandman, just merely to strike the hitherto arid-looking surface.

SONOMA.

BENNETT VALLEY.—*Argus*, April 15: We yesterday received a call from I. De Turk, the well known vine grower of Bennett valley. He reports everything in the valley in a flourishing condition. Mr. De Turk has been located in the valley since 1862. He has a vineyard of 50 acres, 30 of which are planted with Mission and 20 with Zinfindel grapes. He considers the latter much preferable to the former, and is of the opinion that foreign varieties will eventually almost entirely supersede the native grapes. Mr. De Turk has an extensive wine manufactory and purchases nearly all the grapes grown in the valley, besides a considerable portion of those around Santa Rosa. Last year he made about 80,000 gallons of wine, and in 1874 a much larger quantity. Some of Mr. De Turk's vines are 14 years old. He estimates the number of acres of vines in the valley at 150, and the number of vines at 100,000. The acreage and production are steadily increasing. The phylloxera has not yet put in an appearance in the valley.

STANISLAUS.

TIMELY WARNING.—*News*, April 7: We would again call the attention of farmers to the great danger of a general conflagration in the wheat fields after they have matured and are ready for the sickle. Our fields are large, many of them covering thousands of acres, joining each other for miles without even a fence or an uncultivated line or section between them. The country is perfectly level, and high northwest winds prevail during the greater portion of the summer months. Should a fire break out in certain localities when the winds are high and after the grain has become dry enough to burn, it would endanger 40,000 or 50,000 acres. By the cutting of wide swaths between fields and curing the green hay, and afterwards harrowing the ground, it would prove a great preventive against a general conflagration in case of fire, and comparatively nothing be lost by the operation.

OAKDALE.—The business of freighting by teams from and to Oakdale is an important item and must gradually increase as the resources of the country are further developed. For the year ending March 1st, 1876, there were shipped to Stockton from Oakdale, 2,550 tons of wheat, 429,000 lbs. of wool, and 2,168 cords of wood, besides a large quantity of fruit, wine and marble brought to that place by teams from Tuolumne county. The town is pleasantly located in a grove of oaks.

TULARE.

THE AMENDED WATER LAW.—*Delta*, April 3: A bill was passed at the late session of the Legislature, at the instance of Senator Lindsey, creating each of the boards of supervisors of the three counties of Fresno, Tulare and Kern, boards of water commissioners for their respective counties, with authority to take control and to hold the water of all the streams of their respective counties for the people. The priority of rights of location are recognized and grants of right to surplus water are to be made in the order of application. These boards of commissioners are also authorized to establish rates and regulations for the government of water companies in the sales of water. This latter provision is the only change in the present law, so far as it relates to Tulare county.

Nevada.

FLOUR AND GRAIN FOR THE CENTENNIAL.—*Silver State*: Chas. Kemler is now manufacturing at the Winnemucca flouring mills a superior article of flour, which he designs shipping to the Centennial exhibition at Philadelphia. It is from A No. 1 quality of Paradise valley wheat, with the improved bolting machinery recently added to the mill. Mr. Kemler also intends making a sample of flour for exhibition from mammoth rye raised by John Guthrie in Grass valley. In connection with Mr. Guthrie he intends chartering a car, which will be loaded with wheat and rye flour and barley in the grain, all the products of this country. It will open the eyes of visitors when they behold side by side silver bricks from the Comstock, flour and grain from Humboldt, and rich gold and silver ores from all parts of the State among the products of Nevada at the great show.

THE President sent to the Senate Tuesday the nomination of John M. Coghlan for United States Attorney for the District of California, Walter Van Dyke, resigning. Coghlan, it is understood, will accept the position, leaving vacant the Chief Justiceship of Utah.

IN the United States Senate Tuesday, Sherman, from the Committee on Finance, reported favorably on the Senate bill to amend the laws relating to the legal tender of silver coin. It will be called up for consideration on Thursday.

Beautiful Things.

Beautiful faces are those that wear—
It matters little if dark or fair—
Whole-souled honesty printed there.

Beautiful eyes are those that show,
Like crystal panes where hearth fires glow,
Beautiful thoughts that burn below.

Beautiful lips are those whose words
Leap from the heart like songs of birds,
Yet whose utterance prudence girds.

Beautiful hands are those that do
Work that is earnest, brave and true,
Moment by moment the long day through.

Beautiful feet are those that go
On kindly ministries to and fro—
Down lowliest ways, if God wills it so.

Beautiful shoulders are those that bear
Ceaseless burdens of homely care,
With patient grace and daily prayer.

Beautiful lives are those that bless—
Silent rivers of happiness,
Whose hidden fountains but few may guess.

Beautiful twilight at set of sun,
Beautiful goal, with race well won,
Beautiful rest, with work well done.

Beautiful graves, where grasses creep,
Where brown leaves fall, where drifts lie deep
Over worn-out hands—Oh, beautiful sleep!

—*Ellen P. Allerton.*

City and Country Wives—How a Wife Lost Heart.

[Written for the PRESS by R. E. A.]

Much has been written upon the subject of home making, but with this as with other things, those most in need of knowledge never read.

The article in the PACIFIC RURAL PRESS of February 12th, on "Farmers' Wives and Kitchen Conveniences," should be read by every farmer in the State.

While spending a few weeks in town, I was much impressed with the contrast between the homes there and those of my country neighbors. City people who live in rented houses, and whose property would not be valued at $500 have more convenient and better furnished houses than most farmers who are worth thousands. Then our city sisters have their butter, eggs, milk, meat and vegetables furnished ready for use, while we must produce them not only for our own use, but for the market. Then most city families hire their washing done; we do our own washing, although country washing is much harder to do on account of the dirty work farmers have to do. Then most women in the city hire a seamstress at least once a year, to do up the sewing, although being exempt from much other work that farmers' wives have to do gives them much more time to sew than the latter.

"For goodness sake, what do the city women do?" exclaims the farmer.

Well, I will tell you; they have time to comb their own and their childrens' hair every day. They teach their children habits of neatness and order, read to them, superintend their studies, teach them good manners, love and caress them, so that the holy office of motherhood is a blessing and not a curse. They have time to sew buttons and strings on buttonless and stringless garments, to look over the wardrobe of each member of their family, to brush out the dust, sponge out the spots, darn the worn places and sew the ripe, so that when they wish to dress there is no annoyance. They have time to make tasty and useful articles about the house, and to prepare nice dishes for the table. If they wish to go from home, they have things made ready, and don't have to sit up till midnight every night for a week to make something to wear. And if they are sick or worn out, they can lie down and recruit exhausted nature. It is not work we quarrel with; every true woman is happier when laboring for the comfort of those she loves. But when work is not a means of making ourselves or families happy, but stands in the way of all enjoyment and improvement; when our whole life is work, work, work; when we cannot take a ride, or walk in the fresh air, or attend church or Grange, or visit the sick, or keep ourselves or homes tidy, or even take care of our children, on account of the everlasting work; when even the convicts in State's prison have more freedom and work less than we, and happy, sweet tempered young wives become careworn, irritable women, or hopeless invalids before they are 30 years old, is it not time to call the attention of blind, thoughtless men to the fact that in failing to provide comfortable and attractive homes for their families, they not only make life a burden to the wife they have sworn to love and cherish, but are undermining the foundation of their own happiness and prosperity.

"What is honor, what fortune, or fame's fleeting breath," without a happy home?

God never laid upon the weak frames of women all the care and suffering of maternity with the added burden of earning their own bread. Men's work is varied and interesting; they breath pure fresh air, birds sing and flowers bloom around them; the scenes about them are ever changing; business often calls them in the society of other men; Tom calls around in the field and they sit down on the plow and chat awhile; they meet Dick on the road and exchange the news, they meet Harry and the other boys "down town;" and all this time their devoted wife is going her monotonous round of house work, with no one to speak to from morning till night.

I will mention an instance, one of many, to show how the want of little things that could easily be provided causes extra work. A family once moved to a new country, bought land and used their last dollar to build a small shanty. They made a few articles of furniture to begin housekeeping with; a few shelves against the wall served as a cupboard, with nothing to protect the dishes and victuals from the dust and flies. They owed for their land, so both worked hard and economized. She tried by industry, neatness and taste to make up for the want of conveniences, and did without much needed help with uncomplaining cheerfulness, that his home might be a restful place to her husband.

After two years spent with no improvement on their meager beginning, she proposed that he should make a cupboard; "but I have no lumber," he objected. She sold butter and eggs and went without new clothes to buy the lumber, but it was a busy time just then, so she patiently wiped off dust and fly specks as she laid the dishes for each meal for two months more, and if the steak burned, or the cakes got cold, or the potatoes cooked too much while so doing, he was sure to scold.

At length he had time to spare, but his tools were lent; so several more weeks passed. One morning this man, whom we will call John for convenience sake, came in and began to dress for town.

"What are you going to town for?" asked his wife. "Oh, nothing particular, only Brown is going, and as I have nothing particular to do, I thought I'd go along," he replied.

"Well then," she exclaimed joyfully, "if you have nothing else to do, make my cupboard." "Your cupboard be blessed!" he exclaimed angrily, "I've heard nothing, by thunder, for the last six months but that infernal cupboard." So he slammed the door after him and drove off.

His wife took up her babe that his loud angry tones had frightened till it began to cry, and as her tears fell on its innocent face, she felt that she would rather give the precious soul back to God, than that it should live to know an experience like hers. "I could bear all" she sadly thought; "the poverty, the toil, the want of society, and the suffering for his sake, if only he seemed to care whether I was happy or not. He don't even seem to know that I've tried to be patient, waiting two years and a half for what I need every day, and yet he could make one in two days." So she went on thinking of other unkind things he had said to her, and of many things he had omitted to do for her, that most husbands do for their wives, things she had been too considerate of his feelings to mention.

When he returned at night, having forgotten all about his words of the morning, she neither pouted nor scolded, and said nothing more about the cupboard, which was never made.

He wonders sometimes that his wife never returns his caresses; she does not wonder.

Compton, March 20th.

Dressing for the Home.

What strangers think of us is of the smallest possible consequence compared with the estimate placed upon us by our children and those with whom we are brought into intimate association. If they love and believe in us, and find in us all things worthy of admiration and imitation, of how little comparative value is the approval of strangers!

All true refinement in dress, in manner, in character, is the result of an interior worth and genuineness. A lady arrayed in simple calico is often more attractive and graceful and winning than another in silks and satins and velvets. These do not create refinement or taste in the wearer; they are the merest framework of the picture, which may be a plain chromo, or a wretched daub, or—a masterpiece. With pretty calico at six and ten cents a yard there is no excuse for untidiness in our women at home. With the present styles, calicoes may be made simply, with little work, and so as to be washed and ironed with very slight trouble. It is mere folly for a woman who expects to wear daily the dress she makes up, to make it in three stories—skirt, overskirt, and basque, with ruffles and puffs and trimmings. A plain wrapper or a sacque and skirt, with bias folds for trimming, is vastly prettier for calico fabrics than more elaborate styles of making, especially for those women who have little children and who do their own work. For such, calico is the only sensible and serviceable home dress. Every time it is washed it is as clean and sweet and fresh as when it was new, and, with a linen collar in the neck, such a dress is good enough for every day wear, better far than a shabby woolen dress with soiled and draggled flounces, with torn and tangled fringe, with dirty sleeves and dust grimed into it everywhere. We must live with ourselves all the time, as well when at home as when abroad, and she who really respects herself and would keep on good terms with herself morning, noon, and night, cannot, so far as she is honest and genuine and a hater of shams, neglect to keep her person and dress tidy without injury or suffering of some sort, either in herself or those around her.

After all that may be said about it, tidiness is as much the result of training and habit as of interior necessity, and unless one is careful not to relax the sinews of determination in this respect, the exigencies of every day life and the natural tendencies to lower the tone below concert pitch will, little by little, cause negligences to creep in, until indifference to externals gradually increasing, untidy dress at home will be the rule and not the exception.

Influence of Woman.

It is by the promulgation of sound morals in the community, and more especially by the training and instruction of the young that woman performs her part towards the preservation of a free government. It is generally admitted that public liberty, the perpetuity of a free constitution, rests on the virtue and intelligence of the community, which enjoys it. How is that virtue to be inspired, and how is that intelligence to be communicated? Bonaparte once asked Madame de Stael in what manner he could most promote the happiness of France. Her reply is full of poetical wisdom. She said: "Instruct the mothers of the French people." Mothers are, indeed, the affectionate and effective teachers of the human race. The mother begins her process of training with the infant in her arms. It is she who directs, so to speak, its first mental and spiritual pulsations. She conducts it along the impressible years of childhood and youth, and hopes to deliver it to the rough contest and tumultuous scenes of life, armed by those good principles which her child has received from maternal care and love.

If we draw within the circle of our contemplation the mothers of a civilized nation, what do we see? We behold so many artificers working, not on frail and perishable matter, but on the immortal mind, molding and fashioning beings who are to exist forever. We applaud the artist whose skill and genius present the mimic man upon the canvas; we admire and celebrate the sculptor who works out that same image in enduring marble; but how insignificant are these achievements, though the highest and the fairest in all the departments of art, in comparison with the great vocation of human mothers! They work, not upon the canvas that shall fail, or the marble that shall crumble into dust; but upon mind, upon spirit, which is to last forever, and which is to bear, for good or evil, throughout its duration, the impress of a mother's plastic hand.

Our security for the duration of the free institutions which bless our country depends upon the habits of virtue and the prevalence of knowledge and of education. Knowledge does not comprise all which is contained in the larger term of education. The feelings are to be disciplined; a profound religious feeling is to be instilled, and pure morality inculcated under all circumstances. All this is comprised in education. Mothers who are faithful to this great duty, will tell their children that neither in political nor in any other concerns of life can man ever withdraw himself from the perpetual obligations of conscience and of duty; that in every act, whether public or private, he incurs a just responsibility; and that in no condition is he warranted in trifling with important rights and obligations. It is in the inculcation of high and pure morals, such as these, that, in a free country, woman performs her sacred duty and fulfills her destiny.

GOD'S SUNSHINE.—What a constant supply of God's sunshine in the heart do we need wherever our work may be, whether in wide fields or quiet corners. How much we need in order to do our little and do it well—to meet bravely changes that await us. And how freely it is given if we seek in a trusting, prayerful spirit. Truly, life is what we make it, a dark cloud or a ray of sunlight, a desolating storm or a rainbow of glory.

"Let us gather up the sunbeams
Lying all around our path;
Let us keep the wheat and roses,
Casting out the thorns and chaff;
Let us find our sweetest comfort
In the blessings of to-day,
With a patient hand removing
All the briars from the way."

A SIGN OF FRENCH PROGRESS.—The *British Medical Journal* says that the Bureau Municipal des Nourrices, that huge, ancient, and costly institution by which the municipality of Paris "assisted" the *bourgeoises* to find wet-nurses in the country for their children, is about to disappear. The cost of maintaining it last year was 500,000 francs ($100,000) and the mortality of the unhappy children whom this singularly French institution "assisted" to separate from their parents varied from 45 per cent. downward. It may be hoped that French mothers of the middle and upper classes will learn more and more to perform their natural duty of suckling their children. In that case we shall hear less of the depopulation of France. This institution is upwards of a century old; its disappearance is a very healthy sign of national progress.

"MADAM," cynically observed a gentlman to a leader of fashionable society in Washington, "woman don't seem to be as much of a 'clinging vine' as she once was," "That's because of the extreme insecurity of the manly oak," she replied.

Women's Department at the Centennial.

The women's department promises to be a grand feature of the Centennial exhibition at Philadelphia. Several years ago a women's Centennial committee was organized, and through the persistent energy of that organization, local organizations all over the country and even in other countries, were formed and have accomplished much toward securing a fair representation of the industries of women at the great Centennial show which is to be opened at Philadelphia next month. The purposes of the women's department were made known to the women of foreign countries at an early day, and we learn from the report of Mrs. E. D. Gillespie, the presiding officer of the Centennial committee at Philadelphia, that encouraging reports have been received from England, Spain, Austria, Germany and Japan, and the fact is particularly noted that the first article for the department was sent from England. Miss Brewster, Miss Hosmer and other ladies in Italy, have worked like Trojans to secure a liberal representation of the industries of the women of Italy. From the beginning of the movement the object in view has been to show at the exhibition what women are capable of accomplishing in the various industrial pursuits, and to exert influences tending to develop new fields of usefulness and new profitable employment for females. In addition to the space that women's work will occupy in the main building, a separate building has been erected exclusively for the exhibition of articles exhibited by the ladies our own and other countries. The annual report of the treasurer of the committee states that the donations to the department during the last year were as follows: Florida, $85 25; District of Columbia, $1,292; Maine, $750; Connecticut, $3,100; Ohio, $9,291.14; Kansas, $150; Idaho, $65; North Carolina, $20; Utah Territory, $10; New York, $1,019; Indinia, $20; California, $520.80; Rhode Island, $4,350; Massachusetts, $6,800; New Jersey, $3,156.29; Pennsylvania, $15,000. Total, $45,626.48. The shares in the stock for which the subscriptions were secured through the women's department amounted in value to $26,920. Massachusetts contributed 478 shares, Connecticut, 170; New Jersey, 458; California, 651; Arizona, 25; West Virginia, 1; Montana, 1; Pennsylvania, 178, and Philadelphia, 1,932 shares. The women of Massachusetts promise to increase their contribution to $10,000. This feature of the exhibition is not only calculated to advance the interest of female industry at home and abroad, but it is believed that it will prove singularly instrumental in promoting good feeling and strengthening the bonds of friendship between the people of different sections of our common country.

MANUAL LABOR AND HAPPINESS.—Our commercial affairs and domestic comfort, happiness and prosperity are so dependent on manual employment, that if one desires to become the possessor of anything, he must labor for it, and after he has acquired the desire of his ambition, he will be required to labor to take care of it. Nevertheless there is cheering comfort to be derived from active employment. It is not dishonorable to labor with one's own hands, notwithstanding certain castes of society will persist in sneering at him or her who earns a supply of daily bread by honest industry. The The great Creator is represented as a manual laborer. The twinkling stars are said to be the work of His hands. If He labored, why should not his subjects apply their physical energies to some industrial employment? No man or woman, girl or boy, should ever feel the least mortified or chagrined at the thought that it is said he or she "works." It will require a vast deal of talking and writing to correct the erroneous notions of many persons concerning manual labor, both among the wealthy and the industrial classes also. The tendency of the popular judgment is that manual labor is dishonorable. But we work because we find far more comfort, pleasure and happiness in rigid industry than we should find in idleness. If a person does not set himself at some sort of industry, the devil will soon provide business for him. It will not injure any one to work. Hard-fisted industry will develop strength.

WOULD-BE SUICIDES IN ENGLAND.—The *Pall Mall Gazette* tells of a young farmer at Hereford who was charged before a magistrate with being drunk and threatening to commit suicide under the following romantic circumstances: The defendant was found by a constable, having an altercation with his sweetheart, who, in the warmth of the discussion, remarked that she would not "have anything more to do with him." Stung to madness by the prospect of a blighted life thus extended to him, the young farmer threw up the reins of his horse, gave the young lady his money, watch and trinkets, and bidding her a touching farewell, threatened to throw himself headlong into the river Lugg, which conveniently ran close by. The horrible threat was, happily, not carried into execution; for on hearing it, the heart of the young lady immediately melted, and, instead of walking off with the money, watch and trinkets, as some young ladies would have done, she took charge of the horse and led it and the impulsive young farmer home in safety. The bench "severely admonished" the defendant, and fined him 10 shillings, and 13 shillings and sixpence costs. The fact that the object of his affections pulled him back by the coat tails, when contemplating a leap from time into eternity, will, however, do more than fine or magistrate' admonitions to teach the young farmer how sublime a thing it is "to suffer and be strong."

Planning Houses.

The planning of houses is left almost entirely to men, and most women are content to have it so, and to look upon the whole question of domestic architecture as one with which they have nothing to do. But if women would study this subject and have intelligent and practical ideas on the arrangement, finish and convenience of the houses they live in, their suggestions would be of great value to architects, and doubtless result in an increase of health and household comfort. "The wise woman buildeth her house." Taking this in a literal sense, every woman who is "wise" will be able to plan her house so that she will will find it pleasant to live in. The ordinary way of building a house is to decide how much money can be put into it, then what its size shall be, and then how it shall be cut up into rooms. The reverse is the proper method. The sitting room or family room should first be determined on, and from this as a center all the others should radiate. Each family will naturally give law to its own habitation, and impress its own individuality upon the house it lives in. Every woman has her own way of doing housework; and if she is able to plan her house herself, she will arrange its conveniences in such a way as to make it easy for her to go through the ordinary routine of domestic industry with the least possible friction. She will not be likely to forget to put closets in sleeping rooms, as the architect of Vassar college did. She will have water carried in and out of the house; she will so plan her pantry and kitchen and dining room as to bring her work there into the smallest possible compass, and make the greatest saving of steps while doing it. She will not have the two or three stair steps from the kitchen into the wood house that are so often found in country houses. She will plan her house so that it can be pleasantly furnished when it is done. How often do we find bed rooms with no suitable place in them for the bed, for the bureau, for the stove; and sitting rooms arranged as to light, heating and ventilation, without any regard to comfort or convenience! As women pass most of their time in their own dwellings, they ought surely to know better than men how these dwellings should be arranged and finished so as to give the largest results in comfort and tastefulness, and be able to advise intelligently as to the best method of securing these results.

Pretty Napkins.—There is quite a pretty fancy now-a-days for making up useful articles for the household, such as table covers, tea and fruit napkins, etc., out of comparatively cheap and homely material, and then beautifying it by simple embroidery, in striking patterns and well selected colors. We give instructions in this issue for embroidering a set of tea napkins. The material is gray linen, the kind that has a darker gray ground with light gray stars woven in the pattern. Cut the linen into squares of the requisite size for the napkins, and fringe the edges. Secure the fringe from further raveling by an over-casting stitch at the top, done in Turkey red. Get the exact center of the napkin, and work either the monogram of the owner or outline a cluster of leaves in chain stitch with Turkey red, alternated with blue embroidery cotton. Work a Grecian border, double lines, in the two colors, and at each corner outline a leaf or small cluster of leaves, in chain stitch. Or else work dots in satin stitch or Chinese knotting in the center and upon each point of every star on the linen; a large dot for the center, smaller ones for the points and fine ones to fill up the interstices in the colors mentioned. After finishing press neatly on the wrong side, and fold triangularly, and we feel sure you will be entirely satisfied with the result. A friend of ours who has a set, together with a large oblong napkin for the tea tray deeply fringed, says she has been asked again and again where she was so fortunate as to find so unique an article of table linen. Some persons prefer to work the pattern with wool, either split or single zephyr, and for a table cover this would be pretty—thread is more suitable for napkins.

One of the most prolific sources of matrimonial difficulties is the lack of knowledge on the part of wives of the duties of house-keeping. In these days there are a hundred young ladies who can trum a piano to one who can make a good loaf of bread. Yet a husband has so much of the animal in his nature that he cares more for a good dinner than he does—so long as his appetite is unappeased—to listen to the music of spheres. Heavy bread has made many heavy hearts, given rise to dyspepsia—horrid dyspepsia—and its herd of accompanying torments. Girls who desire that their husbands should be amiable and kind should learn how to make light bread. When a young man is courting, he can live at home; or if he has to go a distance to pay his addresses, he usually obtains good meals at a hotel or eating house; and when he is married and gets to housekeeping, his wife assumes the functions of his mother or his landlord, and it is fortunate for her if she has been educated so as to know what a good table is. Those who are entirely dependent upon hired cooks make a sorry show at housekeeping. The stomach performs a very important part in the economy of humanity, and wives who are forgetful of this fact commit a serious mistake. Even the lion may be tamed by keeping him will fed.

A Family off for the Black Hills.

Young Folks' Column.

The Cross-Patch.

I know a little black-eyed boy with tight curls all over his head. He is very sweet and pleasant when things go right; but he has days when everything seems to go wrong, and then he is called Cross-Patch. His other name is Frank. When these days come round, everybody wishes it was night.

Cross-Patch comes down to breakfast with a red nose and a snuffle, and drags his feet along as if they were flat irons.

Papa hears him coming, and says, "Falling barometer, heavy showers, and possibly, storms." Papa says this as if he were reading the newspaper, but he is really reading Frank.

As Cross-Patch comes into the room and bangs the door, Tom, his big brother, exclaims, "Indicative mood!" and Susie, who goes to the high school, laughs and says, "Objective case, *dis*-agrees with everybody in the first person singular!"

"I don't care! I ain't and you shan't laugh at me!" roars Frank.

"Croth-pash!" lisps little Lucy.

"Come here, Frank," says Mamma, very gently, "and tell Mamma what is the matter."

"Phebe got soap in my eyes, and she washed my face hard in the middle, just as if I didn't have any nose at all, and the comb stuck in my hair every time, and hurt, and—"

"And you got out at the foot of the bed!" says provoking Tom.

"No, I didn't. I got out at the side; and tisn't fair!" cries Frank.

"No," says Papa, with a sigh, "I see it isn't; it is very cloudy and threatening."

Then they laugh, and Cross-Patch gets worse and worse. He sits down at the table, and takes a baked potato; it is hot, and burns his fingers, so he pushes his plate away very hard, and upsets a glass of milk, and has to be sent up stairs. He puts an apple in his pocket, and goes off to school without any breakfast. On the way a big bad boy takes the apple away from him, just as he is going to take his first bite.

At school things are no better. The hardest word in the spelling lesson is t-h-r-o-u-g-h, *through*, and of course the teacher gives him that word to spell, and he sticks in the middle of it, can't get *through*.

Then comes the multiplication table, and the teaches asks him "9 times 4?" and he answers, "63." The crosswise has got into his brain, and he keeps saying "63', till he thinks it is right; and then he is very cross when he is told to learn his lesson and stay after school to recite it.

As he goes home he wishes he could meet the man that made the spelling book, and the other man that made the multiplication table, so that he might knock them both down, and jump on them with all his might a long time; but as he doesn't see them anywhere, he thinks he will play ball.

He plays that the front gate is the spelling book man, and that the lantern post is the man that made the multiplication table, and he sends the ball, first at one, and them at the other, with great fury. At last, in a very wild throw, Cross-Patch hits the multiplication man—I mean the lantern post—on the head. The pieces come rattling down on the sidewalk, and this dreadful noise frightens away all the crossness. Frank runs into the house to his Mamma, and tells her how sorry he is, and begs her to tell Papa all about it, and gives her all the money in his little savings bank to pay for the broken lantern. Then Mamma asks him if he is sure that Cross-Patch has gone away entirely, and he cries a great shower of tears, and says, "Yes, Mamma, every inch of him!" and Mamma gives Frank some supper, and puts him to bed, and tells him to pray to the good angels to drive Cross-Patch very far off in the night, so that he can't got back for a great many days.—*Wide Awake.*

A Little six-year-old city boy went into the country visiting. He had a bowl of bread and milk. He tasted it, and then hesitated a moment, when his mother asked him if he didn't like it, to which he replied, smacking his lips, "Yes, ma'am. I was only wishing our milkman would keep a cow."

Good Health.

Candy.

So much has been written about the relations of candy to health, and particularly to diseased teeth, that it would seem presumptuous to add even a word. But supposing the question cannot be settled at once, there are some facts about candy, or sugar rather, which I have not seen mentioned. As a food, it is a failure. The chemist tells that cane sugar contains three elements. The human body has some fourteen elements. How can three elements make fourteen? Dogs fed on sugar died in 40 days. Their eyes ulcerated and came out. Dogs fed on nothing lived just as long. The system has a natural loathing for food containing nothing but sugar. We pass then to the occasional use of sugar. Does it affect the condition of the organs of the body? Several years ago Dr. S. Weir Mitchell, of Philadelphia, proved that he could produce cataract of both eyes in half an hour, by simply injecting a teaspoonful of a saturated solution of sugar beneath the skin of a frog or Guinea pig. Dr. B. W. Richardson, of London, has confirmed this, and these results are received by the medical profession as satisfactory. Now if a teaspoonful of sugar solution will make a frog or Guinea pig totally blind in half an hour, can sugar be regarded as an innocent substance for young and growing persons, especially when they diet so largely upon white flour, which is chiefly composed of starch, whose chemical formula is identical with that of sugar? According to Dr. C. R. Agnew, of New York, out of 1,000 children under 18 years of age, in a large school in his vicinity, 703 were found with defective organs of vision when examined with the ophthalmoscope. Have we a right to infer that sugar and starch diet have anything to do with this large percentage of deficient eyes? The experiments quoted show that sugar does act promptly, quickly, and terribly upon the substance of the crystalline lens of lower animals. Can we deny the probability of its action upon the eyes of human beings? Mark, we do not say it does thus act. We simply raise the question. We wish the State board of health would have it investigated, as it is a matter germane to their invaluable department of labor.

Now for candy and diseased teeth. Lime and phosphorus form the chief mineral ingredients of teeth. The organic matter (*i. e.* that like sugar) amounts roughly to about 20 per cent. of the whole tooth. The mineral matter and water make the remaining 80 per cent. In other words, sugar gives the teeth, under the most favorable construction, 20 per cent. of its food only, when it is used as an aliment. But sugar cannot be used as an exclusive aliment, as death would ensue. Used occasionally when the other food has its normal amount of mineral ingredients, candy, when pure, probably does not harm the teeth. But used frequently, in connection with flour diet, there is no noubt that it will promote the decay of teety. When organized substances are fed, they must receive all the elements that enter into their composition. Failing to receive these, their vitality is impaired and decay results. Teeth fed with candy do not receive any mineral elements. No phosphorus and no lime are found in candy, but they constitute the main part of teeth. Hence we see that candy and teeth are not interchangeable things, and that candy-eaters must not be surprised if their teeth fail.—*Journal of Chemistry.*

Dangers of the Shop.

We give in what follows an abstract of an instructive lecture lately delivered before the Society of Arts, by Dr. B. W. Richardson, on "Industrial Pathology; or, the Influence of certain Injurions Occupations on Health and Life." There are, said the lecturer, seven active causes producing disease amongst the working classes—first, noxious inhalation of dust and gases; second, exposure to soluble chemical substances; third, mechanical impact of foreign bodies; fourth, physical injuries from unnatural postures, etc.; fifth, exposure to damp or impure air; sixth, contact with organic parasitic forms; and seventh, excess of muscular work, etc. Turning his attention in the first instance to the injury caused by the inhalation of various sorts of dust, Dr. Richardson alluded to the growth of oidium on the vine, which growth was checked by the blowing of sulphur dust on the plant. Oidium was described as a white parasitic fungus, which appeared not only on the vine, but also in the throats of persons suffering from diphtheria. Ammonia often proved injurious to hatters. The vapor of turpentine produced a specific form of disease, and was more injurious to house painters than the lead to which their peculiar complaints were commonly attributed. Sulphide of carbon was useful as an anæsthetic agent, but produced disease and insanity when inhaled for any time by men who used it in their occupations. The fumes of nitric acid affected furriers deleteriously. The vapor of chlorine affected bleachers injuriously at first, but on continued use became innocuous. Aniline produced two distinct forms of disease—one neuralgia, the other ulceration, and when the inhalation resulted in death, the flesh was found to be of an aniline or mauve color. Nitro-benzine vapor produced headache, and the vapors of metals caused various diseases of the lungs, brain and stomach.

Domestic Economy.

How Vienna Bread is Made.

Prof. Horsford was one of the United States scientific commission to Vienna at the world's fair of 1873. He has made a report concerning the famous Vienna bread, which has been issued from the Government printing office. He describes the Vienna bread as follows: "It is a smooth, irregularly rounded small wheaten loaf, of uniform weight. It presents a rich reddish brown crust and a delicately shaded yellow, almost white, interior. It is always light, evenly porous, free from acidity in taste or aroma, faintly sweet, without the addition of saccharine matter to the flour or dough, slightly and pleasantly fragrant, palatable without butter or any form of condiment and never cloying upon the appetite." Good fresh middlings flour, Prof. Horsford says, would compare favorably with the average Hungarian flour used in Vienna. The next requirement is fresh pressed yeast. This is already made in the United States. It is not difficult to manufacture, since it is made by skimming the froth from beer mash in active fermentation.

Next follows the very important operation of mixing. Into the middle of a zinc-lined trough, about two and a half feet wide and eight feet long, semicylindrical in form, the Vienna baker empties his flour sacks. Then into a pail holding about five gallons, equal parts of milk and water are poured and left to stand until the mixture attains the temperature of the room, between 70 and 80 degs. Fah. It is then poured into one end of the trough and mixed with the bare hand, with a small portion of the flour to form a thin emulsion. The press yeast is next crumbled finely in the hands and added in the proportion of three and a half ounces to every three quarts of liquid, and then one ounce of salt in same proportion is diffused through the mixture. The trough is now covered and left undisturbed for three-quarters of an hour. Then follows the incorporation of the flour from the neighboring heap; and as this is the last of the ingredients we may write the recipe as a whole, thus: Flour, eight pounds; milk and water, three quarts; pressed yeast, three and a half ounces; salt, one ounce.

The mass of dough, being left quiet for two hours and a half, becomes a smooth, tenacious, puffed mass, of yellowish color, which yields to indentation without rupture and is elastic. It is now weighed into pound masses, and each lump is then cut by machinery into 12 small pieces, each of three-quarters of an inch in thickness. Of each one of these the corners are brought together in the center and pinched to secure them. The lump is reversed and placed on a long dough board for further fermentation, until the whole batch is ready for the oven. Before being introduced into the latter the rolls are again reversed and restored to their original position, having considerably increased in volume, to be still further enlarged in the oven to at least twice the volume of the original dough. In the oven they do not touch each other, and the baking occupies about 15 minutes. To glaze the surface they are touched in the process of baking with a sponge dipped in milk, which, besides imparting to them a smooth surface, increases the brilliancy of the slightly reddish cinnamon color and adds to the grateful aroma of the crust. No peculiar form of oven is required, the only necessary point being that the receptacle shall be capable of maintaining a temperature of about 500 degs. Fah.

French Cookery.

Meats should be selected with a view to the methods of cooking to be adopted. The French never boil meats unless for the purpose of making soups. They regard boiled meats as comparatively worthless and never serve them unless in some prepared form, to restore flavor and lost nutrient principles. We forget in this country that to boil food, be it meat or be it vegetables, is to extract from it, first, its volatile aroma, then its essences or juices, its nutritive power; and these go out into the hot water which is stupidly thrown away. Boiling meat or vegetables in France is to make soup, and so saving are they that even the water in which beans and cauliflowers have been boiled is always kept to serve as a basis for vegetable soup. Every liquid which has received the extracted flavor of a boiled substance is looked upon as precious, and is employed again in some form, so as not to waste the properties which it has acquired. The entire system of French cooking, both in form and practice, is to save the whole nutritive elements of every substance, to pass into the stomach, instead of allowing it to be poured down the sink spout or sending it to the pigs. The lesson taught us in this regard should be heeded. Butchers' bones, and those of fowls, which here go to the waste bucket or to the soap boiler, covered with fragments of meat and loaded internally with rich suet, are in France carefully sought for and employed in making soups. Nothing is wasted which can be used for human food. Soups are so common it may be said the nation lives on them. The average earnings of laborers in France do not exceed 30 cents a day, and yet from this pittance they continue to live comfortably. The average of health in the population is much higher than in most countries, and the average length of life is as high as 38 years.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week.	1 month.	3 months.	1 year
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... .. 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, April 22, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Harvesting Machinery; The Wisconsin Reward; Magnesia as a Fertilizer, 257. Condensed Milk; The Outlook; Evaporation and Percolation, 264. The Dairy Association; Agricultural Seat at the University. Those Fresh Grapes; Successful Frost Fighting; Tahiti, 265. New Books; Patents and Inventions. 268

ILLUSTRATIONS.—The Buckeye Self-Raking Reaper, 257. Scene in Tahiti, 265.

CORRESPONDENCE.—Notes from Santa Barbara County; Farming, Etc., in Chile, S. A.; Under-drainage. 258-9. Alameda Foundry—San Jose, Cal., 268.

AGRICULTURE.—Correct Practice with Eucalyptus, 259.

POULTRY YARD.—Roup; Leghorns as Layers, 259.

THE DAIRY.—Benicia Cow; Gilroy Dairymen; Dairy Association, 259.

THE VINEYARD.—Wine and the Phylloxera; Packing Raisins, 259.

PATRONS OF HUSBANDRY.—A Journey by the Worthy Master of the State Grange; Address Before Antioch Grange; From the Granges; Election of Officers; In Memoriam, 260-1.

AGRICULTURAL NOTES from various counties in California and Nevada, 261.

HOME CIRCLE.—Beautiful Things (Poetry); City and Country Wives—How a Wife Lost Heart; Dressing for the Home; Influence of Woman; God's Sunshine; A Sign of French Progress; Women's Department at the Centennial; Manual Labor and Happiness; Would-be Suicides in England; Planning Houses; Pretty Napkins, 262-3.

YOUNG FOLKS' COLUMN.—The Cross-Patch, 263.

GOOD HEALTH.—Candy; Dangers of the Shop, 263.

DOMESTIC ECONOMY.—How Vienna Bread is Made; French Cookery, 263.

QUERIES AND REPLIES.—Vinegar from Wine; Angora Goats; Inquiry for Land, 265.

USEFUL INFORMATION.—Fraud in Graham Flour; To Make Putty; Hardened Paper; Alcohol as a Food Preserver, 266.

GENERAL NEWS.—General News Items and Miscellaneous Paragraphs, on 268 and other pages.

MISCELLANEOUS ARTICLES.—Important Land Decision; The New Homestead and Pre-emption Law of Congress, 259. The Orange and Lemon Pest; California Hops, 268. Amended Squirrel Law, 270.

NEW ADVERTISEMENTS.

Eagle Hay Press, Kimball Manufacturing Co., S. F.; Rupture, Rowe Elastic Truss Co., S. F.; Agricultural Implements, Orrin Taber, San Jose Cal.; Taber's Improved Hay Fork, J. T. Hoyt, San Mateo, Cal.; Merchant Mill For Sale, S. A. Pollard, San Luis Obispo, Cal.

The Week.

In the country—growth and gladness everywhere. The hum and ring of work comes to us from all the fields and gardens of the State. The bright skies have favored the busy farmer, and the solid days have measured their better lengths, a solid week through the many roads of preparation by which the husbandman reaches his harvest home. Already the clouds of possible disasters are breaking, and the birds of realization are so nearly in hand that they are worth quite as much as the birds of promise which have been singing in all the bushes since the early rains. The chickens of prosperity have already so far pierced the shell of hope that they may be safely counted. There are nervous twitches of joy in Del Norte and San Diego, while the breadth of visual expression, extending from the foothills to the coast, pours forth its vocalism in the rejoicing along the San Joaquin.

In the city—the promise of prosperity in the country gilds every prospect. Money in the hands of the farmer means success and reward to all who link his acres to the outer world and bring a world's production to exchange for his own. Already the abundance of the garden cheers the city-bound, and soon the orchard and the field will follow. From amidst the cords of asparagus which line our streets and the cords of strawberries which are beginning, we mingle our thanksgivings with those which come out from breast-high grain fields for the plenty of this glorious year.

Condensed Milk.

A correspondent asks us for information concerning manufacturing milk into the commercial article known as condensed milk. The subject is wide enough for a lecture, but we will endeavor to present concisely the important facts of processes and materials as they have passed under our observation.

The process of condensing milk consists in evaporating from it three-fourths of the water which enters into its composition, and incorporating with the concentrated product about three-eighths of its own weight of sugar for preserving it. The condensing process consists in driving off the water, and this is done in a vacuum, because in a vacuum steam is generated at the low temperature of 135 to 145 deg. Fahr. This low degree of heat which is required is an advantage both because of the economy of fuel and because it is almost impossible to preserve the delicate characteristics of milk if evaporated at the boiling point in air. The condensing is done in what is called a "vacuum pan," an apparatus like that used in sugar refineries.

The process of manufacturing practiced in one of the factories of Gail Borden, who perfected the invention of condensed milk, is as follows: The milk, when received at the factory, is run into square vats. From these it is drawn into heating baths. These baths are round, having a coil of steam pipe at the bottom, and they are filled nearly full of water. In this water the milk is placed in copper pails or cans and heated from 150 to 175 deg. From these cans the milk goes into egg shaped heating wells, where it is raised to the boiling point, 212 deg. From the heating wells the milk goes to the vacuum pan, being drawn in by atmospheric pressure, for as the air pumps exhaust the air in the pan the heated milk flows into the vacuum. The sugar is dissolved in a part of the milk and goes last into the pan, just before the evaporation is complete. It will be noticed that the milk is heated in two receptacles before going into the vacuum pan. This is done because heating up to the boiling point in a single vessel occasions a great adhesion to the vessel and causes great trouble in cleaning. Heating in two receptacles obviates this trouble. The stream of heated milk flows into the vacuum pan continually while the evaporation is going on. In Mr. Borden's factory, to which we allude, the rate of evaporation was about 2 000 quarts per hour. When the milk is drawn out of the pan it is ready for canning. Making the tin cans in which the condensed milk is packed, and filling them with milk, is done by proper machinery in the factory. This is in brief the process of condensing milk. Of course there are minor details of operation which it is not necessary to describe in this place.

The greatest point in condensing milk is the expense of the machinery employed. There is no process of milk manufacture which requires so much capital for a start. There have been during the last few years many efforts at the East to simplify and cheapen the apparatus, but they have been unsuccessful. The vacuum pan in itself costs as much as a full furnished dairy house. The price of a pan from four to six feet in diameter is about $1,800. The pan is a complex apparatus, made of sections of cast iron bolted together. To apply the heat it is furnished with a net work of tubes, which lie in the milk, and for exhausting the air it has an air pump above. These features, in connection with the glass tubes, gauges, etc., are of course expensive to produce. In order to run the establishment a large steam boiler and engine are needed. Tanks, vats and pumps are indispensable, and a good building to house the expensive machinery must be constructed. Making as close an estimate as we are able at this time, the expense of building and equipping an establishment would not vary greatly from $12,000. A factory of this size would have capacity to work up the milk of about 1,000 cows. The daily running expenses for labor, fuel, etc., would be about $25 per day. Of course there could be a reduction of needed capital if a factory were to be erected to use the milk of five or six hundred cows, but the reduction would not at all be equal to the decrease in amount of milk.

As we have said above, the process evaporates about 75 per cent. of the water in the milk. When the sugar is added and the substance completely made, the product will be one pound of condensed milk from three pints of the crude article.

Another important consideration in connection with condensed milk is the market for it. This has been limited in this country, although the consumption is steadily increasing. The exportation is also on the increase. The records of the United States custom houses show that the value of the condensed milk exported during the first eleven months of 1873 was $71,233; during the corresponding months of 1874 it was $82,650.

We have often thought of the condensed milk industry in connection with the dairy resources of our State. It cannot be doubted that we have on this coast some peculiar advantages for the manufacture. First, to produce a good article of condensed milk the raw material must be perfect, for condensing only fixes taints and impurities if they exist. Milk which skillful makers can transform into fair cheese and butter cannot be used at all for condensing. This is one of the troubles which Eastern manufacturers have had to contend with. They are obliged to buy their milk from perhaps 50 small dairies, and it has been only at the cost of most vigilant watching and constant admonition that the milk handled by so many men could be had of uniform excellence. Here we would have the advantage of better material to work with. First, because our purer air aids in the production of better milk, and second, because it would be possible to locate a factory on one of our large dairy ranches, where all the cows and milkers could be under the charge of one competent superintendent, and he could enforce the necessary care which would result in pure milk for the condenser.

The question here, as at the East, is as to the market which the product would find. We have endeavored to ascertain as nearly as possible the amount of condensed milk handled per year in this city. The task has been difficult because the article does not appear in proper name in the merchandise receipts. Our estimate is that our merchants handle in the neighborhood of 2,000 cases per year, the value of which would be about $18,000. A large part of this amount is used in the Asiatic trade. How much this trade could be increased we have no means of knowing.

As the figures stand there is nothing but positive ruin promised to any one who embarks in the business in this State. It would not pay at all to erect a factory and invest the necessary capital unless the milk of 600 cows could be manufactured. Now a 600 cow condensing factory will turn out $1,000 worth of condensed milk per day, and in 18 days would turn out as much as our present trade could handle in a year. Nor would the entire export trade of the United States keep a single factory in operation. The Eastern factories have found their market in the consumption in the Eastern cities, where the wretched quality of the milkman's liquid has driven the consumers to condensed milk, and in the demand for ship and army stores. There is an immense trade in condensed milk in London and on the continent of Europe, and this has been built up by the enterprise of the factories in Switzerland.

It does not appear from any light which we have been able to gain that a condensing factory would pay in this State unless some new market can be opened up for the product. If the article could be made in a churn or a cheese vat, it would doubtless be profitable for a small dairy to undertake to supply the present demand in this State, but there has been as yet no success in devising a cheap apparatus for doing the work. So far as we can see, condensing milk stands among a throng of honorable industries and manufactures which could be prosecuted nowhere in the world better than in California, but which cannot be undertaken because no outlet can be perceived for the finished product.

The Outlook.

Notes which come to us from all the grain growing regions sound the satisfaction which former indications have foreshadowed. The foreseeing observer declares that never before has such a harvest blessed the State. There is yet a matter of drying winds among the possibilities, but there is no need to bewail the thorn before one feels it. Rather it is pleasurable to press the rose and inhale its fragrance. The San Joaquin fields promise yields beyond all existing warehousing, and the amounts which the farmers will have to sell promise to be unprecedented. Calaveras county reports greater area; early and late sowing looking splendidly; grain high enough to shade the ground from drouth, and a probable hay and grain product one third greater than any previous year. In Stanislaus they have had lightning flashing and downpours, and the timely rain has released the fields from the bonds of previous winds. Napa has valleys filled with grain two and three feet high and a promise beyond compare. Alameda reports one of the finest seasons in all her fields and gardens. Yolo pronounces the rain sufficient for the early sown grain, which stands two and three feet high and of deep healthy color. The county's yield is estimated one-third greater than usual. Contra Costa says that the steady rainfall of Thursday night has placed the grain beyond all chance of failure. From Bay Point to Bantas the wheat and barley fields are continuous, and the grain stands from one to four feet in hight. Tuolumne expects an unprecedented yield of grain.

The fruit harvest has suffered in some parts by the frosts, but the aggregate is sure. In some parts of Napa the fruit is reported lost, the grapes touched and the acorns possibly killed, which will pinch the pigs on a thousand hills. But Napa as a whole expects plenty from her orchards. Tuolumne's fruit is safe thus far. Calaveras promises largely. Yolo mourns her peaches and apricots. Other fruit counties have lost by frost but there is not yet a general harm accomplished.

Milk and honey will be abundant. Marin reports the rains the turning point toward success in this year's grain and feed. San Diego announces that the bees are doing well, both as to extension and honey making, and while the season for white sage is not yet open in the mountain districts, from which comes our best honey, other feeds are abundant, and the season's work is fairly begun with the most favorable auspices. If nothing shall happen, the crop will be largely in excess of anything ever produced in this county.

Evaporation and Percolation.

Perhaps no subject is of greater importance to the California agriculturist than water. Water in all its peculiarities of downfall and uprising by atmospheric influences; how to get it on the soil; how to hold it where it will do most good—in fact everything concerning the action of the elements is so closely connected with the success of our agriculture that every advance which science and practice makes in the study of water should receive the attention of our farmers. G. J. Symons, secretary of the British meteorological society, read a paper at the recent session of the Institute of Engineers, giving some very interesting experiments devised to measure the extent of atmospheric evaporation. His statement contained a proposal to gauge, by an apparatus as simple as an ordinary rain gauge, the loss of water from the re-evaporation of rain; the usual method of learning the hygrometric state of the air being by the dry and wet bulb thermometers. The gauge includes a percolation gauge, which was larger but did not differ greatly from the Dalton gauge, started by the late Mr. Dickenson at Abbott's Langley, to which the author had added one filled with fine sand to ascertain maximum percolation. Lastly, evaporation from the surface of water was determined by floating the gauge in a vessel or in some river, open tank or reservoir, and it was assumed that the water in the inner vessel acquired the general conditions of that in the outer vessel. The rain gauge and percolation gauges were not new, but the form employed for determining the amount of evaporation from the surface of water had not been proposed elsewhere; moreover, the four series of observations had never been brought forward in juxtaposition and with apparatus of uniform construction. Tables were submitted of the rainfall from observations uninterruptedly maintained since 1855; of the percolation, which by subtraction showed the evaporation from the ground, since 1855; of the percolation through sand, which furnished also the evaporation from sand, since 1860; and of the evaporation from a surface of water. The author gave the average rainfall as 25 inches, the average percolation through sand as 20 inches, and the evaporation from the surface of sand as five inches; percolation through earth as seven inches; evaporation from the surface of the earth as 18 inches; evaporation from the surface of open water, 20½ inches; and the gain of water in an open tank, four and one half inches only. These tables showed that all the water that could be relied upon as retained for use was a depth of seven inches, if the rain fell upon a permeable soil, and of four and one-half inches if it fell on an open tank or reservoir. To secure more than this, covered reservoirs or close vessels to prevent evaporation would be necessary. The phenomena of peculiarly dry years—years in which rivers and springs have been deficient, viz., 1861, 1864, 1868, were discussed. Springs and rivers had been redundant in 1852-53, in 1857-58, in 1860, in 1866 and in 1872. It was manifest that with a view to provide for the permanent and continuous needs of large communities, the probable fluctuation of delivery of water in a river might be gathered by watching closely the sequence indicated by the percolation gauge. Heavy rains and storms in summer might produce a river flood, yet fail to replenish the springs; and a long frost, even with considerable snow, might leave rivers and springs very short of water for the following autumn; and a dry winter imperilled the permanence of river discharge more than a hot summer. The latter, however, might succeed a dry winter, under which circumstances the deficiency of water in the rivers must become alarming, in view of the present tendency to the aggregation of populations. One result of the comparisons deduced from the tables attached to the paper was that the storage of water might be more safely and largely secured in a porous subsoil, covered with a turfed surface, than in ponds, reservoirs or other accumulations of open water. The author added that frequent thaws of small falls of snow produced the greatest amount of percolation; that hollow draining did not diminish the perennial flow of rivers; that capillarity had only a negative influence; that the influence of a wet period on percolation rarely extended over more than one season, and was soon obliterated by a dry winter succeeding. The flow of springs and of rivers followed the increase and decrease of percolation more closely than the rainfall, except in the temporary effects which immediately succeeded on copious rains. Negative evaporation, or an increment of water without rain, occasionally, though seldom, occurred in the floating gauge; but it was of frequent occurrence in the sand gauge, from the low temperature acquired by the sand by radiation, when the gauge became a dew tank. We make note of these interesting conclusions because thoughtful study of them may result in a practical suggestion which shall redound to our agricultural success.

DUTY ON WOOL.—The Treasury Department has accepted the decision of the Attorney General that wool imported into the United States could not be subjected to a customs tax of over three cents per pound, provided that at the time of its purchase the price paid did not exceed 12 cents per pound, and that no additional tax of one cent per pound for any purpose ought to be levied after its arrival in this country.

Queries and Replies.

Angora Goats.

Editors Press:—Please allow a reader of your paper to make some enquiries relative to the Angora goat: What is the usual price of their wool, about how much they could be bought for per head, and where they can be found for sale, as well as the usual yield of wool per head.—G. W. Dean, Ferndale, Cal.

Our querist will find the information he asks and more of the same kind in the Rural Press of January 29th and April 8th. To reply directly, we may say that Buffum & Stockton, breeders, report their sales of unassorted mohair last year at 85 cents per pound. N. Gilmore reports 85 cents for high and pure bred wool, and an average of 52½ cents for the whole clip of pure bred and grades. The yield of wool per head, according to Mr. Gilmore, was as high as six and a half pounds for pure bred full grown goats, one to three pounds from grade kids and three to five pounds from grade yearlings. Buffum & Stockton report a yield as high as nine pounds from a wether, stating that their grade goats shear as high as the pure bloods. The price of the goats can be learned by addressing the breeders who advertise in our columns.

Vinegar From Wine.

Editors Press:—I would like to answer the question of some of your subscribers, "How to make vinegar of California white wine on a small scale," and would have done so long ago, but after working from half-past four o'clock in the morning until seven or eight at night, I don't often feel like writing. Our California white wines contain from 14 to 18 per cent. alcohol according to where they have been raised, the wines from the foothills being much heavier than those from the lower lands, especially if they have been irrigated. For vinegar you do not want more than eight or nine per cent. alcohol, so you have to add from three-fourths to one part of water; the best is rain water, or else take spring water and boil it for a while; pour the mixture into a barrel or pipe, but don't quite fill it up; bore a hole in each head near the bungstave to give a good circulation of air, and close the bunghole with a bottle, neck down; keep as near as you can at a temperature of from 80 to 86 degrees, and if your vinegar gets sufficiently sour, draw off and refill, and it will sour much quicker the next time. To create a quicker fermentation you can add some yeast of any kind, sour dough, or if you can get it, mother of vinegar, in filling the barrel the first time, afterward it is not necessary. —D. R., Los Angeles.

Inquiry for Land.

Editors Press:—Can you tell me the best place for farming on this coast, north of San Francisco or in Southern Oregon, where four to six families could go, with from $500 to $1,500 capital? Is there any good government land, in a healthy district, and how is the market?—P. Ficken, Alameda P. O., Cal.

We cannot distinguish between localities. We doubt not there are many places such as our querist desires. We print his letter with the request that any of our readers who reside in such a locality as he desires will write to him about its advantages.

The Dairy Association.

We continue to receive assurance from the dairymen that they belive an association will prove of great value to them. The correspondence which we receive shows plainly that there are many things connected with the sale of dairy produce in this State which need a thorough examination and possibly overhauling. This the dairyman can accomplish by comparing experience and exerting united strength toward right reforms. If the experience of all be such as that which has been described to us, there will be lively discussions of the commercial aspect of the industry when the society is formed.

We expect to send out during the coming week, blank forms for a call of a preliminary meeting to those who have written to us expressing a desire to take part in organizing an association. We trust they will gain all the names of their neighbors who are in sympathy with the idea. Where the blanks are returned to us we shall print the call with the names of the callers attached, and state the time and place so that all dairymen who wish may attend and take part in organizing the society.

The correspondence which we have printed from week to week on this subject shows so clearly the scope and usefulness of the contemplated association that we have little more to say at present on that point. Suffice it to remark that it will be to California dairymen what similar societies are in all the dairy States of the East—institutions for the promotion of the industry in every particular, from the best way to produce most milk, through all the items of manufacture to the securing of the full value of the product on the market. This is a field in which much valuable work needs to be done.

The Loss by Insects.—Prof. C. V. Riley, the State Entomologist of Missouri, and the President of the St. Louis Academy of Science, in a recent lecture in St. Louis on "Insects," said that the annual loss to farmers caused by insects averaged $100,000,000 a year; that the chinch bug alone during 1874 caused a loss of $30,000,000 in the Western States, of which $19,000,000 were lost in Missouri. Prof. Riley estimated the losses by locusts (grasshoppers) during the last three years at $50,000,000.

On File.—"Botanical Excursions," J. G. L.; "How to Exterminate Gophers," M. F. H.; "Silk Worm Trade at an End," F. G.; "Salicylic Acid for Foul Brood," J. P. B.; "The Golden Mean," M. E. T.; "Dixon Grange," M. M.; Hollister Grange," C. W. P.; "Santa Maria Grange," M. D. M.

Agriculture at the University.

We have received from Professor Hilgard a chart of the land devoted to agricultural experiments at the University. It is an interesting publication, and shows the divisions which the Professor has laid off for this season's experiments. He will experiment with different depths of plowing, and test side by side the result from manured and unmanured soils. The results from these experiments will be valuable. We can only regret that provision is not made for the University to extend its experimental work of this character. We are pleased to give below the Professor's own description of the experiments he has in course of trial:

Editors Press:—Some time ago one of your correspondents inquired what was being done at the University in the way of experiments in agriculture. I stated at the time, in a general way, what I proposed to do this year and had already inaugurated. I now transmit to you a plat of the experimental field as it stands. This explains itself; but for the benefit of your readers I give a description of it, with such comments as may be necessary.

The Experiment Field.

The area at present devoted to current experiments, exclusive of standard orchard, propagating grounds, botanical garden, etc., embraces about 12 acres in the northwest portion of the University grounds. In shape the tract approximates to a right-angled triangle, whose base is formed by a branch of Strawberry creek; while on the other two sides, north and west, it is bounded by streets. The slope toward the creek is steep and has been planted with shrubbery. The eastern angle of the triangle is occupied by the orchard, nurseries, greenhouses and stable. The general slope is gently to the westward, but undulates so as to form two ridges and shallow valleys running in that direction.

The higher portion of the ground has a shallow, pale tinted soil, underlaid by a heavy, pale yellow clay subsoil, very full of stones. Lower down on the slope the soil improves in every respect, becoming deeper and more tractable. In the lowest portions it may be termed a fair adobe soil, is dark tinted and in part not very well drained. The tract seems to represent pretty fairly the soil varieties usually found in similar locations at the foot of the western slope, from San Pablo to the neighborhood of Oakland. It is known to have been cropped for a number of years, in the usual manner, with wheat and oats. The latter cereal the upper portion of the tract seems to be unable to produce to any profitable extent at the present time. Last year it was sown to wheat and oats mixed half and half. A fair crop of hay was harvested, but it consisted almost exclusively of wheat.

Depth of Plowing.

In determining the scope of the experiments to be made, the question of cost had to be primarily considered, there being practically no funds available for the purpose. It was therefore determined to sow the larger portion of the ground to wheat for hay, as was done last season; at the same time to test the effects of plowing to three different depths, viz: 4, 8 and 12 inches. In order to be enabled to make allowance for the differences in the nature and quality of the soil of different portions of the tract, it was laid off into seven strips, each 78 links wide, running north and south; thus also rendering it easy to subdivide them into fractions of acres.

Of these seven strips, whose area varies, according to length, from a little over two to one and a half acres, the one highest upon the hill was reserved for manure experiments on small plots, presently to be described. The other six were plowed in sets of three, to the three depths already mentioned, and sown to wheat shortly before Christmas, at the rate of 90 pounds to the acre. It is intended, in harvesting, to measure off two plots of one-eighth acre each, in each of the strips, and weigh the hay; also, to let similar plots ripen their grain and straw, and determine the amounts produced off each.

As regards the results to be expected from this experiment, there are two points which may, for the present year, prevent the manifestation of a great difference in the average product of the several plots, to wit: 1, the entire tract was plowed to a depth of 10 or 12 inches last season. The tendency of this circumstance is, of course, to obliterate the differences between the effects of deep and shallow tillage, at least for this year; 2, the season has been usually good this year, so that the poorly cultivated fields are under less than their usual disadvantage as compared with those carefully tilled. It is in unfavorable seasons that the advantage of deep and thorough tillage is chiefly felt, as it then enables the crop to tide over the drouth that cuts short the shallow-rooted grain. It is well known that culture experiments, to be decisive, must be continued for a number of years, so as to ascertain the average result.

Manuring.

The seventh strip, of about one and a half acres, was laid off into plots of two by four rods, making each eight square rods—the customary size. Of the two outer tiers of plots, of eight each, five were then manured with the proper quantities of the following ingredients, representing some of the most important commercial manures: 1, lime; 2, plaster; 3, potashes; 4, ammonia sulphate; 5, Ward's superphosphate.

The remaining three plots were left alternately between, *unmanured*; moreover, the middle tier of plots, running the whole length, was also left unmanured, and divided into half by a lengthwise furrow; thus insuring the possession of a fair standard of comparison of the manured with the unmanured soil over the whole tract. All on the upper side of the middle furrow was then sown to wheat, on the lower side to oats; plots similarly manured being directly opposite each other, for convenience of comparison.

The grain on these plots is, of course, intended to be allowed to ripen, and to be ultimately weighed and compared as to the respective production of grain and straw.

The object of these experimeuts is, in the main, twofold. One is to ascertain the effect of manures rich in the several substances supplied, on the production of the two crops by this soil, or others of a similar nature. The other point in view is to obtain indications as to the general nature and adaptation of the soil to other crops.

SCENE IN TAHITI.

Shall We Use Manure?

I have had the prediction made to me, Messrs. Editors, that the agricultural public of California will think such experiments premature, and that nobody thinks of manuring for a long time to come. From what I myself have seen and read in your paper for a year past, I am inclined to doubt the correctness of this imputation upon the good sense of California farmers. That the large grain growers will not use manure now, is certain; but it is also true that in the older districts, where land is beginning to get "tired," but from its location is too valuable to be abandoned, there are many who would as willingly use manures as irrigation, to maintain the fertility of their soil, if they knew of a cheap plan. To those who have made investments of a permanent nature, in vineyards and orchards, the maintenance of fertility is of the most direct and obvious pecuniary importance. How to attain this object most cheaply, it is precisely the intent of these experiments to ascertain. Had I had larger means at my command, I should have varied and extended them in many ways, so as to render them more conclusive and in a shorter time.

There is another class of experiments that I hoped to inaugurate this season, but which the failure of the Legislature to make any appropriation has indefinitely postponed. I refer to the garden of general and economic botany, for which the ground was prepared during the past winter, and in which I proposed to test not only new varieties of crops now grown in California, but especially such untried ones as, from analogy of climate and soil, might be supposed to succeed here. I think the omission is greatly to be regretted, and question the wisdom of this kind of economy. Let it be remembered that it is not the University that is to blame, if that which should have been done in this direction remains undone.

Eugene W. Hilgard.

University of California, April 6th, 1876.

Those Fresh Grapes.

Last week we noted the receipt in this market of a consignment of grapes from Placerville, which had been preserved in saw-dust and came to the market in April with the fresh fragrance of October. The boxes contained about 40 pounds each and were sold at $4.50—a very handsome price. This shows how money can be made by a sharp and skillful move in production and marketing. We doubt not large amounts of such grapes could be sold in our cities every winter at a price which would well reward the effort to preserve them.

We find in the *Foothill Tidings* an account of the way Charles Barker succeeds in bringing out fresh grapes in April, which we believe is similar to the Placerville method: "The grapes are picked when thoroughly ripe by cutting a short piece of the wood to which the stem is attached out of the cane on which it grew. Care is taken not to handle any of the berries so as to destroy the bloom of the grapes or in any way bruise them. All imperfect or bruised grapes are then cut from the stem with a sharp and pointed pair of shears, and the bunches are ready for packing. The boxes are so shallow that two layers of bunches will fill them, and the material used in packing is old pine sawdust that has lain in a heap a number of years, and gone through a sweating or heating process, and lost all its aromatic or piney nature. A layer of sawdust of the description above stated, and well sun-dried, is then spread on the bottom of the box about an inch thick. On this is then laid a layer of bunches of grapes in such a manner that they touch or lay on each other as little as possible, and not allowing any to touch the side of the box. Then another layer of sawdust is covered over these about the same thickness, not allowing any of the grapes to protrude above the sawdust. The boxes are then covered and nailed up tight, and set away in a dry but cool place, and not opened until opened for use."

Successful Frost Fighting.

Last week we noted the French method of guarding against the fruit destroying frosts of springtime, and mentioned several cases of the application of the practice in this State. We have now information of success with the frost fighting fires in the foothills. The Amador *Ledger* says: "Wm. Avala, who owns perhaps the largest orchard around here, has this year adopted the plan of keeping fires burning on the windward side, the wind carrying the smoke and heated air over the trees, and preventing the formation of frost. On Monday morning we were favored with a nipping frost, which we are informed has inflicted serious damage upon the fruit. Avala that morning had 120 fires burning on his garden of 50 acres, and he reports his fruit uninjured. The cost of the experiment is incousiderable. It is rarely necessary to light up more than three or four times in a season, and the cuttings from the vines and trees are about sufficient for the purpose. He calculates that this simple precautionary measure will save him something like $1,000."

The importance of this safeguard against loss by frost is vital to our fruit interest in many parts of the State. The cost of saving the fruit cannot be compared with loss which is occasioned when it is ruined. It is of special value that the remedy is so cheap and so easily applied. We trust that our fruit-growing readers in exposed situations will save up their rubbish during the coming season and be prepared to give the frost a warm reception next spring. There is money in saving a crop just at a time when negligent husbandmen are crop-less.

Tahiti.

We give on this page a pretty scene from Tahiti. As the island is just now filling our markets with its fruits, it will be interesting to our fruit growers and consumers to catch a glimpse of the land whence the fruit comes. An enthusiastic French traveler, writing of the scenes which we illustrate, says:

"The appearance of the shores of Tahiti offers a grand variety of natural beauties. A happy combination of land and water, of precipices, of plains, of trees reflecting the thick foliage upon the limpid waters, of lofty mountains delineating their profiles on the clear sky, gives to the spectator delightful sensations. Thousands of trees produce excellent fruit, which only demand that a man put out his hand to gather them. The landscape is pleasing with the shade of orange and citron trees." We doubt not since the day when the writer visited the island the Tahitans have learned from their commerce that fruit is too valuable to hang where any one could put hand to it, but we have good evidence of the choice fertility of the soil and the bearing of the trees from the stores which ships are almost daily unloading at our wharves.

The two new crops, Chufa and Japan peas, are attracting great attention this spring, and there is much inquiry for seed. We would refer our readers in seach of it to the advertisement in another column.

Useful Information.

Fraud in Graham Flour.

Because Graham flour is recommended as a very healthy article of food, it should not be assumed that all Graham flour is equally good or even nutritious. The fact is Graham flour is rapidly coming to be as much an article of suspicion as ground coffee or spices or any other of the thousand and one adulterations that are daily practiced. The commonest form in which Graham flour is seen is that made from a medium or poor class wheat, and while not properly adulterated, it may be justly characterized as swindling of the meanest kind, for the reason that the product is largely used by dyspeptics and others in imperfect health. The miller who palms off on his customers Graham flour made from anything save the choicest of wheat is one of the meanest of all villains, and if he is not aware of it should be told so. Graham flour properly made is nearly as costly an article as bolted flour ground from the same wheat, and, therefore, when you are offered Graham at much less than the best bolted flour you are being victimized; it is either adulterated or it is made from inferior wheat. A common form of adulteration, and one that is practiced by at least one retail flour dealer in this city, is to take a barrel of flour costing about five dollars, add to it about 60 pounds of bran, 25 pounds middlings, and the same quantity of corn meal. The result of the mixture is 306 pounds of stuff costing about $6.45, or a fraction over two cents a pound; while Graham flour made from the best wheat cannot be sold now at less than three and a half to four cents a pound. And yet this vile stuff is being swallowed by people in search of better health, when they would do about as well on a diet of hot white biscuit. There is a fortune in store for the miller here in St. Louis who will make a strictly pure article of Graham flour from the best winter wheat, from which the outer husk of the bran shall have been removed before grinding. That man will establish a good reputation, make money, and confer a blessing upon thousands of his fellows. —*St. Louis Trade Journal.*

To Make Putty.—Pulverize the required quantity of whiting, which has been specially dried, and pass through a sieve of 45 holes to the square inch; mix the powder with as much raw linseed oil as will form it into a stiff paste, which should be well kneaded and left for a day or so; it must then be worked up, a small quantity at a time, so that it may be rendered quite smooth, and that balls of the dry whiting powder may not be imprisoned in different parts of the putty, for these would make their appearance when the putty was being used, and would, of course, injure the adhesiveness of the composition. Putty should be kept in an earthenware pan covered with a wet cloth. Putty which has become hardened may be made again fit for use by warming and beating it up, and kneading it whilst in that condition.

Hardened Paper.—Recent French journals speak of a method of rendering paper extremely hard and tenacious, by subjecting the pulp to the action of chloride of zinc. After it has been treated with the chloride it is submitted to a strong pressure, thereafter becoming as hard as wood and as tough as leather. The hardness varies according to the strength of the metallic solution. The material thus produced can be easily colored. It may be employed in covering floors with advantage, and may be made to replace leather in the manufacture of coarse shoes, and is a good material for whip handles, the mounting of saws, buttons, combs, and other articles of various descriptions. An excellent use for it is in large sheets for roofing. Paper already manufactured acquires the same consistency when plunged, unsized, in a solution of chloride.

Alcohol as a Food Preserver.—A Swiss professor of chemistry has patented a new process for the preservation of meat, fish, vegetables, butter and cream, the novelty of which consists in the addition of alcohol to the usual solution of salt. The only probable objection to the method is the hardening of the fiber of the meat. One advantage would be the combining of meat and drink, as is done by the London water companies, and the mixture might suit weak-backed teetotallers. For preserving butter, the professor mixes 2 lbs. alcohol of 90 degs. strength, with every 100 lbs. of dairy produce.

A simple way of cutting glass is to crack it with a very fine, needle-like gas flame. Start the crack with a file, and then apply the flame, which may be produced through a minute perforation in a glass connected with some rubber piping so as to allow of the flame being conveniently carried from point to point. The crack will run before the flame in any desired direction.

A simple brown dye for cloth is made of japonica, half a pound; bichromate of potash, two ounces; alum, one ounce, and water, five gallons. Put the ingredients in a vessel, dissolve, immerse the goods, previously wet with warm water, and simmer for three hours.

Wax flowers, if left out in the drizzling rain, will be thoroughly cleaned in a short time.

McCormick's Mowers and Reapers.

☞FARMERS wanting to purchase Mowers or Reapers this season will serve their own interest by examining the McCormick Machines before purchasing. Every McCormick Machine sold is guaranteed to give satisfaction to the purchaser, if correctly set up, or purchase money returned.

McCormicks' character as the inventor of the Reaping Machine is national. Their experience in the manufacture of Mowing and Reaping Machines, and improving them, extends over the past thirty years. Their facilities for manufacturing are the most complete, and the capital invested in the business the largest of any manufacturers in their line in the world. This of itself is a safe guarantee to those who patronize them that they will be well treated.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.); Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H. GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

R. S. THOMPSON,

IMPORTER AND BREEDER OF

PURE BERKSHIRE SWINE,

NAPA, CAL.

"ELAINE!"

THE FAMILY SAFEGUARD OIL.

CANNOT BE EXPLODED.

IS BRILLIANT, OF PLEASANT ODOR,

COLORLESS, ECONOMICAL AND

THE PERFECTION OF AN ILLUMINATOR.

Those buying "ELAINE" will use no other Oil.

FOR SALE BY ALL LEADING RETAILERS & JOBBERS.

Geo. M. Grant & Co., Agents, San Francisco.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't | I. G. GARDNER, V. Pres't
G. P. KELLOGG, Treasurer | A. W. THOMPSON, Att'y
I. C. STEELE.....San Mateo | CHAS. LAIRD, ...Salinas
A. WOLF.....Stockton | A. D. LOGAN, ...Colusa
W. H. BAXTER.....S. F. | G. W. COLBY .....Butte Co
J. C. MERRYFIELD, Dixon | C. J. CRESSEY, ...Oakland
A. B. NALLY.....Santa Rosa | E. W. STEELE, S. L. Obispo

FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN.....$3,026,378.00
TOTAL PREMIUMS..... 63,306.49
LOSSES PAID..... 646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

Successor to A. Pfister & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors.—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

NOTICE TO THRESHERS.

WANTED—TO EXCHANGE,

A Rice's Straw Burning Engine for a Wood Burner.

For further particulars address J. W. RILEY, care of Dewey & Co., 224 Sansome St., San Francisco.

Bound Volumes of the Mining and Scientific Press from Jan. 1st, 1864, are for sale at this office at $4 per volume, two volumes a year. Unbound at $3 per volume.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

Ladies' Department.—Ladies will be admitted for instruction in all the Departments of the College.

Telegraphic Department.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,

19 New Montgomery Street, S. F.

☞Grand Hotel Building.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

No Agents are authorized to receive subscriptions for this paper at less than our advertised rates.

FRANK BROS. & CO.,

349 Market Street, - - - - - - San Francisco, Cal.

WALTER A. WOOD'S

IMPROVED IRON MOWER

23,507 were made and sold last year. Their immense sale and unprecedented success IN PRACTICAL FIELD WORK, fully establishes their superiority over all other machines for SIMPLICITY and PERFECTION of CONSTRUCTION.

WALTER A. WOOD'S

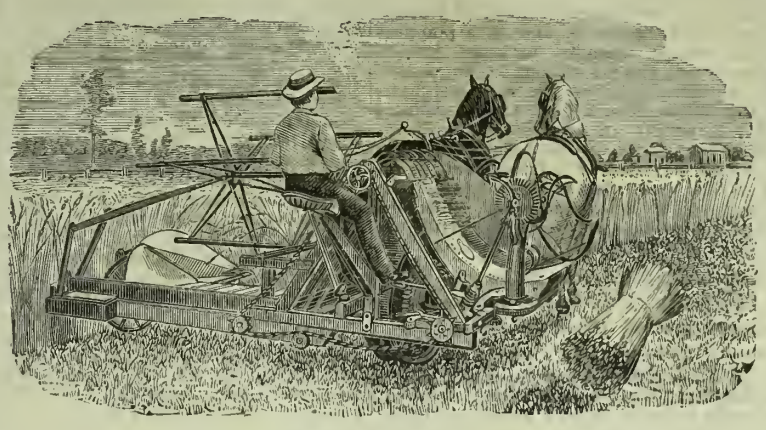
Chain Rake and Sweep Rake Reaper.

WALTER A. WOOD'S

Harvester and Self-Binder.

The Greatest Labor-Saving Machine of the Age.

COATES' LOCK LEVER SULKY RAKE.



WALTER A. WOOD'S HARVESTER AND SELF-BINDER.

THE CELEBRATED

La Belle Farm and Freight Wagon.

SWEEPSTAKES THRESHERS,

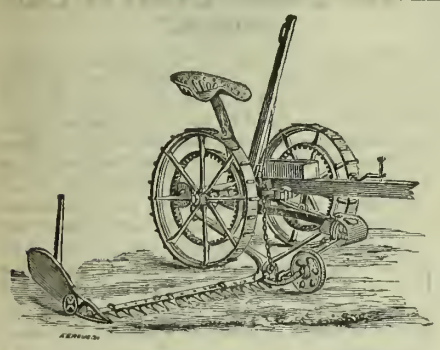
SPECIALLY IMPROVED FOR THE PACIFIC COAST.

HAINES' HEADER,

WITH ALL THE LATEST IMPROVEMENTS.

Chaplin & Tiffin's Revolving Rakes,

Warranted the Best in the Market.



WM. ANSON WOOD'S EAGLE MOWER.

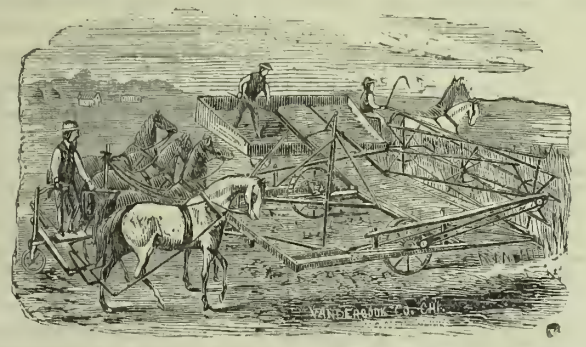
RUSSELL PEERLESS MOWER.

WM. ANSON WOOD'S EAGLE MOWER,

Now acknowledged to be the Leading Mower on the Coast—From its durability and strength, being constructed of iron and steel, and from the rapidity of its motion, cutting all kinds of grass. It will work on uneven ground.

With Adjustible Reel

Iron Wheel.



ALSO,

HEADER DRAPERS.

Beware of Imitations.

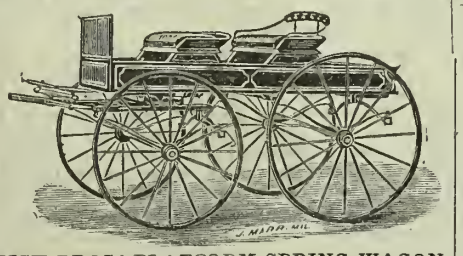
HAINES' SINGLE AND DOUBLE GEAR HEADERS.

CASE'S SINGLE GEAR IRON WHEEL HEADER,

WHICH WE WARRANT THE BEST IN THE MARKET.

A Full Supply of Extras for the above Machines Constantly on Hand.

FISH BROS.' FARM WAGON.



FISH BROS.' PLATFORM SPRING WAGON

FISH BROS. & CO'S PACIFIC FARM, SPRING AND HEADER WAGONS.

The best painted, the best proportioned, the best ironed, and the Best Wagon on Wheels. We can sell a BETTER SPRING WAGON FOR LESS MONEY than any firm in California, comprising Two Spring "Specie Basis" and Platform Spring Delivery Wagons; Three and Four Spring Express Wagons, both with plain and Sarven's Best Patent Wheels.

LINFORTH, KELLOGG & CO., - - 3 and 5 Front street, S. F

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Cal

FOR SALE.

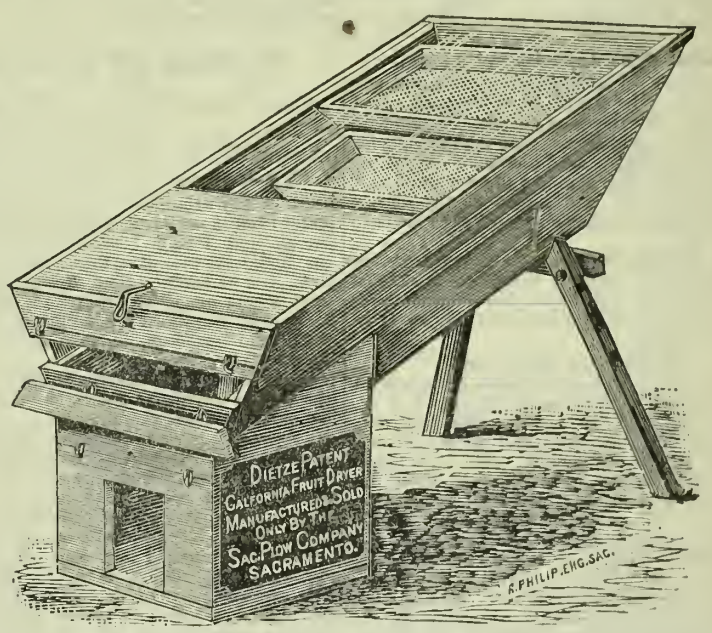
NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

CALIFORNIA FRUIT DRYER.

DIETZ PATENT.



Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple in construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,

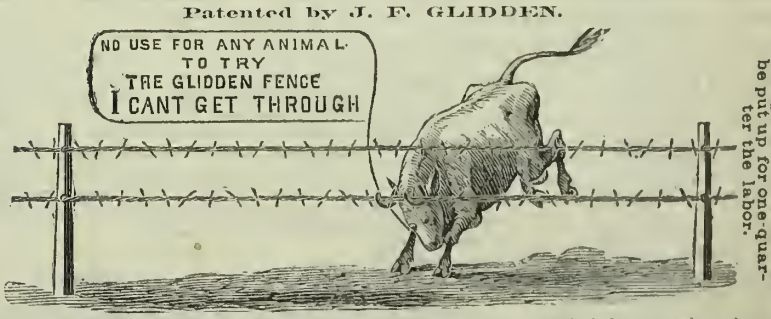
Sacramento City, Cal.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 45 Cal. Market S.F

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

Alameda Foundry—San Jose, Cal.

Watkins & Scott, Proprietors.

I had the pleasure this morning, under the guidance of Mr. Watkins, of looking through the workshops of this establishment, and was surprised to see what extensive additions and improvements had been made during the last year in all the departments of their business. In the first place their location is a pleasant and good one, just out of the thick of the city, on the south side of the beautiful Alameda avenue, that great thoroughfare between the cities of San Jose and Santa Clara, through which nearly all the business and travel to San Jose from the west must pass.

Their main building consists of a substantial frame, two stories high, and presenting a front on the avenue of 100 feet, and is 32 feet in width. Back of this building and joining it on the west side of the lot is their foundry works, occupying a space of 70x40 feet, and on the east side of the lot and joining the main building is a wood shop 100 feet long by 20 feet in width.

The main rooms up stairs are used for manufacturing the wood work of the various machines and tools which they make. The whole establishment seems well arranged for business, and their machinery is all of the most approved styles, fully up to the improvements of the times. They have in their employ from 20 to 30 skilled workmen in the different departments of their business.

They make a specialty of the manufacture of the

McCall Mammoth Grader and Ditcher,

Which has been so highly and unanimously recommended by the Board of Supervisors of this county as "the most complete, economical and perfect working machine ever introduced into this county," an illustrative engraving of which, together with a full description, advertisement, etc., will appear in the RURAL PRESS as soon as arrangements can be made to do so.

They also manufacture gang plows, portable and stationary engines, threshing machines, separators, and the great fuel saving steam portable pumping engines, and all kinds of mill work, etc.

Watkins' Slip Shear Plow.

Mr. James T. Watkins certainly possesses an inventive and mechanical genius of a high order, judging from the number of useful inventions and improvements which he has already brought before the public. His slip shear plow, if that is the right name, is one of the most simple and substantial arrangements for attaching a share to a plow imaginable. I shall attempt no description, for this ingenious improvement will also very soon be placed before the public, fully illustrated in the RURAL PRESS. A farmer with this improvement can remove a share from its place on his plow and fix another on without bolt or screw, in about the same length of time that it would take for him to lift the hat from off his head and put it on again. This invention of Mr. Watkins' is bound to make a sensation in the world of plows—look out for it. G. W. M.

Santa Clara, Cal., April 17th.

A New Hay Fork.

EDITORS PRESS:—I take pleasure in calling the attention of farmers and stock men to the advertisement in another column of the RURAL PRESS of "Taber's improved hay fork." From what I know of the standing of the gentleman engaged in the manufacture and sale of this fork, and from what I have heard during the last season in this neighborhood of its merits as a time, money and labor saving machine, I have no hesitation in asking farmers and others to examine its merits before determining what they will buy. And this I do most freely, as I have no interest in the matter whatever, except, it may be, I have been somewhat familiar with its history, its rise and progress from its first conception in the fertile brain of its inventor, to what seems to me now to be the perfected machine.

Mr. Orrin Taber handled over 700 tons of hay last year in this neighborhood with one of these forks, and every one whom I have heard speak of its working merits, have expressed themselves in the most flattering terms as to its being a very useful and labor saving tool. Besides pitching hay and grain, it is also so well adapted to handling and stacking even the shortest straw, that no farmer can well afford to do without one. It has been thoroughly tested in this respect. I am informed by Mr. Taber, the inventor, that a descriptive illustration of this fork will appear in the PACIFIC RURAL PRESS just as soon as he can make the necessary arrangements to do so. G. W. M.

Santa Clara, Cal., April 15th, 1875.

SARGENT'S bill granting the site for the Lick astronomical observatory, on Mount Hamilton, was reported favorably by Booth, from the Senate Public Lands Committee.

THE loss of the *Victoria*, from Shields for San Francisco, is now proved beyond a doubt. There were lost, besides Captain Jones, 25 hands and the pilot.

THE President has vetoed the bill which proposed to reduce the salary of his successor.

New Books.

"HOW TO WRITE LETTERS" is a new book by J. Willis Westlake, A. M.; Sower, Potts & Co., publishers. "How to Write Letters" has a three-fold purpose; first, to serve as a text book for the use of schools—auxiliary to the study of language and literature, and to a practical business course; secondly, to assist private learners—those who are anxious to improve in letter writing, but are unable or unwilling to avail themselves of the help of a living teacher; thirdly, to supply an authoritative work to which persons of all classes, occupations and professions may resort for information in regard to the many perplexing questions concerning epistolary art and propriety, which are constantly occurring to every one in the exigencies of life. For sale by A. Roman & Co.

"LITERATURE FOR LITTLE FOLKS," by Elizabeth Lloyd. This little volume is filled with sacred precepts and lessons in beauty, truth, refinement and culture, made so interesting and enticing that children and teachers will hail it with delight. Children in their second reader, whose time becomes tedious when not pleasantly occupied, will find this to just fit in and supply their needs. It contains the gems of sacred and child's literature, easy words and sentence lessons in composition, and object lessons from pictures. It instils literary taste, the use of correct and refined language, knowledge of authorship and habits of memory, observation and quick perception. The plan of the work is original and delightful. For sale by A. Roman & Co.

The Orange and Lemon Pest.

Under this head the Los Angeles *Express* has an interesting and valuable article, describing a remedy for the insect which infests orange and lemon trees in that section. We have not heard of any complaints of the ravages of this insect from those engaged in the cultivation of orange and lemon trees in other counties, but should the pest exist there, the information given will be useful. The *Express* says: "A great inconvenience and loss to the large number of our people who have been cultivating orange and lemon groves has been that frequently, after the utmost care, as they supposed, had been bestowed upon their trees, the plants have wilted and died. Mr. Gale yesterday gave us some valuable information as to the cause of this early decadence of apparently healthy trees. It had been ascribed to the copious irrigation usually practised in the cultivation of the orange and lemon in Los Angeles. This theory proves to have been a mistake. Mr. Gale conducted a number of experiments which satisfied him that an insect was the cause of the decay, and he applied a strong microscope to portions of the bark. The result proved that his idea is the correct one, and we have ourselves seen the insect in full and vicious life on portions of the bark brought by Mr. Gale for our inspection. This insect attacks the tree just under the ground and penetrates, if unmolested, to a depth of six inches, in time completely girdling the trunk and of course killing the plant. Mr. Gale set about trying a number of experiments on the pest in Mr. Montague's orchard, and a mixture of carbolic acid and other ingredients quickly and completely exterminated the insect. The trees treated with this preparation soon completely recover their health, and the damage, if not irreparable before its application, is repaired. It is of great importance to the owners of groves that this fact should be known, and a consultation with Mr. Gale will be profitable to those who have seen their trees wilt without any perceptible cause, and who have ascribed to irrigation and gophers a mischief worked by a creature almost infinitesimal in size at first, but which soon grows to a length of almost an eighth of an inch. There is said to be no evil in nature without its remedy, and Mr. Gale seems to have discovered an effectual one for this destructive insect."

THE WEEVIL.—As few people have more than a general idea of the little insect that is so destructive to our wheat, when it becomes infested with them, we quote the following description of the wheat weevil: There are thousands of species of the weevil, some of which live on filberts and other nuts; others on acorns, peas, palm trees, pine trees and plum trees. The palm tree weevils are two to three inches long and are esteemed a great delicacy among the natives of the West Indies, and a variety living upon the sugar cane, is boiled, roasted or broiled on wooden spits and eaten with dried and powdered bread. The grain weevil of Europe—*Calandra granaria*—is one of the most mischievous of all the various species; it is a slender red beetle, about one-eighth of an inch long; the eggs are deposited in the wheat after it is stored, and the grubs, as soon as hatched, burrow in, each occupying a single grain and eating it so as to leave only the husks in a little heap; the destruction is usually not discovered until it is too late to remedy it. Drying the grain in kilns seems to be the only method of destroying these insects. This is the same species that infests California wheat. Beware of the weevil.—*Stockton Independent.*

THERE has been more fighting between the Egyptians and Abyssinians, and it is said the Egyptian army is in great difficulty.

California Hops.

The greatest drawback which has attended hop-growing in our state has ever been, and will be, the high price of poles. In fact this one item alone is almost equal to all the other items of expense attending the production of hops. The first experiments made with hops were with long poles from 8 to 15 feet in length, cut from young timber or from willow hedges. But as the industry grew and spread over the State, it was found that a better and more serviceable hop pole could be made from redwood, though it was not practicable to cut them more than 8 feet long. Since their introduction a plan has been tried and found to work well, of connecting the tops of these stakes together by means of a strong cord. This answers two beneficial purposes—it gives a greater length of pole for the vine to run on, for as soon as it reaches the top of the stake it twines along these connecting cords, and it renders the stakes proof against wind storms, which not unfrequently demolish whole fields. There has never been any other crop, the soil being suitable, which has so quickly enriched the husbandman as the hop crop. Before the value of California hops became known and acknowledged abroad, there was but a limited demand at home; but now that the demand is only limited by the world's market, we may say there need be no hesitancy in putting out all the ground that can successfully be cultivated. Our farmers are able to produce hops as cheaply as any of the other States, as the yield per acre is much larger.

California hops have even found their way into European markets, and the verdict of English brewers is very complimentary to the hops grown here. The first attempts to make ale from California hops was a failure; but after repeated experiments as to the peculiar properties contained in them, often differing entirely from the productions of Eastern and European hops, they have been found superior to any other. There are years, it is true, when the price of hops has been so low as to hardly pay expenses, but this has only occurred once or twice during the history of hop-raising, and farmers have no cause to feel disheartened.—*Chronicle.*

General News Items.

THE Legislative commission is now investigating the Chinese question in this city.

A WASHINGTON dispatch says Grant has lost faith in Babcock, and has requested Bristow to turn out of office 12 clerks appointed at Babcock's request.

CHARGES are still being made as to the conduct of matters in the Naval Department under the control of Secretary Robeson. Mare island is mentioned in this connection.

NEAR Parker's Landing, Pennsylvania, Thursday, a 12,000-barrel tank of oil was struck with lightning and set on fire. Other tanks were also set on fire by its bursting.

THE chief clerk of the General Land Office, L. K. Lippincott, Grace Greenwood's husband, has been summarily dismissed lately by Secretary Chandler for defrauding the Government, appropriated about $25,000, and has fled.

THE Emperor of Brazil and some of his suite has left New York for San Francisco, via Erie and Chicago line, taking one of its palaces through. He will remain in San Francisco about five days.

THERE has been a heavy rain north and west of Chicago. On Wednesday night at McGregor, Iowa, the cellars and lower stories of houses were inundated, and $650,000 worth of property was destroyed in less than two hours. There were inundations and damage elsewhere. At one place there was a house struck by lightning and one person killed.

THE impeachment case of Belknap came up Monday in the Senate chamber. There was a large attendance of ladies and gentlemen and all parties concerned were present. The preliminary steps were taken and the articles were read. Carpenter, Blair and Black appeared for Belknap and filed a plea disputing the jurisdiction of the Senate to try Belknap in that mode, as he was not an officer of the United States at the time the articles were found, that he has not been since and is not now an officer of the United States, but a private citizen. The prosecution asked that time be allowed them to make reply until Wednesday, and it was so ordered by the Senate.

BUDDED OR SEEDLING STOCK.—Some time since there was a query in our columns concerning the superiority of budded or seedling orange and lemon trees. Mr. Heimann, a well known Anaheim grower, writes as follows: "As to those 'budded' orange and lemon trees, we would say to you that it is only an advertising dodge that has been practiced very extensively of late. Our oldest and most experienced orchard men, though, do not think anything of the budded trees. Neither Wilson, nor Rose, White or others of the most prominent orange growers, raise the budded trees. They say that the budded tree will probably produce a dozen or two oranges a year or two sooner than the seedling, but that the seedling will outgrow, outlive and outbear the budded tree by far, and make, ninety-nine trees out of one hundred, just as good fruit. They say it will not pay, and even in the course of years injure the orchard for the above given reasons, and the experience we have had thus far confirms their theory."

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., April 18th, 1876.

FOR WEEK ENDING APRIL 4TH, 1876.*

CAR COUPLINGS.—Henry H. Morgan and Albert Gerry, Oakland, Cal.

ADDING PENCILS.—Marshall M. Smith and Fletcher W. Potts, Verdi, Nev.

WREST PLANK BRIDGE PLATE FOR PIANO-FORTES.—Jacob Zech, S. F., Cal.

DESIGNS.

CAMEO CARD MOUNT.—Nathaniel Weston, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

"The Public Lands of California."

The demand for this new work is steadily increasing, and the more widely that its merits are becoming known, its usefulness to everyone is becoming more fully demonstrated. The map of California and Nevada alone is worth more than fifty cents, the price asked for the work, and the fact that a glance at its pages shows the leading products, population, etc., of each county in the State, besides a list of the surveys of United States Land, subject to the homestead and pre-emption laws of Congress; a correct copy of the laws of Congress in regard to locating and holding this land, etc., renders it of inestimable value. Orders sent to Dewey & Co., enclosing fifty cents, will meet with prompt attention, as it will be forwarded immediately post paid.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

OUR POULTRY DEPARTMENT.—We are in receipt of frequent letters expressing admiration of our Poultry Department. Mrs. Stoddard writes: "I look for Mr. Eyre's articles the first thing." Mrs. Pike says: "They are just what we want, common sense, plain and to the point." A. P. Smith writes: "I shall not take the *Poultry Bulletin* another year, as I get more information in regard to management of poultry from Mr. Eyre's writings in the RURAL PRESS, which I shall keep for reference." We are glad to know that our readers find our Poultry Department so valuable.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

BEST ON THE COAST.—In copying an article the *Farmers' Journal* says: We found the enclosed item in the PACIFIC RURAL PRESS, the best paper of its class on this coast. Mr. M. Eyre, Jr., is the poultry editor.

SEVERAL FIRST-CLASS SEWING MACHINES can be had at favorable rates to the purchasers, if ordered soon, from the Grangers' Business Association, N. E. Cor. Davis and California streets, S. F.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

SEWING MACHINES.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 19th, 1876.

The general trade for the week has been without notable features. The declins in the cabls rate for Wheat created almost stagnation in the trade, and succeeded in forcing lower prices in this market. On Tuesday the cabls recovered itself by one and two points, but as yet there has been no improvement in our market. The situation to-day, Wednesday, is marked by inaction and no trading disposition.

The course of the Liverpool quotations for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	Cal. Average.			Club.		
Thursday	9s	8d@10s	—	10s	—@10s	5d
Friday	9s	8d@10s	—	10s	—@10s	6d
Saturday	9s	8d@10s	—	10s	—@10s	6d
Monday	9s	8d@10s	—	10s	—@10s	6d
Tuesday	9s	9d@10s	1d	10s	3d@10s	8d
Wednesday	9s	9d@10s	1d	10s	3d@10s	8d

To-day's cable quotations to the Produce Exchange compare with same dats in former years as follows:

	Avsrags.			Club.		
1874	12s	9d@13s	—	13s	—@13s	4d
1875	9s	—@ 9s	4d	9s	5d@ 9s	10d
1876	9s	9d@10s	1d	10s	3d@10s	8d

The Situation Abroad.

Ths reports from ths English centers this wesk ars favorabls to the coming crop. The telegraphed revisw of the *Mark Lane Express*, for April 17th, is as follows:

"Great progress has been made in all farm labors; spring plowing, sowing and harrowing proceeding satisfactorily. Ths quantity of Wheat sown, however, is below ths average. Farmers prefer to uss their land for other purposes, present prices not enabling ths m to compete with the cheap lahor of America, Russia and India. Trade during the past wesk has undergons no marked alteration. Sales have been strictly of a consumptive character. All qualities except fins white sorts realized lss money. The results of stock-taking at the beginning of the month show a very small diminution; London showiug about 450,000 quarters against 560,000 quarters at the snd of 1875. For the quarter of ths ysar now commenced, a large consumptiou of foreign Wheat may be fairly anticipated. The granaries in London are filled with barley and oats, hut malze is scarce, ths present quantity being only about 15,000 quarters, which show how low prices have incrsased ths demand."

Freights and Charters.

There has been nothing done in charters for Wheat during tbe wsek. The list of availabls vessels is increasing. The disengaged tonnage now in port embraces 22 vessels, aggregating 21 153 tons. Ws ars informed that ths ship *David Crockett* has been offered 50s to load Wheat in Juns for Liverpool, but the owners have concluded to hold her over for future prospects, and shs will go into the stream for the present.

A Feature in the Bag Trade.

Until recently it has been the practice for English vessels engaged in the trans-Atlantic Grain trade to taks their cargoes of Wheat and Corn in tulk, but unmsrous instances of disasters at sea resulting from the shifting of cargo or stoppage of pumps has provsd that ths systsm was a dangerous one. The subject, we bslisvs, was first agitatsd in England by Mr. Plimsoll, the great rsformer, and resulted in laws being passed that thsrsafter English vessels wsre required to taks a por'tion of their grain cargoes in bags and not iu bulk. It is statsd that the enforcement of the new law has occasioned a grsat increass in ths demand for Sacks, and a surprising activity in the Jute manufacture in India. In 1872 thers wers 1,160 looms at work in Bengal, turning out some 2,211,200 bags per month. It is estimated that at the close of 1875 tbs number of availabls looms was not less than 3,590, giving a producing powsr of 5,730,350 bags per mouth. Ths calculation, carried up to ths end of Juns next, by which date it is sxpscted that many mills now projected and in process of construction will be ready, places the number of looms which will tbsn bs available at 4,500, with a producing power of 8,199,000 bags per month. Calcutta advices of March 3d report that thers had been a good dsmand for Gunny Bags for San Francisco, though at tbs closs ths demand appeared satisfied and prices were weaker. Powsr-loom Bags had kept firm, the mills bsing full of orders. Further business bad been done in Hessian Grain Sacks, 22x35, at former prices, and thsre wsre very few of these Bags availabls until after May.

Domestic Produce.

The following table shows the bay rsceipts of Domestic Produce for the week, ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Mar. 29	Week April 5.	Week Apr. 12.	Week Apr. 19,
Flour, quarter sacks	29,244	56,790	32,220	25,134
Wheat, centals	57,717	63,559	27,009	89,159
Barley, centals	17,731	8,756	11,872	8,724
Beans, sacks	1,048	521	1,091	1,138
Corn, csntals	1,135	54	1,497	541
Oats, csntals	1,139	2,197	4,515	1,171
Potatoes, sacks	158	7,351	10,500	5,862
Onions, sacks	413	744	1,414	153
Wool, bales	1,442	2,391	3,769	4,289
Hops, bales	50	87	149	15
Hay, bales	3,401	1,012	1,292	1,257

The Wheat Outlook in Oregon.

The Portland *Oregonian*, in reviewing the Wheat outlook, says:

"The reports that reach us from the interior of the State all nearly agree as to the condition of the growing Wheat crop. Generally the fall sown promises well; in Eastern Oregon t ere is a larger acreage than the average, and it looks fine for a heavy yield. In this and the Umpqua valley the acreage is smaller than before for three years, though there may be a very material area added in spring Wheat yet if the first half of April should prove propitious. With a few exceptions the growing plants in the regions last named promise an average yield. There has been no trouble this season on account of 'freezing out.' The surplus in California, should nothing generally disastrous to ths crop occur, will probably reach the enormous quantity of 800,000 tons. So that it will bs seen that ths comparatively small amount of 75,000 or even 100,000 tons which Orego. will have, will maks a very limited showing in the Wheat business of the coast next year, and the influence of our crop in tbe market will be proportionately curtailed. Circumstances yet to happen may make prices good in this market after harvest, hnt the present indications rather point to ths revsrse as more likely to be the case."

Bags—Quotations for hags are unchanged from last wsek. We hear of a sale of 50,000 English hand-sewed at 12½c, four months' time. Tbe price on spot is 12@12¼c.

Barley—Barley is quotable at a slight decline, and is in moderate demand. During the week an offer was mads on 'Change of 15,000 to 20,000 sks new, to be cut in May and delivered here from Hill's Ferry at $1.10 per ctl. We note sales: 1,066 sks Bay Fsed at $1.27½ per ctl, half silver; 200 sks Coast Fsed at $1.25 per ctl, half silvsr; 1,000 sks good Bay Brewing, $1.32½; 500 sks good Coast Feed at $1.17½, gold; 1,055 do Bay Feed, $1.27½, silver; 200 sks poor Chevallsr, $1.25; 100 do Coast Fssd, $1.25, half silver; 1,300 do Bay Brewing' $1.35; 300 sks good Coast Fsed, $1.25; 125 do Bay do, $1.25; 500 sks fair Coast Feed, $1.17½; 1,320 do good Bay do, $1.27½ per ctl.

Beans—Beans are generally unchanged. Bayo Beans are sxceedingly scarce, and almost out of the market. In view of the pinch, sales have been made as high as $5 per ctl. We nots a sals of 125 sks poor Pink at $1.65 per ctl.

Dairy Produce—Fresh Roll Butter is firmsr, although prices ars unchanged. Eggs have receded a point.

Corn—Corn is in abundant supply and dull. Ws note salss: 600 sacks fair Yellow at $1.16¼; 200 do good do, $1.22½; 100 do small do, $1.35; 400 sacks choics Yellow at $1.20; 1,400 do good do, $1.17½; 200 do fair do, $1.15; 100 do small Yellow, $1 35; 1,800 sks damaged Yellow at $1.12½; 100 sks small Round, $1.35 ₱ ctl; 200 do Dent, $1.22½; 500 do fair large Yellow, $1.16¼, half silver; 225 do fair large Yellow, $1.20, half silver; 250 do good do, $1.25 ₱ ctl, half silver; 150 sks large Yellow at $1.15 ₱ ctl.

Fruit—Ths Fruit market continues to show life in the way of importations. Ths importing of Messina Oranges from New York has not proved a financial success in view of the distances traveled and the high cost of transportation. The venturs, we presume, was made in view of the supply from Los Angeles running short. Two cargoes have already been recsived from Tahiti, and additional supplies are on ths way here. These can be placed on the market at rsasonable ratcs. During ths wsck a shipment of Sicily Oranges, the first ever brought to this market, has been received from Nsw York. Tbe fruit is of the sams variety as ths Domestic, though not equal to it in quality. It looks well, however, and sells at about the same prics. Apples are scarcer than evsr. Ths last lot from Oregon brought from $3 to $4.55, gold, by auction, on the wharf. The market is well supplied with ssmi-tropical and tropical Fruits, including California, Tahiti, Mexicau and Italian Oranges, California and Mexican Limes, California and Italian Lemons, Pineapples, Bananas and Mangoes from Mexico, Bananas from ths Hawaiian islands and Cocoanuts from ths Navigator and Society islands. Strawberries are coming in mors abundantly. 100 cases were received in one day, the greater part of excellent quality; the street peddlers took the advantage and made their first appearancs this ssason. Prices rangs from 12½@20c ₱ lb.

Hay—Former prices for Hay are maiutained. We note sales: 45 tons poor Stock, $13; 20 do choice Wheat, $19 ₱ ton; 45 tons choice Wheat and Oats at $18.50; 50 tons Oat, slightly stained, $14.50; 25 tons fair Oat and Wheat, $15.50. A cargo of Wheat and Oat, mixsd, sold for $18.50; 17 tons good wild Oat at $16.50; 43 do good Stock, $14; 95 tons good Voluntssr Wheat and Oat, $15. The range of the market remains at $13@19 per ton.

Hops—Hops ars dull and slow of salo. Quotations are 10@15c. There havs been small sales at 9c. The New York trade, for the week e ding April 7th, is reviswed by Emmstt Wells as follows:

"The reduction of 2c in the price last week has led to considerably more businss, both exporters and consumers having bought more freely, and, with reduced stocks and light rsceipts, a cent more has been paid this week for all descriptions of the last growth, excepting Californians. Ahout 12,000 hales will cover ths stock of nsw Hops on hand to-day in this city; with a continued lively shipping demand, this would be considered a small supply. Tbe larger brewers are now believed to be generally well supplied for tbe season, and only a small demand may be expected from them from this time out. Exporters will continue to take all tbe good Hops at present prices, and only in the event of an unfavorable appearance of the roots in tbe English plantations later on, need we look for a better market hsre."

Oats—Oats have sold at formsr prices. The Oregon steamer brought in a good supply, and thero is no scarcity at present. We note sales: 500 sks good Ors_gon, $2.50; 100 do Coast Fesd, $2.25; 50 do good California, $2.50; 270 sks choice Oregon Surprise, $3; 800 do fair Coast Fesd, $2.40; 150 sks fair Coast, $2.25; 100 do good do, $2.52½, gold; 140 do choice, for milling, $3.05, silver; 1,000 sks No. 1 Coast Feed, $2.40; 300 do choice Milling, $3; 100 sks Coast, $2.25 per ctl, half silver; 500 do Oregon, $2.50 per ctl.

Onions—Onions are weaker and saleable at lower prices. We note sales: 25 sks Bay, $2.50; 100 do Union City, $2.50@2.75; 150 sks good to choice Union City, $2.50@2.75; 50 sks good Union City, $3; 54 boxes good Puget Sound, $2.75; 50 do Stockton, $2.50 per ctl.

Potatoes—Potatocs have been received in good supply from the Northern coast and Salt Lake, but the demand holds prices. We note sales: 200 sks extra choice Tomates, $2.05@2.10; 120 do good do, $195; 100 do choice Petalumas, $2; 150 sks good Salt Lake, $2.15; 100 do choico Tomalos, $2.10; 100 sks good Humboldts, $2@2.12½—half silver; 250 sks fair Sarta Rose, $2; 300 sks Salt Lnke, $2.20, half silver; 1,000 sks choice Humboldts, $2@2.12½ per ctl.

Provisions—The Provision trade is very dull. Beef, Mutton and Lamb are all lower.

Poultry and Game—Chickens ars cheaper and Turkeys are dearer. With tbsse exceptions, prices of Poultry and Game are unchanged.

Vegetables—There is a marked reduction in Asparagus, Rhubard and Green Peas. Asparagus is in excess and is being used by canners at the reduced prics' The finest quality is offered at 75c@$1.25 per box.

Wheat—Ths recent fall in ths cable forced a rsduction in quotations, and at this date improvement is not yet fslt. To meet present prices we reduce our quotations. The outlook is, howsvsr, toward a rsaction' We note sales: 1,000 sks good Shipping, $1.80; 250 sks good Milling, $1.85; 1,360 do Superfins, $1.65; 1,000 do do, $1.57½; 1,350 do fair Milling, $1.75; 250 do do, $1.85; 500 sks good Milling, $1.90; 2,360 ctls Shipping, in two lots, $1.75@1.80; 1,000 sks good Milling at $1.92½.

Wool—The Wool market is wsaker that last wsek. It is difficult to maks sales within one cent of former prices. We note sales of 350,000 pounds at a range of 12½@18c; 60,000 pounds, 15@17c; 8,000 pounds, long, 17 @19c; 8,000 pounds, short, 14c; 6,000 pounds, short Northern, 16@17 cents. Ths Eastern markets ars in no better humor. Ths telegraphsd reports are as follows:

NEW YORK, April 15th: Ths Wool market continues sxceedingly quiet for all descriptions. Buyers are scarce, and the few that do snter the market purchase lots that would not in busy times be considered any more than samples. There still an absence of any important demand for goods, and in consequence manufacturers do not exhibit any disposition to go beyond the wants of tbe present. Prices ars still irregular, for the reason that a cash customer can purchase considerably below tho prescnt asking rates. There has been no new Spring received here as yet, nor is there any actually required. The supply of all descriptions is light but sufficiently ample for all present demands. The sales are: 10,000 pounds Australia, at about 46c; 75.000 pounds Fall California, 14½@15c; 28 pounds slightly burry Spring do, 20c; 50 hags scoured Texas, 50c; 60 do X pulled, 32½@35c; 2,000 pounds super do, 40c; and 1,000 pounds Fall California, 10,000 pounds pulled do, 60 pounds Spring do, 2,000 pounds scoured do, 4 000 pounds Oregon, 10,000 pounds Montana, 75.000 pounds Western Tsxas, 250 pounds Eastern do, 2,500 X and XX Ohio fleece, 1,000 pounds low Wisconsin do, 92 bags super pulled, 50 do combing, and 12,000 pounds X do, ou terms not made public.

BOSTON, April 15th: The Wool market is dull; sales small, but no material change in prices. It is doubtful, however, what figures could be realized if Wool were forced upon the market. Ths demand for fleeces is very limited, and sales can only he made at low figures. Choice fine Wools in good condition are scarce. Sales of California Wool, 200,000 pounds, 18@21c for Fall; 17@30c for Spring, tbe latter for choice. The stock of California Wool is light and most of it not very desirable. Thirty cents is about the figure for choice Spring Wools, but burry lots are difficult to force at low figures. There is now wide range of prices. Pulled Wool is dull, with a largs stock on hand.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., April 19, 1876.

BEANS.

Bayo, ₱ ctl	—	@	—
Butter	2 00	@	2 50
Pea	1 75	@	2 12½
Pink	—	—	@ 2 50
Sm'l white	1 85	@	2 00
Lima	2 37½	@	2 40

BROOM CORN.

Common, ₱ lb	2	@	3
Choice, do	4	@	5

COTTON.

Cotton, ₱ lb	15	@	18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	22½	@	27½
Point Reyes	27½	@	30
Firkin	25	@	27½
W'st'n Reserve	16	@	20
New York	—	@	—

CHEESE.

Cheese, Cal., lb	13	@	16
do Old	10	@	15
Eastern	15	@	18

EGGS.

Cal. fresh ₱ doz	27½	@	30
Ducks'	—	@	25
Oregon	22½	@	27
Eastern	20	@	22½

FEED.

Bran, per ton	—	—	@20 00
Corn Meal	29 00	@	30 00
Hay	15 00	@	18 00
Middlings	22 50	@	—
Oil cake meal	—	—	@37 50
Straw, ₱ bale	—	—	@ 65

FLOUR.

Extra ₱ bbl	6 00	@	6 62½
Superfine	4 75	@	5 25

FRESH MEAT.

Beef 1st quality lb	7	@	8
Second do'	4	@	4½
Third do	2½	@	3
Spring Lamb	6	@	7
Mutton	6	@	7
Pork, unrefined	8	@	8½
do, dressed	11	@	11½
Veal	5	@	7
Milk Calves	8	@	8½

GRAIN, ETC.

Barley, feed ctl	1 17½	@	1 25
do brewing	1 30	@	1 32½
Chevalier	1 25	@	1 45
Corn, White	1 15	@	1 25
do Yellow	1 15	@	1 25
Oats	2 50	@	2 75
Milling	—	@	3 00
Rye	1 75	@	1 80
Wheat shipping	1 75	@	1 80
do milling	1 85	@	1 90

HIDES.

Hides, dry	13	@	15
do wet salted	6	@	6½

HONEY, ETC.

Beeswax, per lb	25	@	27½
Honey in comb	12½	@	15
do Strained	8	@	13

HOPS.

New crop	10	@	13

NUTS—Jobbing.

Alm'ds h'd sh'l lb	8	@	10
do, soft sh'l	16	@	18
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	9	@	10
Filberts	15	@	16
Pecanuts	17	@	18

ONIONS.

Union City ctl	2 50	@	3 00
Stockton	2 50	@	3 00

POTATOES.

Petaluma, ₱ ctl	2 00	@	2 12½
Salt Lake	—	@	2 12½
Sac River	1 90	@	2 12½
Humboldt	1 75	@	2 12½
Early Rose	3 00	@	3 25
Sweet	—	@	—
New lb	3	@	4½

POULTRY & GAME.

Hens, per dz	7 50	@	8 50
Roosters	8 50	@	9 50
Broilers	4 00	@	7 00
Ducks, tame, dz	9 00	@	10 00
do Mallard	—	@	5 00
do Canvass	—	@	5 00
Geese, per pair	2 00	@	—
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	23	@	25
do Dressed	24	@	27
Quail, per doz	—	@	2 50
Snipe, Eng., doz	2 00	@	2 50
Dovee, per dozen	50	@	75
Rabbits	1 00	@	1 50
Hare, per doz	1 50	@	2 00

PROVISIONS.

Cal. Bacon, L't, lb	16½	@	17
do Medium	16	@	16½
do Heavy	—	@	15½
Lard	15	@	17½
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'rn Should's	—	@	10
Hams, Cal	14	@	14½
do Armour	15½	@	16
do Worster's	16	@	16½
do Dupee's	16	@	16½
do Davis Bros	16	@	16½

SEEDS.

Alfalfa, Chile lb	8	@	10
do California	11	@	12
Canary	18	@	20
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3¼
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Meaquit do	20	@	25
Timothy	10	@	13

TALLOW.

Crude, ₱ lb	7	@	7½
Refined	9	@	10

WOOL, ETC.

SPRING—

Seedy, ₱ lb	11	@	12½
Choice long free	17	@	19
do short	14	@	16½
Burry	—	@	12½
Oregon	—	@	—

RETAIL GROCERIES, ETC.

WEDNESDAY M., April 19, 1876.

Butter, Cal. ch'ice	30	@	37
Cheese, lb	18	@	30
Eastern	25	@	30
Lard. Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam. bbl	6 25	@	6 50
Corn Meal, lb	2½	@	3
Sugar, wh. ors'd	12½	@	13½
do lt. brown lb	9	@	9½
Coffee, green, lb	23	@	25
Tea, fine blk, 50, 65, 75		@	1 00
Tea, finst Jnp, 55, 75, 90		@	1 00
Candles, Adamant'e	15	@	25
Soap, Cal., lb	7	@	10
Rice, lb	8	@	12½
Yeast Powders, doz	1 50	@	2 00
Bowen Bro. large can per doz	5 00	@	—
Small, do	2 50	@	—
Bowen's Cream Tartar lb	—	@	75
Can'd Oysters, dz	2 00	@	3 50
Syrup, S F. Gol'n	75	@	1 00
Dried Apples	10	@	12½
Dr'd Ger. Prunes	12½	@	14
Dr'd Figs, Cal	9	@	10
Dr'd Peaches	11	@	15
Oils, Kerosene	30	@	40
Wines, Old Port	3 50	@	5 00
do Fr. Claret	1 00	@	2 50
do Cal., dz. bot	3 00	@	4 50
Whisky, O.K. gal	3 50	@	5 00
Fr. Brandy	4 00	@	8 00

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., April 19, 1876.

BAGS.

Eng. Stand Wht	12	@	12½
Neville & Co's			
Hand Sewed	12	@	12½
24x36	—	@	—
24x40	—	@	—
Machine do 24x40	13	@	14
" " 23x40	12½	@	13
" " 22x40	11½	@	12½
" " 22x36	11	@	11½
Flour Sacks ¼s	9½	@	11
" " ⅛s	6¾	@	7
" " ⅛s	4½	@	5
Hessian 60-in	12¾	@	14½
do 45-in	9¾	@	10
do 40-in	8	@	8¾
Wool Sacks, 3¼ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	15
single seam no.	—	@	—
Bean Bags	7¾	@	8

CANNED GOODS.

Asst'd Pie Fruits in 2¼ lb cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	4 25	@	—
Pickles ¼ gl	—	@	3 50
Sardines, qr box	1 65	@	1 90
do bf boxes	3 00	@	—

COAL—Jobbing.

Australian, ₱ ton	—	@	10 50
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	—	@	18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Scranton	13 00	@	16 00
Vancouver's Isl.	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60

COFFEE.

Sandwich Island	—	@	21½
Costa Rica per lb	22½	@	—
Guatemala	—	@	22½
Java	—	@	30
Manilla	—	@	21½
Ground in cs	25	@	—
Chicory	27	@	—

FISH.

Sac. Dry Cod, new	4	@	4½
cases	6	@	7
do boneless	8½	@	10
Eastern Cod	7½	@	8
Salmon in bbls	7 00	@	8 00
do ½ bbls	3 75	@	4 00
do 2lb cans	2 25	@	2 40
do 1lb cans	1 25	@	1 60
do Col. R. ½ lb	5 00	@	5 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bbls	12 50	@	13 00
" Extra	—	@	12 00
" in kits	2 20	@	2 75
" Ex mess	4 00	@	4 50
" Ex mess, ½ bs	—	@	12 00
Pic'd Herr'g, bx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Golden Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50

MISCELLANEOUS.

Pulu	—	@	7½

NAILS.

Assorted size, keg	3 75	@	4 00

OILS.

Pacific Glue Co			
Neat F't No. 1.1	00	@	90
Pure	—	@	—
Castor Oil, No. l	—	@	1 15
Baker's A A	—	@	1 15
Cocoanut	52	@	55
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	—	@	70
do boiled	—	@	75
China nut in cs	65	@	67½
Sperm, crude	1 60	@	1 65
do bleached	1 90	@	2 25
Coast Whales	47½	@	50
Polar, refined	—	@	50
Lard	—	@	1 20
Cleophine	—	@	28
Devoe's Bril't	25	@	27
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro m	25	@	27½
Barrel kerosene	23	@	25
Olive	—	@	3 50
Downer Kerose'e	—	@	37½
Elaine	37½	@	—
Gas Light Oil	23	@	25

PAINTS.

Pure White Lead	9¾	@	10¼
Whiting	—	@	1¾
Putty	4	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Ochre	—	@	3½
Venetian Red	—	@	3½
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal. White & tints	2 00	@	2 40
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 60

RICE.

China No. 1	5 00	@	—
Hawaiian, ₱ lb	7½	@	7¾
Carolina, ₱ lb	10	@	—

SALT.

Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00

SOAP.

Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	9

CANDLES.

Grant's	16½	@	17
Mitchell's	20	@	22

SPICES.

Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmegs	95	@	97½
Whole Pepper	14½	@	14½
Pimento	16	@	17
Gr'nd Allsp'ce	—	@	12½
do Cassia do	—	@	1 50
do Cloves do	—	@	1 50
do Mustard do	—	@	1 20
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50

SUGAR, ETC.

Cal. Cube per lb	—	@	12
Circle A crushed	—	@	12
Powdered	—	@	12½
Fine crushed	—	@	12
Granulated	—	@	11½
Golden C	—	@	10½
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	70
Hawaiian Molasses	25	@	27½

TEA.

Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant.	75	@	1 00
do Pingsuey	50	@	90
do Moyune	65	@	1 25
Y'ng Hy., Canton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 lb hxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ & 1 lb paper	30	@	55

TOBACCO—Jobbing.

Bright Navys	50	@	85
Dark do	50	@	55
Paces Tin Foil	—	@	75
Gregory	70	@	—
Dw. f Twist	65	@	75
Light Pressed	70	@	80
Hard do	50	@	60
Conn. Wrap'r	40	@	60
Penn. Wrapper	20	@	45
Ohio do	15	@	20
Virgi'a Solok'g	45	@	1 00
Fine cut cbe'g, gr	85	@	90
Fine cut chewing, huc'ts	75	@	—
Banner fine cut	—	@	90
Cal Smoking	37	@	1 00

TURPENTINE.

Eastern	51½	@	55

S. F. RETAIL MARKET RATES.

WEDNESDAY, M., April 19, 1876.

POULTRY, GAME.

Chickens	87	@	1 25
Eggs, Hens	35	@	40
do Ducks	—	@	30
Turkeys, ₱ lb	25	@	—
Ducks, each	1 00	@	1 25
Geese, wild, pair	—	@	—
Tame, ₱ pair	4 00	@	5 00
Snipe, ₱ doz	—	@	—
do English	—	@	3 00
Quail, per dozen	—	@	—
Prairie Ch'k a, pr	—	@	—
Hares, each	25	@	35
Rabbits, each	25	@	37
Squirrels do	10	@	15
Hams, Cal. ₱ lb	16	@	20

FISH, MEATS, ETC.

Flounder, ₱ lb	15	@	18
Salmon, ₱ lb	—	@	20
Smoked	—	@	10
Cod Fish, lb	12	@	15
Lake Big. Trout	—	@	35
Beef, tend, ₱ lb	20	@	25
Corned, ₱ lb	8	@	10
Smoked, ₱ lb	25	@	15
Porter House St'k	20	@	25
Sirloin do	15	@	20
Round do	10	@	12
Pork, rib, etc., lb	12½	@	15
Chops, do,

Amended Squirrel Law.

The following is a certified copy of the amended squirrel act:

An Act to ameud an act, entitled an Act to abate the squirrel nuisance in certain counties in the State of California. Approved Mar. 10, '74.

The people of State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section 3 of said act is hereby amended so as to read as follows:

Sec. 3. The Board of Supervisors may in their discretiou create squirrel inspection districts, composed of one or more school districts, and may in their discretion appoint a suitable person in each of the said districts to the office of squirrel inspector. Said board shall be governed as far as practicable in their judgment for the best interests of the district in making such appointments by the recommendation of the land owuers, claimants and occupants of landin said districts. The appointee shall qnalify with the usual oath of office, and such bond as the Board of Supervisors may require, and hold office at the pleasure of said board. The Board of Supervisors may fill any vacancy that may occur from any cause in the said office, and the said inspector shall be held responsible to the owner or occupants for any unreasonable or unnecessary damage that may occur in entering upon lands for the purpose of destroying squirrels.

SEC. 2. Section 7 of said act is hereby amended so as to read as follows:

Sec. 7. When there has been refusal or neglect for two weeks by any laud owner, claimant, or occupant of land in any squirrel district provided for by this act, to comply with the provisions of the last preceding section of this act, the inspector of said district shall employ men and means sufficient and proceed at once to destroy the squirrels upon such neglected lands, and shall cause to be filed a notice of such intention in the Recorder's office of the county, designating the name of the delinqueut owuer, if knowu, and the laud by name, or other description sufficient for its identificatiou, shall serve notice in writing upon the occupant of such land of having filed such notice of intention, and shall keep an exact accouut of all expenses, includiug his own per diem, incurred upon such neglected lands, as owned, claimed and occupied separately, and together with the description of the land as above provided, file the same with the County Recorder. Provided, when separate pieces or tracts of lands shall belong to the same owner, work shall be done on all such separate tracts, and be included in the same filing, which shall be done on the completion of the work; aud provided that the owner, claimant or occupant may present himself to the said inspector at any time before the filing of such accounts, and settle the same by payiug all actual expenses. The said iuspector in such case will omit the filing and pay himself and employees for the work done on the land so settled for. Immediately after filing of the aforesaid accounts and description of land, the County Recorder shall add 10 per cent. of such accounts, and shall proceed immediately to record the same in a book to be by him kept for that purpose. The said record shall be deemed to impart construction notice of the aforesaid lien to all persons, and shall be deemed to relate to the time of filing the notice of intention, as herein provided.

SEC. 3. Section 9 of said act is hereby amended so as to read as follows:

Sec. 9. The iuspector shall, when he has reason to believe there are squirrels in any part of his district, inspect any fields he has reason to believe are infested, and if the squirrels are fonnd npon private lands, owned, or occupied, and no sufficient or adequate means, in his judgment, are being nsed to destroy the same, he shall employ all uecessary help and means, and proceed at once to destroy the squirrels thereon in like manner as provided for destroying squirrels upon neglected lauds, in Section 7 of this Act; and he shall keep and file exact accounts and descriptions of the land, as provided for in said section. If the squirrels are upon public lands, uuoccupied, he shall proceed in like manner and file his account, as provided for in Section 2 of this act.

SEC. 4. Section 11 of said act is hereby amended so as to read as follows:

Sec. 11. When the acconnt of any inspector has been on file with the Conuty Recorder 60 days unpaid, the said Recorder shall pass the account over to the District Attorney, and the District Attorney shall add 15 per cent. to the acconnt for attorney's fees, and then he shall bring suit in the name of the people of the State of California, in the proper court, to recover the amount of the account and percentage. He may bring as many actions either to foreclose the lien, or against the person liable in the premises, as may be necessary to enforce the claims. Service of summous in all suits to be made the same as in other civil actions —provided that when there is more than one cause of action against the same party, they shall all be embraced in one suit. And provided further, that when it becomes necessary to make service by publication, the Board of Supervisers shall notify the owners or publishers of all the newspapers in the county of their intention to publish said summons, and award the publication to the lowest bidder therefor.

SEC. 5. Section 13 of said act is hereby repealed.

SEC. 6. This act shall take effect and be in force from and after its passage.

Approved March 18th, 1876.

WILLIAM IRWIN, Governor.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

TREES FOR FRUIT AND ORNAMENT.

500 Acres of Trees at Wholesale & Retai

Pear, Apples, Cherries. Quinces.
Peaches, Plums and other Small Fruits.
New and Rare Ornamental Trees and Shrubs.
Evergreens, large quantity, large variety, cheap.
Cut-leaved Birch, Purple Beech, Weeping Trees.

Clematis Jackmanni—Hardy and perpetual; blooms profusely nntil frozen up.

Perpetual White Clematis, 15 sorts. We have over 70 varieties of Clematis, in many shades of color, from dark rich purple to pure white—strong plants, safely sent by mail.

Roses, Moss, Tea, Climbing and Perpetual.

Small Packagee sent safely by mail and express.

☞Catalogues free. Address

T. C. MAXWELL & BROS.,
Geneva, N. Y.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general as sortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v3-tf Petaluma, Sonoma Co., Cal

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus)
Monterey Pines and Cypress, etc.

The nndersigoed, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, rang from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,
Haywards, Alameda Co., Cal.

November, 1875.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurserymau, Petaluma, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalognes, 25c.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers hie entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, some fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,
(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

Agricultural Articles.

Straw-Burning Attachment.

KING'S PATENT.

THE ONLY SUCCESSFUL BURNER YET INTRODUCED.

Having secured the exclusive right to manufacture and attach to engines, J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of threshers to notice why it is superior to all other Straw-Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

The Attachment

Can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced County.

All orders addressed to J. R. KING, Patentee, in care of the Globe Iron Works, or H. C. SHAW PLOW CO., Stockton, will receive prompt attention.

☞Send for Circulars.

JOHN CAINE,
Proprietor Globe Iron Works

MATTESON & WILLIAMSON'S

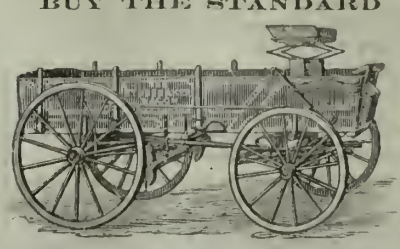
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,
Send for Price-List. Sacramento, Cal.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power

[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water, Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order, Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,
Cor. J and 10th Sts., Sacramento.

ÆTNA MOWER AND REAPER

Price of Mower, $100.

The Latest and Best. Weight, 650 lbs; cuts four feet, four and one-half inches. It has ALL THE IMPROVEMENTS of every first-class machine, besides a DOUBLE SPEED (which no other has), giving a fast or slow speed to the knife or sickle an important advantage. Send for Illustrated Pamphlet, and don't fail to see the "ÆTNA," before buying. For sale only by

BERRY & PLACE, San Francisco.
(Successors to Treadwell & Co.)

☞We guarantee to keep "extras" on hand from year to year for this machine.

OAKLAND Spring Balance Gang Plow

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1853. Send for Circular and Price-list.

CHUFAS AND JAPAN PEAS.

The introduction of these crops throughout the South will enable us to keep our stock and fill our smokehouses as cheaply as it can be done at the West. The Chufa is planted in a ridge like potatoes, yields on common land 200 bushels per acre of the richest feed, unequalled for fattening hogs, poultry—and children. One acre will fatten more hogs than ten acres of the best corn, besides furnishing grazing all summer. For the truth of these claims we refer to U. S. Commissioner of Agriculture, Washington, or to any agricultural paper in the South. Price, by mail, postage paid, 20c a package, 40c a pint, 75c a quart; by express $1 a peck, $15 a bushel.

The Japan Pea fully established its merits several years ago, and is now in universal demand. It grows upright like a cotton stalk, is cultivated like corn, and yields from 150 to 300 bushels per acre on ordinary land. Stock of all kinds relish it and thrive highly on it without other feed. Also excellent for table use (after boiling for about a week). Price, by mail, postage paid, 15c a package, 30c a pint, 50c a quart; by express, $3 per pack, $10 per bushel. These seeds are so scarce and costly that we cannot make any discount to wholesale dealers or Granges.

When Southern planters grow their own stock-feed and fatten their own hogs we shall hear no more of hard times and "middlemen," for this will put an end to both. If you fear to invest largely it will cost but a trifle to try these seeds, and unless your experience differs from all others you will be forever thankful for the trial. Address,

A. F. WHITE & CO.,
Nashville, Tenn.

ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the O. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

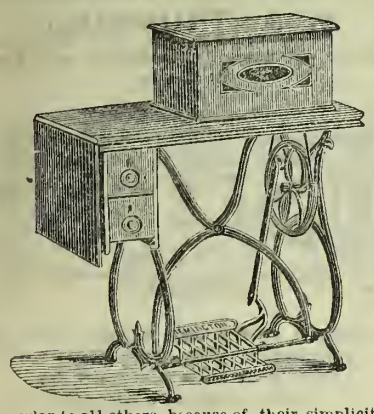
ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

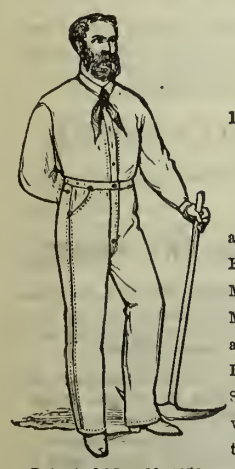
SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

LIBERAL ADVANCES ON CONSIGNMENTS.

LEVI STRAUSS & CO.,



Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

H. H. H.

HORSE MEDICINE,

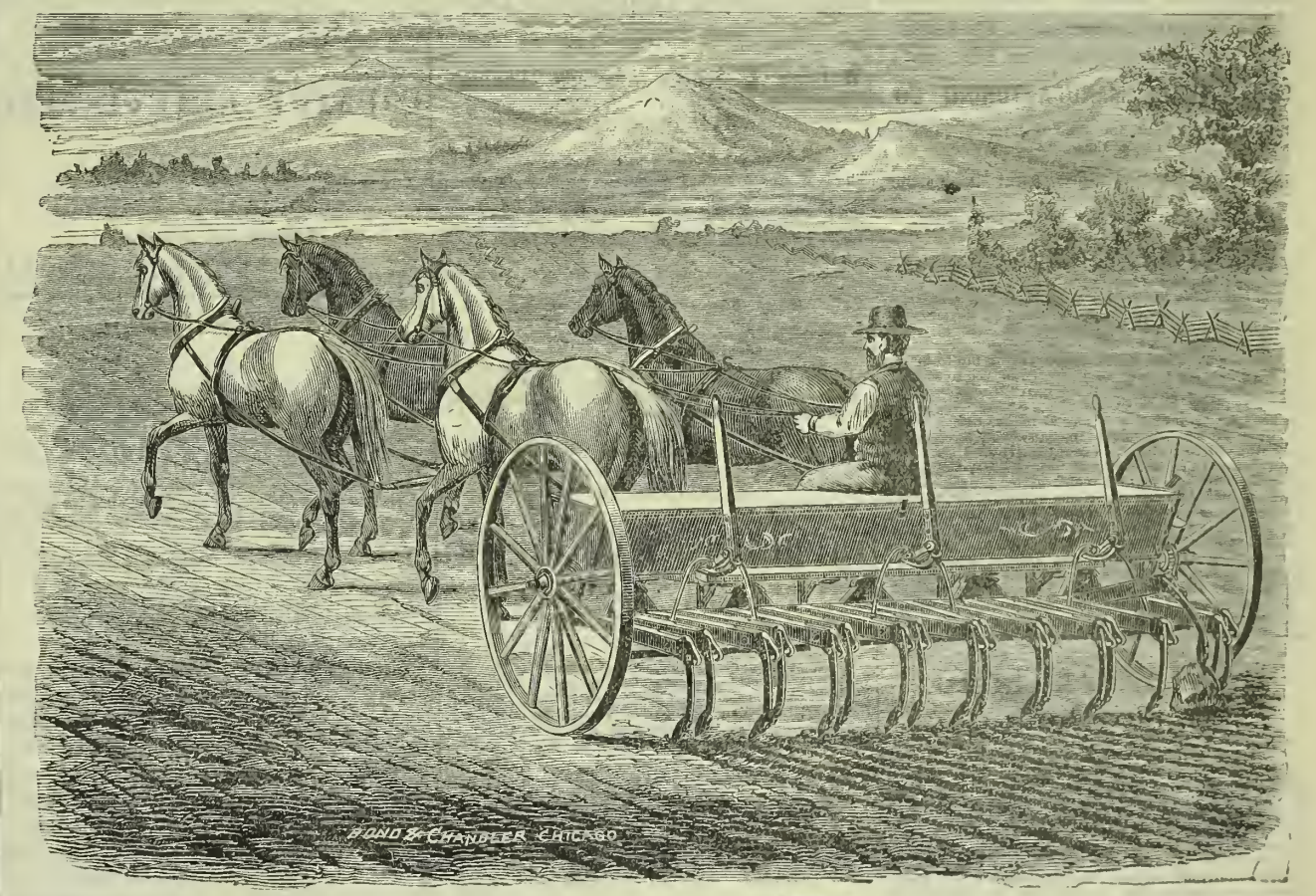
D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

GORHAM SEEDERS AND CULTIVATORS COMBINED.



In Sizes from 6 to 14 Feet Long. The Only Reliable Combined Broadcast Seeder in Use. Will Seed and Cultivate from 12 to 35 Acres a Day.

MOWERS.

Excelsior, "Junior and Medium," Russell's "Peerless" Mowers, Ætna Mowers, Wood's Mowers, Meadow Lark Mowers. The leading Machines of the day at prices below all others.

Reapers.

Excelsior "Dropper," Wood's "Sweepstakes," Russell's and Ætna Side Rakes.

HAINS' HEADERS.

The perfection of these Headers can only be appreciated when seen. They combine all that is valuable in other makes, besides many improvements to be found on no other. Don't fail to see them; you will save money and get the best. Also TREADWELL'S SINGLE GEAR PATENT REEL HEADER.

COATES' LOCK LEVER RAKE,

Awarded the First Premium at State Fair last fall as the best steel tooth hay rake.

Sulky Revolving Rakes,

Just the Rake for all kinds of Grass.

HEADER WAGONS,

Both Iron Axles and Thimble Skeins.

J. I. CASE & CO.'S 18-Horse Engines.

These celebrated and powerful Engines, so complete in all their parts, fresh and new from the factory, will be sold very cheap. We are prepared to give these Engines any kind of test to show their power over other make with less fuel.

40-INCH SEPARATORS.

We want all interested parties to look at our Separators, believing they will see the most perfect Thresher ever imported, at less figures than ever sold here.

Halladay's Windmill.

Over 130 different railroads are using them. They are the standard mill the world over. We sold more windmills last season than has ever been sold by one house on this coast in the same length of time. We have found by dear experience that Mills that have no rudder are unsteady and flop around, literally wearing themselves out, and at the same time do but little work; besides, are liable to blow down; we can furnish any size from eight feet to 60 feet in diameter, from one to 40-horse power, and guarantee them for five years.

It will pay all who are looking with a view of making selections among the different lines of Implements to see our stock, and get the lowest ruling prices. Our stock embraces everything in the Agricultural Implement line. Send for Price List and Catalogue.

KELLER & CO.,

43, 45, 47 J Street, Sacramento, Cal.

CALVERT'S

CARBOLIC

SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

H. K. CUMMINGS. 1858. H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have o interests that will conflict with those of the producer. 4v23-1y

Treadwell's Patent

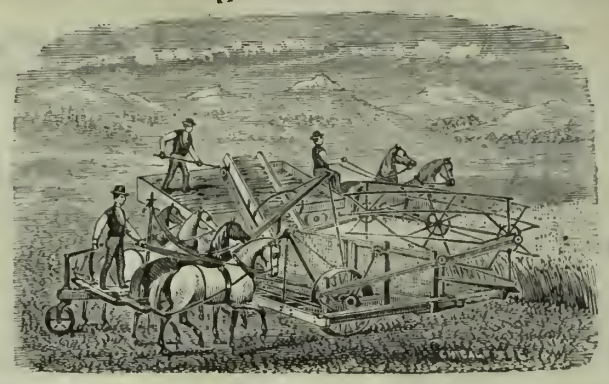
END-SHAKE THRESHER.

MADE BY RUSSELL.

We have 24, 30, 33, 36, and 40 inch machines, made this year, all with Laufenburg's patents, and the celebrated End-Sheke Shoes—the greateet improvement yet made in Separators. Send for circulars and prices.

Treadwell's Single-Gear California Header.

High Iron Wheels with Adjustable Spokes.



Patent Adjustable Reel and Frame Brace.

No other Header has these Improvements.

☞Any farmer buying $300 of worth machines or implements of us, will be paid his fare to San Francisco and back, if uot over 200 miles. He can thns come and see for himself, without any expense. Send for our prices helore ordering any machines.

HOADLEY'S

Threshing Engines.

REDUCED PRICES.

9 Horse Power, new style, complete							$1,200
12	"	"	"	"	"		1,450
15	"	"	"	"	"		1,650
15	"	"	Patent Straw Burning Engine				1,700

BERRY & PLACE, - - - Old Stand, Market, head of Front Street, - - - San Francisco.

THE

Improved Eagle Hay Press,

CHEAP, STRONG, ECONOMICAL, POWERFUL AND RAPID.

THE KIMBALL MANUFACTURING CO.,

Owners of the Patent, and Sole Manufacturors on the Pacific Coast, make

Cars, Carriages and Agricultural Implements,

Cor. Fourth and Bryant streets, S. F.

Pressing hay in bales in a compact and easily managed shape has become one of the features in the industry of Californla farmiog.

The large sales the past seasou, and the increasing demand of the present, gives proof of the advaucement of the Improved Eagle Hay Press over all competitora on this Coast.

Three men, with a team, can hale from ten to fifteen tons per day, each hale weighiug from 250 to 350 lbs., according to the quality of the hay. It uees less rope than any other press of its size. Size of hale box, 49 inches long, 26 inchea wide and 27 inches high.

These presses are made in San Francisco, hy the KIMBALL CAR AND CARRIAGE MANUFACTURING CO. Also maunfacturere of agricultural impiements, California grading scraper, farming tools, carts, plowe, wheelharrows, portaole railway track and cars, railway and street cars, omnibusses, Taylor's patent tubular iron and wood harrowe, with driver's seat attached, Harrie' pateut tubular iron squere or Scotch harrow, steam fire engines, Hayes' patent fire escape, Sonthwick'a patent turbine windmill, quartz and farm wagons, trucks, road scrapers, all styles and grades of harness; carriages trimmed to order; manufacturers and agents of Tulloch's automatic ore feeder; machinery made and repaired; flue carriages and all styles of huggies.

RUPTURE.

IF RUPTURED

You should he Cured or Relieved, without Inconvenience or Restriction in Exercise or Diet.

Dr. Rowe, in order to arrivo at the absolute certainty of the correctness of the peculiar course of treatment invented aud adopted by him, devoted great attention to the mechauism of the structure involved in the course of hernia, so that he is uow assured, hy a large experience, that it is in accordance with the principles of science, and with the most universally acknowledged practice of artistic surgery, and he asserts with confidence thus inspired that it permanently relieves all cases of redncible hernia, without regard to the age of the patieut or the duration of the injury, while it is wholly free from all the cruelty that has characterized the treatment of the malady with tortnrous trusses from the earliest age to the preseut day. He therefore invites the earnest attention of the afflicted and closest scrutiny of the profession. Experience shows that all tempered spring trusses necessarily press upon and often *disease* parts of the body that before were in a healthy condition. Lnmbago and other equally distressing ailments are not unfrequently the outgrowth of auch pressure, and in view of this fact it becomee a matter of decided consequence to avoid like calamitiee, if poseible.

No persou suffering with or troubled by hernta, should he without them. 1st—There are no tempered springs to confine the body. 2d—The preseure can be raised from one ounce to forty pounds. 3d—Pressure only where the bowels escape. 4th—Pressure up aud back, therefore retaining the hernia at all times. 5th—This instrument is worn with perfect ease while riding horseback. 6th—Rupture retained and the pressure the same while in any position. 7th—Its extreme lightnees and facility of adjnstment give it preference over any other now known to he in use. The superiority of these instruments over the rigid iron hoops, which in former days were the only recourse of the ruptured, admits of no argument. Consultationa and Examinations Free.

These Trusses sent to any part of the country hy Express (Terms—C. O. D.) upon receipt of measure around hips, and statement whether single or double ruptnre.

ROWE ELASTIC TRUSS CO.,

609 Sacramento Street, near Montgomery,

Up Stairs,) SAN FRANCISCO.

Our Agents.

OUR FRIENDS can do mnch in aid of our paper and the canse of practical knowiedge and science, hy assisting Agents in their lahors of canvassing, hy lending their influence and encouraging favors. Wa intend to aend none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
JOHN ROETRON—California.
G. W. MCGREW—Santa Clara conuty.
J. M. MOARTHUR—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
J. W. RILEY—San Francisco.
WILLIAM PARTIN—Alameda county.
DR. J. T. JOHNSON—California and Nevada.

SUTTER CREEK, February 26th, 1875.

MESERS. DEWEY & Co.—I have received my Letters Patent through your Aagency. nd, for your promptness, accept my thanks. Yours, S. N. KNIGHT.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Colebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

The attention of farmors is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to he to their interest to call on me before buying, as I am selling everythiug very low for cash.

ORRIN TABER.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, wheu the fork has heen lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to exemiue this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL.,

Will receive Prompt Attention.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY, EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS.

PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

POND LILIES,

WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,

Pacific Forest Tree Nursery, Petaluma, Cal.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per dey. Good Home Market and Never Failing Water.

S. A. POLLARD,

San Luis Obispo.

CHOICE VOLUMES.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.

Lands and Homes for Sale.

FOR SALE

—BY THE—

COUNTRY REAL ESTATE ASSOCIATES.

Officers and Directors.

G. W. COLBY.....Nord
J. VOLLMAR.....S. F.
J. D. BLANCHAR.....Napa
C. MITCHELL GRANT.....
J. REGENSBURGER.....S. F.
A. W. THOMPSON.Petaluma
F.A. KIMBALL....San Diego
I. G. GARDNER.....S. F.
G. P. KELLOGG.....Salinas.

500,000 ACRES

Of the choicest farming land in CALIFORNIA, subdivided into small farms of from 40 to 600 acres, for sale on favorable terms.

The Company is now fully ready for the transaction of business, and all persons who have lands for sale, or who wish to purchase land are requested to call upon the Secretary.

J. R. READ, 40 California Street, S. F

Valuable Land For Sale.

I offer for sale 341 acres of land, all in grain. The land is rented for the season for one-quarter of the grain in the sack. I will sell the land with house and buildings for fifty dollars per acre, which is a good hargain. The grain on it is now in No. I order. The plentiful rains have given it a splendid growth, insuring a large crop for the season. The land is nearly all level. It adjoins the Wolfekill grant and is about two and one-half miles from Winters. Parties will enquire further of the owner, H. FREDERICKS, seven miles north of Winters, Yolo County, Cal.

DESIRABLE RANCH FOR SALE.

Containing 86 acres, every acre of which is the best of soil and in an excellent state of cultivation, and within two miles of Napa City. Twenty acres in bearing vineyard. An orchard of 250 bearing cherry trees, 100 peach, 70 prune and plum, 12 almond, 50 English walnut and Italian chesnut, and one-half acre in currants and blackberries. One pair of excellent farm horses, one three-year-old colt, farm wagon, spring wagon with two seats, and about 100 fowls; house of three rooms, hard finished, barn, chicken house, etc.: furniture, crockery and glassware. An excellent spring near the house. Any person looking for a home and a place that will pay, will find no more desirable place in California. Every implement needed on a ranch will be found on the pleco, even to an improved Buckeye reaper and mower with self-raker.

Inquire of D. S. TALLMAN, at the Post-Office, Napa or address H. W. HASKELL, Napa, Cal.

FOR SALE CHEAP.

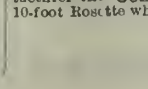
A place of one hundred and seventy to two hundref acres, adjoining Yountville, Napa valley, near R. R. depot. There is on it a bearing vineyard of foreign Grapes; also, small orchard of Cherries, Peaches and Apples. The land is bottom and hill. Over two thousand cords of wood can he cut. Will he sold in part or whole, to suit. Apply to

G. C. PEARSON,

Vallejo, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.



Farmers — Don't waste your money on agents and middlemen, but buy direct from the manufacturer the Centenniai Windmiil. A first-class 10-foot Rosette wheel. Price $75. Send for Circular.

E. O. HUNT,

37 Fremont street, San Francisco.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

***My "Gnide to the Vegetable and Flower Garden' will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the cniture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illnstrated Circniar, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

The Mining and Scientific Press,

Established 1860, is a Large, Ably Edited and Liberally illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & Co., San Francisco.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, APRIL 29, 1876. [Number 18.

Our Centennial Views, No. 1.

We are pleased to announce to the readers of the PRESS that we are now ready to begin our Centennial campaign, and can promise condensed reports of all interesting characteristics of the grand exhibition as they are developed during the summer. We promise this with all confidence, because the writers who will represent the PRESS are tried and true and already known to our readers. We may remark, in his absence, that our senior editor, Mr. W. B. Ewer, will carry our flag into the thickest of the concourse and gain for us fresh notes of features as they unfold themselves. Nor do we congratulate ourselves less upon the fact that "Mary Mountain," our much prized contributor, will represent us at the exposition and give all a chance to revel in her chatty descriptions of affairs. Upon the whole we are sure that our readers may trust the PRESS for the best possible report of the nation's great event.

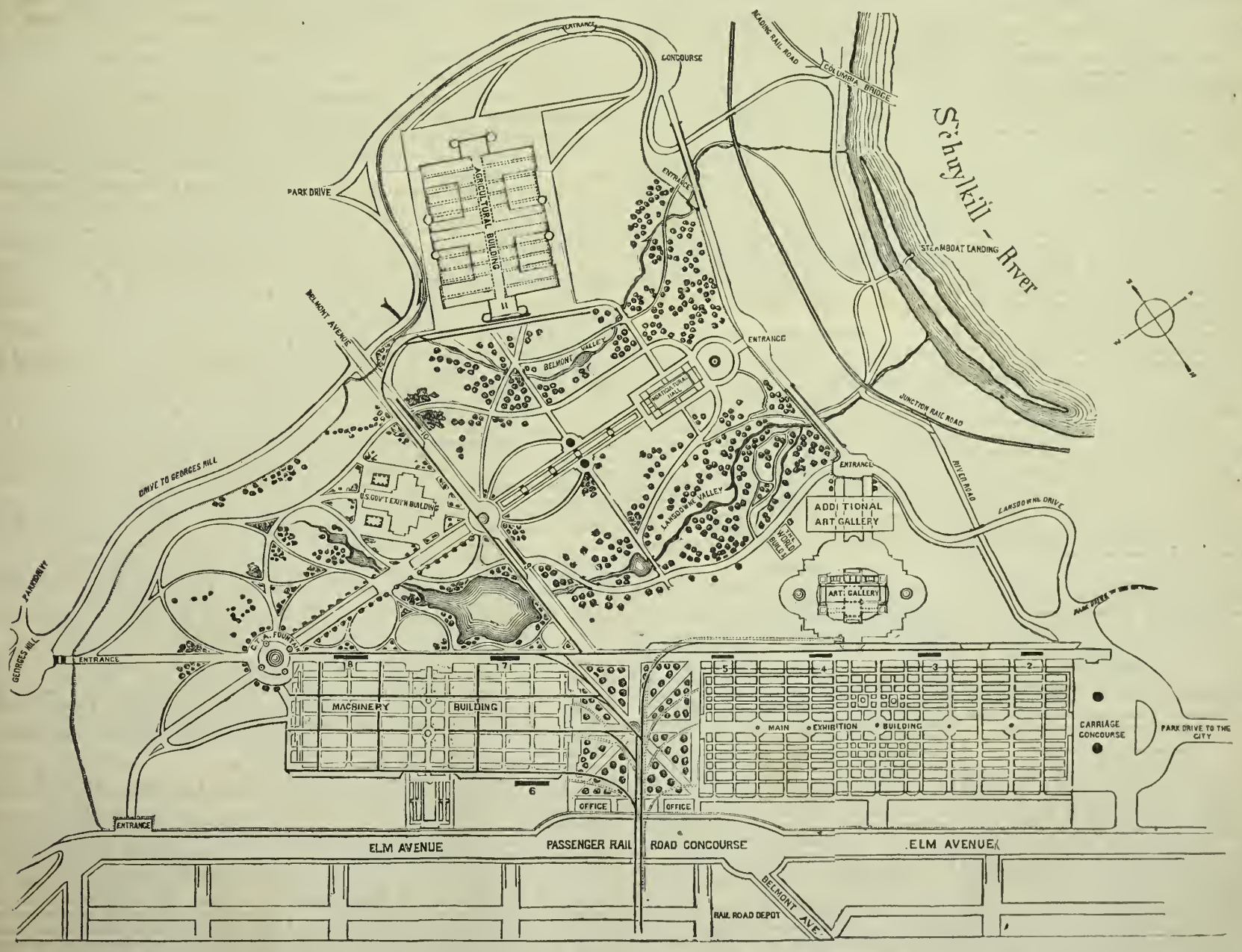
The Park and the Buildings.

EDITORS PRESS:—We begin our Centennial articles with an illustration giving a view of the whole field, the location of the buildings and methods and avenues of approach. By keeping this plan for future reference our readers can very easily follow our glances from place to place and realize better the scenes which we will describe for them. Yesterday I visited Fairmount park, and after wandering through the main building (which roofs a farm of nearly 22 acres,) and the machinery building (which shuts in 14 acres more,) I ascended some stairs at the center of the north side of the latter building and looked out from an elevation of 50 feet over the expanse of the grounds. The fronts of the machinery and the main buildings stretch away to the right nearly three-quarters of a mile. In front of the main building, at a considerable distance and on a slightly elevated plateau, stands the costly and permanent granite art gallery, Memorial hall. Behind it, towards the Schuylkill, can be seen, through the naked branches of intervening trees, the foundations of the supplementary gallery of paintings and sculpture which the pressure of applications for space from almost every principal art center of the world has necessitated.

In front of the machinery building is a lake, in the center of which appears a future fountain. Other lakes and ponds gleam here and there in the sunlight. Beyond the lake, a little to the left, is the United States Government building, picturesque from the distance. Farther off, to the right, the horticultural building shows its graceful outlines and bright colors. Midway between it and the Government building, is the women's pavilion, over the turrets of which, towards the remotest angle of the grounds, the tinned roof of the agricultural building turns like a shield the blinding lances of the sun. Away to the left, toward the famous Belmont drive, the buildings constructed by the British commission are situated, and a little further on a dark cordon of sight-seers surrounds the Japanese workmen in native costumes at their task of putting up the strictly Japanese buildings which are to accommodate the Japanese officials and a certain part of the Japanese display. The judges' pavilion commands the interspace between the main and machinery buildings. The music pavilion intersects Belmont avenue, which loads obliquely through the grounds beyond the lake. In different directions the walls of the American, French and other restaurants are visible, and the pavilions and cottages to be occupied by the commissioners and agents of Germany, Sweden, Turkey, Morocco and other foreign countries, and by those of Pennsylvania, Ohio, New Jersey, Indiana, Illinois, Missouri, Kansas and other domestic States, are in all stages of erection in different parts of the enclosure. From 150 to 200 separate structures will be finished by the 1st of May, and will cover altogether some 75 acres.

Upon the highest ground in Fairmount park, a short distance north of the inclosure round the exhibition grounds, there has been erected an observatory 150 feet high. From this the view of the grounds, the city and its environs will be uninterrupted, even by the tallest primeval trees that beautify the banks of the Schuylkill.

The plan of the grounds embraces seven miles of roads and foot paths, bridges across shaded and precipitous ravines, summer houses, and numerous fountains fed by water supply equal to that at Versailles. The George's hill reservoir, just outside the enclosure, contains 40,000,000 gallons; but in addition to this source the river, which laves the northern rim of the exhibition grounds, will supply through pumping engines 6,000,000 gallons more a day. Not only the fountains, but the boilers of the steam engines in the main building, the machinery building and agricultural hall, are thus to have plenty of water; and the mains and drains, which those in authority tell me are complete for all emergencies, will be thoroughly drenched and purified.



FAIRMOUNT PARK AND THE CENTENNIAL BUILDINGS.

WEST SIDE COMMISSIONERS.—Governor Irwin recently appointed Francis Williams, of Antioch, and J. R. McDonald, of Grayson, as members of the Board of Commissioners for the West Side irrigation district.

THE bill transferring the Indian Bureau to the War Department has passed the house.

CORRESPONDENCE.

Botanical Excursions.

[By J. G. LEMMON.]

No. 2. The Northern Valleys and Lassen's Peak. (Continued.) Part II. Butterfly Valley and the Darlingtonia.

Butterfly valley is a small out-lying dell in the high forest six miles northwest of Quincy. It must be peculiarly situated, and its origin as singular, for it is endowed with the greatest variety of rare, radiant and curious plants of any locality of its size met with thus far in all my exploration of the Sierra. This valley is most intimately related to all my labors, aspirations and achievements—such as they are—for the last five years. The course and aims of my life were so changed by a discovery made here that I beg the reader's indulgence while I narrate.

In Black Hawk ravine, a mining camp near here, while following the business of book selling, five years ago, I found in an almanac a small leaf of a plant most interesting in appearance and which I recognized as belonging to the *Saracenia* order, but O, so different from anything ever seen before! All the latent botany of my being—repressed for a lifetime because there was no money in it—was aroused beyond control. I demanded its origin. No one could tell. I ran from house to house. No clew to the place of its growth. At last I bethought me of the children—those natural conservators of such facts—and beset the first group met. "I know," said little Mamie Austin, "Uncle Rice brought it down from Butterfly." Here was light. Arrangements were made to have Uncle Rice meet me there two months from that day and guide me to Butterfly and the secret ravine where grew this curious plant. Before the time arrived, as I continued my long trips, I displayed the treasured leaf freely, and at the day agreed upon for the search I met at Black Hawk four persons, with whom I was subsequently to form the most sincere and enduring friendship—Mr. and Mrs. Moser, of American valley, and Mr. and Mrs. Ames, of Indian valley, the last the excellent lady and botanist so often mentioned and honored since by Drs. Gray, Canby and Thurber.

Our hostess at Black Hawk, Mrs. Austin, with her children, also joined the exploring party. This lady, with her husband and family, soon after bought the wonderful Butterfly valley and removed to its Eden garden, where she and Mrs. Maxwell, residing in Glendale, just below, have since done most important botanical work, requiring the expenditure of much time and the closest scrutiny day after day, during season after season.

It was quite a cavalcade, that exploring party. The ladies and children were on horseback, the gents on foot, with the good souled Uncle Rice in the advance, all toiling up the steep mountain trail, tearing through bushes and plowing across streams, but the view that awaited repaid all. Our guide cunningly led the way as if to pass the object. "O, look! There they are!" shouted Mrs. Ames, pointing down toward a small round meadow, bordered with alder bushes, through a gap in which appeared the most wonderful plants to be seen north of tropical America. Every eye was fixed; every throat gave a single exclamation of delight that formed a strange chorus. The ladies and children were quickly helped to the ground and all together ran down to the alders. There, thickly covering a space of a fourth of an acre within the alders, stood the long, tubular, swollen stalks, surmounted with balloon-like scarlet hoods, with dependent, curled, crimson, mustache-like wings, all constituting the insect-catching leaves of the

Darlingtonia Californica.

What a feast followed! How the children ran to pluck and bring leaves to be compared and admired! How we reveled and wondered! Mr. and Mrs. Ames gathered a mass of specimens to be studied at leisure in their quiet home. Mrs. Austin sat down by a splendid plant and at once commenced the close scrutiny which she has continued to give the living plant so many weeks and months since. Some 11 patches of *Darlingtonia* she has found in and around Butterfly, generally clustered around cool springs on a southern slope and at an elevation of about 4,000 to 5,000 feet. Another insect-devouring plant grows in the same bogs with it, the *Drosera rotundifolia*; and on both of these plants Mrs. Austin has bestowed observation and experiment that will be read with interest in lands beyond the sea, for she is as good at noting and reporting as at experimenting.

Observations on Darlingtonia.

Dr. Canby, of Wilmington, Del., wrote, asking 32 questions, and Dr. Gray a long list more, relating to this wonderful plant, its structure, how and what it catches, and what for. Such is the interest manifested, that it will not be strange if one of these eminent scientists, or even the renowned Darwin himself, should visit Butterfly valley in the near future, and there institute those chemical experiments and microscopic observations that determine the law of development by adaptation, which in scarcely any other plant is more beautifully and distinctly illustrated than in *Darlingtonia*.

Fortunately Prof. Bessey and others have lately, through the columns of the PRESS, familiarized your readers with the structure, habits and appearance of this carnivora, so I will only add a few important facts, indistinctly derived from dried specimens sent him by me, and reported by Dr. Canby before the American Academy of Sciences, but now abundantly verified by observations on the living plant by Mrs. Austin and myself.

1. The infant leaves. Each season produces a whorl of four leaves, in infancy very different from the leaves on older rhizomas—tubular, open-mouthed, with a long, slender, crimson projection of the mid-rib of the petiole, beyond the large mouth, instead of the hood with the small covered aperture and "mustache" of older plant leaves. This curious departure from the true *Darlingtonia* leaf is sometimes found upon small off-sets, mixed with the other leaves, and affords an argument for the development theory, being evidently vestiges of a change this plant has undergone from the open-mouthed, simple-leaved *Saracenia* to this carefully concealed trap and decoy of the *Darlingtonia*.

2. The twisting leaves. The leaves of mature rhizomas are each twisted one-half of a turn round, whatever the length, whether but a half inch or three feet. All the leaves on one plant turn one way, but exactly half of the plants have leaves turning one way, the other half the other way. The four leaf stalks rise to different elevations, the last of the season the highest. Each holds its head outward, *i. e.*, presents its brilliant mustache and entrapping hood facing outward from the center or axis of the plant—evidently with the design of enticing and snaring insects coming from any direction.

3. The alluring sweets. A saccharine fluid of the consistency of honey is secreted by the glands of the hood both without and within, standing in beads along the margins of the expanded cells forming the translucent hoods, and often so abundant as to unite and run down, that on the inside into the forward depression of the hood, that on the outside smearing the mustaches completely, in addition to a similar secretion of the latter.

4. The drowning wells. A water-like fluid is secreted by glands on the inner surface of the tubular petiole, or leaf stalk, which begins to appear at the bottom the very day that the orifice begins to open in the hood above. This fluid continues to accumulate as long as the catching season lasts, is always sufficient to cover the mass of insects, and where the trap is so favorably situated as to catch its stomach full, or when fed to the top, as has often been done, slowly, the fluid will still rise to the necessities of the times, and fill the tube to overflowing.

Why this Deadly Trap?

A most puzzling question. Of course, to catch insects; but why to catch them? What for? While watching the movements of a swarm of insects, hovering over a patch of *Darlingtonia*, this season, I took a hint—a mere fancy, to be sure, but if the flowering season continued through the summer, there would be a color of reason in it. I fancied I detected the operation of a law that rises into the realm of morals and endows these plants ever after with a new interest to me. The operation is no less than the astounding spectacle of a penalty—a death penalty—inflicted by the vegetable kingdom upon the animal, for the sin of disobedience.

Fertilization.

This hint was connected with the fertilization of the plant. Let us glance at the process in detail: The single large flower of the *Darlingtonia*, elevated on a tall scape, from a few inches to two feet above the hooded leaves, is turned downward, at the time of first opening, like a bell; afterward it unbends and becomes erect. While downward the flower expands, the pollen is discharged and the ovules fertilized; but at a first glance it seems impossible as the essential organs are disposed. The five pistils in the center curve outward and upward, bringing their stigmas into the apex of the bell, where in nectaries are stored the choicest sweets. The five stamens extend downward along the distended petals, holding at arm's length their anthers, a long distance below the stigmas. Now, how will the grains of pollen, discharged from the anthers, get up to the stigmas, else the ovules will not be fertilized—will not mature? See! Here are oval apertures formed by opposed notches in the sides of the crimson petals, through which on five sides you observe the flaming yellow, green and purple sepals, colored and curled so as to form attractive objects from any direction.

Insect Agency.

The flying insect disporting himself among the flowers for the few brief hours of his existence, has an important mission of usefulness to perform in the economy of nature, until of late totally unsuspected.

Always attracted to bright objects—as the moth to the candle, the humming bird to the artificial flower—the flying insect spies in the distance a most fascinating object. As he flies towards it his olfactories are greeted by delicious odors, increasing his speed. Alighting momentarily upon the flaming floral envelopes, he finds the increased fragrance issuing from the openings. Immediately he enters, climbs up to the nectaries, but on the way crowds against the partially obstructing anthers and carries a back-load of adhering pollen grains up and presses them against the viscid stigmas, while diving to his shoulders in the jar of sweets—and thus the flower is fertilized, thus the plant continues to bear fruit year after year, thus the tiny insect is made subservient to use, designed and appointed from the beginning.

Vegetable Vengeance.

Failing to do this (and here is where the fancy spoken of comes in), too heedless of the inborn dictates of duty, or foolishly suspicious of danger in entering a dark flower, the poor creature maunders on in the world exposed himself to destruction by other animals, or starves to death; but in the case of the *Darlingtonia* the neglected flower is avenged (if I may be allowed to use the word) by the cunning leaf of the same plant.

Missing the apertures in the flower, or sheering off from suspicion, yet wheeling round and settling in his flight, he sees the flaunting lure of the mustache below, slights upon the very innocent looking hood, feeds upon the sweet and no doubt intoxicating secretion, enters the opening beneath—the thin membrane of the upper surface of the hood fully admitting the light, so he sees his way clear, journeys on over the honey pastures, gorging himself with sweets, passes easily the boundary rim so difficult to retrace, slips on the glassy neck of the tube, falls into the pit, struggles against the downward projecting hairs, dives into the water and is drowned—as he deserves!

His carcass is fed upon by the larvæ of other insects in waiting, and no doubt the choicest bits are assimilated into the plant, forming the incentive agents, the sinews of war for the destruction of all of his kind.

The San Jose Fruit Packing Company.

EDITORS PRESS:—The above company, whose works are located on the corner of Fifth and Julian streets, San Jose, are making extensive improvements to meet the demands of their constantly increasing business.

In addition to their former workshops and packing rooms, which are being thoroughly overhauled and remodeled in view of securing greater convenience and economy of labor, they are building a large and substantial frame house, 137 feet long by 40 feet wide, and two stories high. The upper story of this new building is to be used as a tin shop, to manufacture all the cans which may be wanted in their extensive business, a complete outfit of new and the most approved tools and machinery having been procured for this purpose.

The large space of the lower story of this building will be used for the various purposes of receiving, selecting, picking and packing fruits, vegetables, etc. The many and important changes made in machinery, fixtures, and the locations of the different work rooms now being made have been suggested by the experience of the last few years' operations. And it seems to be the purpose and aim of this company to spare no pains or expense in securing the very best possible arrangements and appliances in their business, in order not only to sustain their already enviable reputation, but to extend and increase it with every year's business operations. The well known reputation of the fruit of Santa Clara valley as to variety, beauty and excellence of flavor, and the reputation this company have for only packing the very best of all kinds, the neat and attractive style of their cans and packages and general straightforward way of fair dealing with everybody, has already obtained for them a wide field for their business operations. Not only do they ship liberally to many of the important mining towns and cities of the interior country between the Sierras and the Rocky mountains, but their trade has extended Eastward from Denver, Cheyenne and Omaha to St. Louis, Chicago, Minneapolis, Baltimore, Philadelphia, New York, Boston and other Eastern cities.

It should be a source of much satisfaction and congratulation among our fruit growers that our first extensive fruit packing house should be in the hands of men who may be so freely entrusted with the fair reputation of our California fruits.

The gentlemen comprising this corporation, with a capital of $200,000, whose name appears at the head of this article, are all well known citizens of San Jose, and I hope they will pardon the liberty I take in copying their names from their business card:

J. M. Dawson, President; T. Ellard Beans, Treasurer; H. P. Hussey, Secretary; Directors, J. M. Dawson, John Burns, J. Q. A. Ballou, A. E. Pomeroy, A. Lion, T. Ellord Beans, J. Siunnott.

In no former year has there been a better prospect for an abundant crop of fruits of all kinds than the present, and this company will soon be in the market as purchasers for a large amount of the different kinds in their season to make up a full line of their goods. During the packing season they will also give employment to a large number of hands, say from 150 to 250, in the various departments of their business. They expect and have made arrangements this season to put up at least 500,000 cans.

In addition to their extensive factory buildings, they have on the same grounds a large and substantial fire-proof brick store-house, being 115 feet by 43 feet, capable of holding an immense amount of their goods.

There is yet another noteworthy feature of the operations of this company deserving of consideration. They set out at first with the determination not only to use the best fruits and vegetables, but in all their work of sorting, picking, preparing and canning, to make a specialty of the most scrupulous tidiness and cleanliness in every department; and so very strict are they in all these operations, where fruit or vegetables are to be handled, that they never employ Chinamen for any of this work, but it is all done by white help, mostly women, girls and boys, and in such order and neatness as might well satisfy the most delicate and fastidious customers. Only a few Chinamen are employed in the tin shops and for handling boxes and packages about the establishment, and the number even there employed is being gradually reduced, and white help substituted.

G. W. M.

Santa Clara, April 19th, 1876.

The Silkworm Egg Trade at an End.

EDITORS PRESS:—The time having come to raise silkworms anew, I have no doubt that a few words on this once promising industry will be read with interest by that class of your readers who have planted mulberry trees in the expectation of deriving from them a nice little income, especially in the manufacturing of eggs for the European market.

Ever since I have been corresponding with the PRESS, that is, for the last four years, I have constantly urged your readers not to rely on this egg trade if they wished to found the silk business in this State on a solid and durable basis, for I was satisfied by what I knew of the condition of silk culture in other countries and the progress of pebrine all over the world, that this egg trade would be abruptly brought to an end. At the same time it might have temporarily paid, and as far as I was concerned I could not tell whether in our beautiful Sierra we were able to raise a healthy seed, vigorous enough to resist in those infected countries the ravages of pebrine. Of course I had to try, but I soon found out that the cursed epidemy existed in our midst as well as elsewhere; next, I was informed by friends in New South Wales that it had just broken out in Australia, and I intimated in letters to the *Moniteur des Soies*, of Lyons, France, that, very likely, pebrine would at last find its way to Japan, that lucky land which for the last 15 years had been able to furnish every other silk growing country with a healthy seed. In previous letters to the RURAL PRESS I did promise you to tell your readers the whole truth about my experiences and the general condition of silk culture; and though I expected, through our splendid mountain climate and a clear understanding of the business, to succeed where others had failed, I had to admit that I was neither lucky nor smart enough to succeed as well as I had a right to expect. Now, what good had it done to keep the thing secret but to deceive and disappoint people, particularly those that had an entire confidence in both my honesty of purpose and ability? It has been said that I have been writing to the RURAL PRESS "against" silk culture; it is not so. True, my late communications to your paper have been rather discouraging and unfavorable to that industry and its progress on this coast. But I was not deterred from telling the truth for a fear of hurting my pride or cutting off the sale of the nice varieties of mulberry trees that I had introduced in this country. In this wise I have deceived and disappointed nobody, and more than ever I advise your readers not to raise silkworms in the expectation of finding a market for their eggs. Hear now the reports from abroad, and if any people are cherishing yet the hope of making a fortune by the sale of silkworm seed, this last delusion of theirs must be regarded as gone, gone forever this time.

Until last year, France, Italy and the other silk growing countries bordering the Mediterranean sea, imported from Japan the usual quantity of cartoons, say 1,500,000, at two to three dollars a cartoon. But lo! for the first time since 15 years, the Japanese seed partially failed, showing decided symptoms of pebrine, and right on the heels of this failure came the report that pebrine had unmistakably broken out in Japan. The Japanese, justly alarmed at the prospect of losing this lucrative trade, the greatest net revenue of Japan, denied the truth of the report, though they at the same time admitted the existence of a certain malady to which they gave a name of their own. But the report being partially confirmed by the failure or bad working for the first time of Japanese seed, the aforesaid silk growing countries bought from Japan this winter only 700,000 cartoons, at a reduced price, too; and the prospect is that hardly any will be bought at all next winter for the campaign of 1877. On the other hand silk growers have been of late more successful with seed manufactured by them through the selection or Pasteur's system. In fact, this silkworm seed trade is regarded as having at last come to an end. Such are the facts which any of your readers interested therein will do well to ponder on. So this once important trade has ended, but not without bringing forth unexpected and strange results; for it served as a stimulus to people all over the world to plant mulberry trees in the hope of being able to furnish Europe with this

much sought for merchandise, healthy silkworm eggs. South America, California and Australia were foremost among all in their efforts of getting hold of this paying trade, and though they did not succeed in manufactnring a seed vigorous enough to supplant that of Japan, they still have founded in their respective lands an industry, silkworm raising, which otherwise they might have not thought about for some time. And those enterprising *grainеurs* (seed dealers) in scouring the whole world for a healthy race of silkworms, opened to commerce and social intercourse those semi-wild countries of Central Asia, stimulated everywhere they went to the raising of silkworms, and helped considerably in putting in close contact the ancient civilizations of Asia with the more modern one of Europe.

FELIX GILLET.

Nevada City, March 10th, 1876.

How to Exterminate Gophers.

EDITORS PRESS:—The question of exterminating gophers has already been noticed and discussed through your columns, as have all other questions pertaining to the farming interest. But as the ravages of this little animal are becoming very serious, and likely to become more so in certain parts of this State, it might be well to discuss it still further, to the end that all the light possible might be thrown on the subject, for the benefit of those who are interested in their destruction.

The gopher is so secluded in his habits that it is very difficult to make war on him, and most of people have become discouraged and given up the idea of ever being able to cope with him. At first I felt a little discouraged myself, but after a good deal of patient watching and a great many trials in different ways, I find that I can kill them with poison as easily as squirrels, and I believe easier. I find where the gopher has been at work last, and remove the loose earth from the surface, to find where it has come from; I then dig down until I find the main runway, generally from six to 12 inches. The runway being found, I clean out with my hand any dirt that may have dropped into it, and place about one half-teaspoonful of granulated exterminator therein. I then seal up the whole with a lump of earth or sod, being careful that none drops in on the poison, and put the dirt back as it was before. The gopher will soon return to his labor, being very industrious, and will never fail to pick up every grain of the wheat. What he can't eat he puts in his pouch and carries home, and should he be able to reach there before the poison acts, his friends get the benefit of his economy.

It is useless to put poison in holes left open by the gopher when at work, as they shove the poison out with the dirt, and it becomes lost. If a hole is opened and poison placed therein it should be closed up again, as the gopher, seeing the light and feeling the air where it was not intended, goes to work to remedy that evil by shoving a load of dirt against the opening, thereby covering up or throwing out the grains. A few trials of the above directions will convince any person that there is not much trouble after all in killing gophers.

Another peculiarity of this pest is, that where a great many of them are poisoned the rest will leave, whether it is that the smell of the dead ones becomes offensive, or their instinct teaches them that there is something unhealthy in the location, I do not know, but it's certain they will leave. This is a very good thing for those who want to rid themselves of gophers, for if their neighbors are not inclined to poison their fields become a place of retreat for the refugees.

I believe that if some of our enterprising venders of squirrel and gopher poison would get up some reliable directions for destroying those pests, and keep it constantly in print before the people, they would not only confer a great favor on the public but also add to the prosperity of their business. H.

Yuba City, Cal.

STOCK BREEDERS.

The Difference Between Grades and Natives.

We recently gave an account of 112 graded steers sold by Mr. Reuben Broaddus, of Varna, Ills., 12 of which averaged 2,033 pounds, and the remaining 100 head, 1,720 pounds. They were delivered to Mr. Samuel Holderman, of Morris, Ills., on a contract made some time before, at six cents. Mr. Holderman wrote us that he paid one to one and one-half cents more per pound for them than he could afford to pay for natives, and as the whole lot aggregated 196,396 pounds, Mr. Broaddus received about $29.46 more for them (one and one-half cents) than he would have received for natives, even if they had weighed the same. These steers were all three years old, and bringing in Mr. Broaddus six cents per pound, he received $3,507 for each year they were kept. As natives would have been kept four years, or one year longer, to have been made fully ripe, he saved one year's keep, or $3,507, and they sold for $2,946 more money than the same number of pounds of *choice* natives would have brought, and the two items amount to $6,453. The natives, kept until four years and forced, would still have weighed fully 100 pounds less than these grades, which, at five and one-half cents (we will see where this price comes from shortly) would have made an additional difference of $5.50 per steer, and on the 112 head, therefore, $616. Adding this to the $6,453, we have $7,069, or in round numbers $7,000 as the difference in Mr. Broaddus' favor on 112 grade steers over what he would have made had they been choice natives. This difference amounts to something over $61.50 on each steer, which is almost as much as the native steer will sell for. We take it for granted that no one will deny that the steers were quite profitable to Mr. Broaddus.

Sale of the Beef.

Mr. Holderman brought the steers to Chicago, and they sold in open market at six and three-fourth cents per pound, and on the same day, and under precisely the same influence, the choicest natives were only worth five and one-half cents per pound, and native steers of average excellence but four and one-half cents. Now, let us go over the figures once more. The whole lot weighed 196,396 pounds, and, at six and three-fourth cents, brought $13,257, which on these three year-olds, was $4,419 per year of their keep. *Choice* native steers would have weighed 100 pounds less per head, and have brought $10,186—a difference of $3,071 in the price; and, as the natives would have been kept one year longer, we add this difference in the price to the price ($4,419) made by the grades for each year of their keep, which makes the difference as they stood in the market of $7,490. Mr. Holderman, paying six cents for the steers and selling them at six and three-fourths, made on the lot about $1,500, which certainly paid him.

Another Case.

On New Year's day Mr. Broaddus delivered to Mr. Holderman 70 more steers by the same contract, and at the same price. These grades were three years old (in the lot were two two-year-olds of Mr. Broaddus' own raising, averaging 1,750 pounds), and the whole lot averaged 1,732 pounds. We have no report showing what day they were sold in the market, and the relative price of grades and choice natives on that day. This makes 182 grade steers sold off that farm within the space of 60 days, at six cents per pound, bringing $19,058.

A Contrast.

Now, it so happened that Mr. Broaddus raised one native steer along with these, and any jury of farmers will readily concede that it was a good one; so we have a means of testing what can be done with the natives on precisely the same or better treatment than that these grades received. Concerning this native steer, Mr. Broaddus writes:

To assist you in comparing the relative merits of grades and natives, I will give you my experience in feeding a native steer along with these grades, about which I have been writing. I had one native steer. I thought, when he was two years old, that he was quite good for a native. I fed him just as I did my grades, and when I delivered my stock to Mr. Holderman this native was over four years old—*that is, one year older than the grades*—and he weighed 1,640 pounds. I certainly did my best with him.

Now, here we have it. Mr. Broaddus thought him a good one at two years old (but when he gets a *grade* that he considers a *good one* he makes him weigh 1,750 pounds at two years old), and after two years more he brings this native up to 1,640 pounds. He was an exceptionally good feeder for a native, we take it, and yet with *two years' more keep*, he weighed about *one hundred pounds less.*

Conclusions.

We already have Mr. Holderman's statement that the man who buys from the farmer can afford to pay about one and one-half cents more for grades than for *choice* natives, and the day he sold the 112 head in the market there was a difference of one and one-quarter cents, which shows that the estimate of one and one-half cents is not far out of the way. Then, if he can afford to pay at the farm six cents for a grade, he can only afford to pay four and one-half cents for a choice native. Now, let us suppose that one of Mr. Broaddus' neighbors raises natives, and gets the extra ones that he can bring up to 1,640 pounds, and turns off every four years 182 of them. If market prices remained where they are, this neighbor, in 12 years, will have turned off three lots of steers, which will have brought him in the aggregate $40,294.80, or for each of the 12 years, $3,357.90.

Mr. Broaddus, in the meantime raising grades which, at three years, average 1,732 pounds and sell for six cents per pound, will have turned off four lots in 12 years, bringing him $75,625.26, or $6,304.38 per year for each of the 12 years. In other words, Mr. Broaddus, by keeping grades, and only the same number of head at a time, would only lack $411.42 per year of having an income double that of his neighbor keeping natives. And the figures are still farther instructive, for Mr. Broaddus' neighbor, in the 12 years, will have turned off 546 head of steers, and made $35,358 less money than Mr. Broaddus. It is plain, therefore, that it would require nearly $65 per head on his 546 steers to bring his income up to that of Mr. Broaddus, who keeps grades.

Such is the difference which earlier maturity, greater weight in one year's less time, and the increased price consequent upon the superior quality, makes in the profits of raising grades over natives.

With all this difference resulting from the use of a thoroughbred bull, it seems strange that there should be any farmer too poor to buy a thoroughbred bull. The majority of them are in fact too poor to be without one.—*Live Stock Journal.*

SHEEP AND WOOL.

"Lower California Wool."

The San Diego *Union* denies the statement of San Francisco papers that sheep owned in Mexico are driven over the line to be sheared so as to avoid payment of the duty on wool. The *Union* says the whole range of country along the border does not contain 100,000 sheep, and of these not 20,000 are owned in Mexico. Nearly all the sheep in that territory were driven in from San Diego, San Bernardino, Los Angeles and Ventura counties. There were nearly twice as many sheep there a year ago as there are now, owing to the order of the Treasury Department imposing the heavy duty on Lower California wool. This order caused owners to drive their sheep back. The *Union* says:

"No permit is ever granted to take sheep across the line into Lower California, save upon the report of an Inspector who sees and counts the sheep personally at the place of crossing, and the permit is for the number so counted The line is regularly patrolled by Inspectors resident upon it, whose duty it is to maintain a constant watch. Moreover, the points of crossing are few and well known, and no evasion of the law could go on unreported. There is no inducement to smuggle such a bulky article as wool, produced in such limited quantity as in the Lower California frontier, while the price is exactly the same as that of our own country product—namely, 8 to 12 and 14 cents per pound."

The *Union* closes its article as follows: "The fact is, there is practically no such thing as 'Lower California wool;' the clip is really American, from American sheep pastured on the other side of the line. What Southern California wool-growers need, and what the interests of this section of the State require at the hands of Congress, is the enactment of a law wholly removing the tariff on wool sheared in Lower California. Then our sheep owners could fully avail themselves of the fine ranges in that section, the use of which becomes more and more necessary as the lands of the counties of Southern California are filled up with population and brought under cultivation. If this is not done, the sheep men must eventually take their flocks far away to Arizona or New Mexico, thus cutting off one of our most valuable interests. If the wool interest of Southern California is worth fostering and preserving, a strong and united effort should be made to secure Congressional relief from the existing restrictions relative to Lower California."

Packing Wool.

Henry Stewart, in his *Shepherd's Manual*, just published by Orange Judd & Co., thus tells how this work should be done, and then shows the advance in value that arises from doing it well: The manner in which the fleeces are made up has no little influence upon the price at which the wool will sell. Wool buyers prefer to have the fleece loose, light to handle and elastic; and tied up so that it can be easily opened if need be. The method of packing in Ohio and Western Pennsylvania is to lay the fleece upon a table, turn in the head and tail, then the flanks, and roll it up in a neat roll, tying it with a string at each end. Sometimes the fleece is tied with one more string across the ends, but this is rarely necessary, excepting when the wool is very short. A fleece thus tied is light, easily handled, shows the quality of the wool and can be felt all through. The effect of the manner of putting up the fleece is seen in the following quotations taken from the wool market report of Coates Bros., Philadelphia, July 1st, 1875:

Ohio, Pennsylvania and West Virginia fleece....50@52c
New York, Michigan and Wisconsin fleece, XX...46@48c
Illinois, Iowa and Missouri fleece, XX.....45@47c

The difference of four to five cents per pound is the value of the extra care in making up the fleeces. The difference is even greater than this, for New York, Michigan and Wisconsin wools of better quality than some Ohio wools, are bought at the regular rates quoted, simply because the Ohio fleeces come to market in better shape. This is no unreasonable distinction, as will be seen when the manner of sorting wool is explained further on.

Nothing should be tied up in the fleece, nor should coarse twine no too much twine be used. All tags and waste wool should be scrupulously kept out of the fleece, as it should not only look good, but should be good. This observing of little things is one of the ways in which wool growing is made a profitable business. Tag locks and dirty wool should be washed in a tub with soft soap and cold water and sold by itself.

When the grower ships his wool to a distant market, he necessarily packs the fleeces in bales. The bale should be solidly packed both for economy in freight, which in light bulky articles is charged according to bulk and not by weight, and for the better condition of the fleeces on their arrival at their destination. A convenient method of baling the fleeces is to hang the sack from a trapdoor in the wool loft. The fleeces are handed or thrown to the packer, who places them in the sack, pressing them down close with his bare feet, and, as he reaches the top, with his knees; a handful of tags is put in each corner of the sack and tied tightly to make a handle by which the package can be hauled about in its transportation to market. When filled, the bale should be plainly marked with the exact weight, tare and net weight, upon one of its sides.

BEES.

Salicylic Acid for Foul Brood.

EDITORS PRESS:—A short time ago I sent you an article on salicylic acid as a cure for foul brood. I have since then received a long report on the subject, which was read before the National beekeepers' society, at their meeting, held at Strasburg. The author of the report is Mr. Hilbert, a well known German apiarian, who has been so successful in the feeding of milk and eggs to bees to stimulate breeding. As this report gives a more detailed description of the manner of applying the acid, I have condensed it to the narrowest limits, and herewith give the same for the benefit of those that wish to try the remedy. Proceed as follows: Dissolve the acid in eight times its quantity of alcohol. If more alcohol were used it might prove too strong for the unsealed brood; if less, the acid would flake upon being mixed with water.

For all purposes, except the disinfection of the sealed cells, use but 32 drops of the alcoholic solution to an ounce of water. The water should be about 65 deg. Fah; when less than 60 deg., the acid will flake. It should not be too warm, on account of the unsealed brood. For the disinfection of the brood, comb, frames, etc., the best instrument is an atomizer, with which be sure to sprinkle all parts. After the hive has been disinfected, hang in the brood as fast as disinfected, to keep it warm; remove all surplus honey (after disinfection) and reduce the hive to its smallest limits.

The sealed foul broody cells must be treated differently from the rest of the brood. For them Mr. H. uses a solution of equal parts of warm water and the alcoholic solution. Use a piece of wood, of the shape and size of a match; dip this in the above solution and pierce the sealed cells to the bottom, removing if possible the decaying matter and immersing the wood anew for each cell. Every other day feed about one-third pint of honey to each hive, to which add from 30 to 50 drops of the alcoholic solution, according to the size of the swarm. An application of the acid should be made every week, if not oftener. From five to six applications will be necessary for the complete cure of the hive. The constant exposure to the foul vapors of the hive proves deleterious to the queen and the bees generally. And as the nurse bees, that carry off the decaying matter and at the same time feed the brood, are likely to communicate the poison or become affected thereby, it is well to aid them by the addition of young bees from healthy hives. It sometimes happens that after all these directions have been fully observed, foul brood will continue to make its appearance. In such cases it may be safely inferred that the ovaries of the queen have become infected. In 25 hives treated by Hilbert, three such queens were found. They can best be tested in small hives with clean comb and healthy bees. Mr. H. sums up the matter in the following words: "The absolute cure of foul brood may be effected by the proper application of salicylic acid, by the addition of healthy nurse bees, and finally by a change of queens, if necessary."

By the same method, Count Kolowrat, of Hungary, has cured 65 stands. One ounce of the acid will generally cure from five to seven hives. JOHN P. BRUCK.

Los Angeles, April 7th, 1876.

POULTRY YARD.

Sore Heads.

EDITORS PRESS:—Mr. Eyre's professional experiences and prescriptions in the poultry line are invalnable to us tyros in the business. But as I never failed to learn something from the most uncultured, I venture to give my experience in the treatment of sore heads. Our farmers leave the care of the poultry to the "women folks," and if we ask them to use the surgical knife and spare our nerves, they prescribe instead to "cut off the head, or "wring the neck," so we must use the knife or lose our labor, and often our pet chickens. My first case, in 1872, was reported in the PRESS. Since then I have treated from six to a dozen each season, with perfect success, not so much as a scar remaining to tell the story.

In the first case I injected nitrate of silver immediately after removing the cheesy tumor. But subsequently having a very bad case in a half grown pullet, that seemed hardly worth the trouble—she having lost appetite and flesh—I simply removed the tumor, making a very long, wide cut to insure the free escape of pus, and let her go. To my surprise she began mending at once and made a very fine hen. From that time on I have relied entirely upon the knife, never using it until the swelling became pointed, or gave evidence of being ripe, as when the substance is mostly a bloody secretion. I have had several cases where the eye was so involved as to cause blindness, and in removing the tumor I supposed the eye was destroyed, but in each case the eye recovered perfectly. In two cases of swellings between the toes, I found the same cheesy substance, and I effected a cure by the same treatment.

C. I. H. NICHOLS.

Pomo, April 16th, 1876.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

Address Before Antioch Grange.

The following stirring address before Antioch Grange, by Worthy Lecturer Dean, is transmitted to us for publication:

We have all realized the necessity of a medium through which we, as a community, could be heard, through which we could make our opinions felt and respected, through which we could utilize our co-operative ideas and work unitedly for the common weal. The Grange organization affords us such a medium. It partakes of just enough of the secret character to confine our discussions and business arrangements to ourselves, without intrusive interference from the outside world.

It permits free scope to the expression of opinions, on educational, moral and material subjects, excepting only those of a partisan or sectarian character; it encourages sociability, offering a common plane upon which we meet without distinction of wealth or education, where the conversational formalities are laid aside and all are made to feel at home. It is an educator of the highest order; it develops the mind, stimulates the intellect, encourages thought; in all its tendencies it maintains an eye single to our welfare.

Can we then, as a class, I ask, dispense with this valuable auxiliary? Can we afford, in view of the tendencies of the age to co-operation and concentration, to be without organization? Do we realize its nature and importance? These are questions submitted for your consideration and serious thought, and which can only receive an affirmative answer. If there are doubters, if there are those among us who say "the Grange has never done me any good," he either expresses an ignorant opinion or has failed to avail himself of the advantages offered by the organization. If he will but look out and away from the narrow hedge in which his life is set, into the great world with its multitudes of people, for whose bread and staff of life he daily toils, the first thing that attracts his attention will be the great cities with their "cloud capped towers and gorgeous palaces," evidences of superior wealth which confront him on all sides; he will also see the workshops of labor, wherein the toiling millions earn their daily pittance, and crouching in their shadows the grim, gaunt skeleton of want. In these strange contrasts between poverty and wealth, if he will but examine closely he will find there exists a conflict that is being waged with the energy of desperation on both sides; it has continued since civilization began, its track can be traced by mobs and bread riots, blood stained and irrepressible, and will never be fought to a solution so long as capital and labor exist.

Weary, perhaps, of gazing upon this unattractive spectacle, the farmer (and Granger he ought to be,) courts the more peaceful surroundings of his own home, where, under the shadow of his vine and fig tree, he can ponder the perplexing theme as to how he may become instrumental in harmonizing these discordant elements. His crude ideas of political economy, or the subtle theories of great thinkers, will prove unsatisfactory—he will only become confused and say, as thousands of others before him have said, "let the conflict wage—time and a proper understanding of the relations of either will harmonize their differences." But the solution of this problem is not the question for the Granger to consider. There is a deeper one of cause at the bottom and underlying the whole subject. What is capital? How does it accumulate? How are these vast aggregations piled up in such huge proportions as to become a dreaded and overshadowing power in the land? Is it tyranical and oppressive? Cannot labor always exact its reward? Capitalists must live, and on labor, too; if it does not choose to perform the labor they must pay for it. If they do not want to pull off their coats and enter the harvest field, they must buy my wheat. Then how does this question affect my interest? If I cannot suppress this conflict how can I aid and abet labor and profit from the necessities of capital?

Here the farmer and producer, through his interest, is brought into direct antagonism with capital and into full sympathy with labor. He becomes unintentionally a party to the strife, and it does not take him long to determine which side he will be on. He cannot assume a neutral position and say, "I'll none of it; let them fight; they must both feed from my acres." This position is untenable, for the farmer must have manufactured articles—clothes for himself and family and the thousand and one articles for domestic use. He must therefore sell his products and take from capital the sum required for this purpose and as much more as he can get. To a certain extent, then, we are dependent upon capital—that is, we are not thoroughly independent, and while we join with labor to exact its full reward it would be the blindest policy in us to fix the rate so high as to starve capital and "kill the goose that lays the golden egg." A clear appreciation of our mutual dependency, its exact extent and limit; to stop squarely at the mark where subserviency begins, to be intelligent enough to ward off the incursive attacks of money and protect ourselves; to enact the necessary barriers against aggressive aggregations and monopolies, formed, as they always are, for the express purpose of oppression and in the interest of capital—is the happy medium which we hope to attain.

The Strength of Co-operation.

How best to do this is the question for us to consider. It is a principle in natural philosophy that equally attractive or repellant forces neutralize each other. Following out this idea, if we would neutralize the power of wealth we must oppose it with an equal power. We have our remedy; it is patent, it is practicable and immediate. We must bank up against their aggressive millions of capital the bulwark of co-operation—co-operation in buying, co-operation in selling and marketing our products, co-operation for all and every purpose wherever and whenever we may have a common enemy.

It is the leading spirit of the times. Already we see the artisans, builders, brick masons, stone cutters, shoemakers, printers, and mechanics of all trades rallying under the flags of their various trades unions, and all combined under a general head in a powerful national secret organization. These different unions are protective and exacting in their character; they do not permit a member to work for less than a stated sum per day, under penalty of expulsion and the loss of his job. Members have a direct interest, too, in maintaining the fixed rates of the union, for it equalizes and enlarges their pay. The stevedores dictate with supreme authority who shall load and what you shall pay for loading your vessel.

The grocers arrange among themselves and determine in the halls of the union the rates of profit you shall pay on their merchandise. The commission merchants meet on 'Change every day, and within closed doors and in secret session, fix the market price on your products.

The speculator is aware of your necessities, that you must have money to pay harvest expenses, closes his vaults, locks up the money in banks, and creates hard times to force you to sell your wheat at a sacrifice. The sack dealers and manufacturers combine to put up the price of sacks and bring an extra million from your pockets. Thus on all sides we meet with imposition, exaction and extortion, practiced upon the hard working farmer, that in many instances is but another name for downright robbery. We are the goose that every Jew or Gentile seems privileged to pluck, and like geese we only "squawk."

In view of these facts, fellow Patrons, while we are being surrounded by a perfect cordon of co-operative institutions put forward in the interest of the laboring classes, when capital is banding itself into gigantic corporations and monopolies are rearing their hydra heads and fastening their greedy clutch upon every productive industry, can we, the farmers and agriculturists, afford to be supinely idle and become their easy prey without an honest effort at protection? No!

The means are at our disposal, we do not lack the intelligence, and the Grange organization presents unequalled facilities for their consummation.

If we have not attained success heretofore, it is because of errors committed—the mistake of leaping to grand results at a single bound instead of patient, painstaking plodding that is in better keeping with the avocation we follow. We entered enthusiastically into the Grange movement—excited, uncertain of its real or attainable objects—expecting everything; and because of disappointment have become lukewarm and apathetic.

The reaction has not been fatal. We are slowly convalescing, and I trust entering a new and prosperous era, with a better understanding of the situation, a clearer conception of the difficulties to encounter and a more intelligent application of the remedy, which, coupled with a quiet energy and a determination to succeed, must eventually make us masters where now we are but servants, and place the Grange movement at the head of the list as one of the grandest conceptions of the 19th century.

A Beautiful Ceremony.—Dr. D. K. Rule, who passed away Wednesday about 1 A. M., was buried by his Brothers and Sisters of St. Helena Grange, assisted by some representing Yountville and Napa. The ceremony was very impressive, and was witnessed by a very large assembly—in fact, the largest turn out that our town has ever witnessed on a like occasion. The body was interred with the impressive ceremony of the Grange, a very beautiful feature of which was the casting of white roses and evergreens on the coffin by each member. The Doctor leaves as few enemies and more friends than are generally allotted to man.—*Cor. St. Helena Star.*

O. H. Kelley, Secretary of the National Grange, has formed a copartnership with Chas. G. Otis, of New York city, under the firm name of Kelley & Otis. They have the control of selling and settling a large tract of land in Florida.

A Pleasant Gathering of Patrons.

The announcement at the recent meeting of the Grangers' Business Association that a Grange meeting would be held that evening in Red Men's hall, was sufficient to assemble there all the Patrons sojourning in this city. It was highly gratifying to see so large an attendance of brothers and sisters of the Order from various parts of the State. At 8 o'clock, the hall being full, the meeting was called to order by Worthy Master J. V. Webster, Bros. Lewelling and Thompson were appointed Overseer and Lecturer, while Sister Blanchar filled the Chaplain's station. After ascertaining that all present were "correct," speeches being in order, Bros. Thompson, Carrington, Jones, Wolf and others addressed the meeting, as did also Sister Blanchar, whose remarks found an echo in the hearts of all present, and were much applauded.

The subject of organizing a Subordinate Grange in San Francisco was discussed, as the Worthy Master wished to obtain an expression of the opinions of the Patrons from the interior as to the advisability of such action. A resolution reciting that the best interests of the Order required that a Grange be organized in this city for instruction in the work of the Order, and to promote pleasant intercourse with Patrons visiting the city, was adopted by a unanimous and rising vote.

Such meetings as this are productive of much good, and all present wished that they might be holden more often.

At 11:30 P. M., the meeting was reluctantly adjourned. M.

The Grangers' Business Association.

At a meeting of the stockholders of the Grangers' Business Association, held in the city of San Francisco, April 19th, 1876, at which the Business Manager and Director submitted reports showing the Business Association to be in a flourishing condition, and satisfactory to the large number of stockholders present, the following named persons were elected Directors for the ensuing year:

D. Inman (President), R. C. Haile (Vice-President), Thos. Upton, Amos Adams (Secretary), Thos. Fliut, I. C. Steele, G. P. Kellogg, J. Lewelling (Resident Treasurer). New members: O. Hubbell (Marin county), W. L. Overhiser (Stockton), D. Campbell (San Jose).

At a meeting of the Directors held on the 20th, D. Inman was re-elected President, R. C. Haile, Vice-President, Amos Adams, Secretary, and J. Lewelling, Treasurer.

The President appointed as Auditing Committee, Directors Haile, Steele and Flint.

Finance Committee: Adams, Upton and Kellogg.

The Directors adjourned to meet on May 4th, 1876, at 10 A. M.

Grange Meetings.

We are informed that appointments have been made for joint Grange meetings at Linden, Friday evening May 5th; at Stockton (at which there will be a picnic), May 6th; at Modesto, May 8th; at Merced, May 9th; at which representatives of the various Grange associations will be present. All Grangers are cordially invited to attend.

There will also be meetings held at the Plaza Grange, Colusa county, May 13th; Chico Grange, Butte county, May 15th. Other meetings will be held in Yuba, Sutter, Yolo and Solano counties, of which due notice will be given.

From the Granges.

Sonora Grange.

Editors Press:—Sonora Grange is to hold its first basket picnic on the 13th of May, at the farm of Bro. J. F. Ralph, one mile from Sonora. All interested in the enterprise are cordially invited to attend. Being the first public gathering of the farmer Grangers, it is expected that a full delegation will be present from citizens generally, and also some of the fraternity from sister Granges. From the bountiful supplies provided at the Grange feasts, a full and rich feast may be expected, also music and all the concomitants of a genial, genuine picnic will be on hand. If some of your city scribes or Granger officers could attend, they would meet with a fraternal greeting. This social problem is being worked out by these demonstrations of united effort. The outside world may find out that the Granger movement has something higher and nobler in view than to plot the downfall of any class of citizens pursuing an honest occupation. Civilization has many means of affixing its seal on the life and character of man. This is one of the methods by which a worthy and hitherto neglected class of producers is to be raised up in the scale of being, ennobling a noble occupation, dignifying the humblest toiler of the farm and field, and stamping woman as the equal of man, worthy to share the pleasures of the Grange and the responsibilities of the fireside. Little by little the seeds of fraternal sympathy will germinate, as they are being planted week by week in social intercourse and public picnics, lectures and music. The Granger farmer rejoices in the prospect of an abundant harvest. The genial rains are working wonders in maturing and developing the crops. Even if the heavens weep no more until the winter's floods begin, there will be an abundance for man and beast, with goodly surplus for less favored lands. John Taylor.

Hollister Grange.

Editors Press:—As Hollister Grange has not been represented in the Press for some time, we will assume the responsibility at this time. Perhaps many of our Granger friends in other localities have searched the correspondents' column for notices of installation, harvest feasts, etc., but as we notice that your columns have been pretty well supplied with such news, we desist until a more propitious season. Suffice it to say, our installation and harvest feast were duly recognized and enjoyed by our members. The more solemn occasion of which we wish to speak is the planting of memorial trees on the graves of Sisters Eliza Reed, of Hollister Grange, and Mary A. Stockton, wife of the Master of Badger Flat Grange. Sister Stockton came among us but a short time before her death, and was a stranger to all excepting her husband's family; but the sisters remembered their obligations and extended their sympathy and service during her illness, and when we went to plant a tree on the grave of Sister Reed we deemed it proper and fraternal to remember our neighboring sister in like manner. We have no service marked out for us to use on such an occasion, so we proceeded in conveyances from our hall to the cemetery, and after planting the trees, appropriate songs were sung, while the brothers and sisters strewed the graves with fresh flowers as parting mementoes to the much loved departed sisters, leaving them there to wither and fade, reminding us the more of the frailty and sure decay of life's most cherished hopes.

Some feeling and appropriate remarks were then offered by Bro. Fowler, after which we all went our several ways with sad hearts, not knowing which of the tender ties or happy family circles will next be broken. Our Grange will reach its third anniversary on the 15th of May, and Sister Reed is the only one ont of our membership of 180 who has been called from us by that stern destroyer, Death. We miss her cheerful greeting and happy face from among us, but hope when we are called we may be permitted to strike glad hands with her in the Grange above. As we have not noticed the planting of memorial trees by other Granges, we think Hollister Grange has probably taken the first step in this direction, and hope to hear of others recording similar tokens of remembrance.

"Friend after friend departs!
Who has not lost a friend?
There is no union here of hearts
That finds not here an end."

C. W. P.

Hollister, Cal., April 16th.

Napa May Day Picnic.

Bro. Haskell, Secretary of Napa Grange, extends us an invitation to a May day picnic at Yountville on the first Saturday in May. We return thanks, and would urge all the Patrons in that region not to let the opportunity pass by without being on hand and enjoying a social meeting such as Patrons know how to arrange and to enjoy.

Santa Maria Grange.

Editors Press:—I have not seen anything in the columns of the Rural Press concerning our Grange, not even the election of officers. Our Secretary has certainly neglected his duty in that respect.

I am sorry to say that Santa Maria Grange has been on the eve of dissolution for some time. Our Grange has a membership of over 80 on the books of the Grange, and ont of the 80 members there has only been about 15 that have attended and paid up their dues, the others have absented themselves continuously from the Grange for over six months, and refuse to pay their arrearages. The few faithful have been compelled to keep up the dues to the State Grange of this dead-head class, or surrender their charter.

We have taken steps to expel this dead load element from our Grange, when I think we will be able to go ahead with much more ease. It is very mortifying to me to admit the degenerated state of our Grange, but facts are stubborn things, (and what a great fact our Santa Maria Grange must be then). Santa Maria Grange was the Banner Grange of Southern California for a while. Everybody in reach wanted to belong to it, lawyers, doctors, and all; but alas, how changed; now "there is none so poor to do it reverence." It requires a person of considerable courage to acknowledge that he is a member of Santa Maria Grange. The fact is simply this, some of the members were wolves in sheep's clothing, and some expected as soon as they became members they would immediately begin to make money out of the Grange. Failing in doing that, they became dissatisfied and denounced the Grange as a humbug. The purpose of the first named class was to get all the positions in the Grange and steer the Grange to destruction. Both elements having failed in their purpose, they are setting up a tremendous howl against the Grange, and some of the timid members—that would like to stay with the Grange—are so scared at the din the enemies are making, that they climb up on the fence and imagine they are ont of danger, and no amount of persuasion will induce them to get down

The Order, nearly all over the United States,

has undergone a general purging of this dead-head element; which, in my opinion, is the salvation of the order. M. D. MILLER,
Master S. M. G , No. 52.
Santa Maria, Santa Barbara Co., April 10th.

Dixon Grange.

EDITORS PRESS:—I cannot write you as good news as I would like. Our meetings are rather slimly attended, and often there is a lack of interest shown in them. A "faithful few" seem to be doing the work. The resl kindly come in and pay their dues, but seem to think their presence is worth nothing at our meetiug, whereas, if they would only give us the aid of their presence now and then, we would feel much more encouraged. However, we are not to be discouraged, but will work on, and in the end receive that welcome plaudit, "well done, thou good and faithful servant."

Some of our good sisters recently suggested that we meet frequently at the house of some of our brothers and sisters, take lunch along and have a social time. Accordingly lunch baskets were ready in due time for the hospitable and pleasant residence of Brother and Sister S. G. McMayhan. The day was a very disagreeable one, but those fortunate enongh to get there between showers reported a warm reception and a grand time. Our good hostess forbade the opening of a lunch basket, but led the way to the dining table, loaded witb good things, which her own generous hands had provided.

The pleasant hour under her roof will not be forgotten, and we hope the social parties will continue as pleasant as they have begun.

The grain in this vicinity is looking very prosperous, roads improving, and every one in excellent spirits, looking forward to a bounteous harvest. MATTIE MCBRIDE,
Sec'y Dixon Grange.
Dixon, Solano Co., Cal.

Change of Officers.

EDITORS PRESS:—At your convenience please to change the list of officers of Florin Grange, No. 130, P. of H., as follows: Bro. W. A. Smith, L., in place of J. T. Amos; and J. T. Amos, Sec'y, in place of W. Scholefield.
J. T. AMOS.
Florin, April 25th.

To Subordinate Granges.

A series of meetiugs was inaugnrated at the Lodi meeting, which passed off pleasantly two weeks ago, and was attended by the Master of the State Grange and other leading members of the Order. They are to be held at Danville, Stockton and points soulh of that in the great San Joaquin valley, and to be continued in Colusa and otber counties north. These meetings, it is hoped, will be largely attended, as it is expected much good for the Order will grow out of them, It is at a season of the year when Grangers geuerally are the least busy, and can therefore more readily attend.

I would suggest the propriety of the Granges in Placer, Sutler, Yuba, Yolo and other counties which are easy of access, getting up joint meetings, sendiug notice to this office of the time and place, and efforts will be made to send speakers representing the banking interests, the Graugers' Business Association and the Farmers' Fire Insurance Company. The Grange movement is looking so bright throughout the State, that I cannot too strongly nrge our fellow Patrons to a little extra exertion in this direction, believing that the efforts in which the Grange movement is tending will be crowned with success.
AMOS ADAMS, Sec'y State Grange.

AGRICULTURAL NOTES.

California.

BUTTE.

WAREHOUSE DESTROYED. — *Record*, April 22: Last Saturday evening about six o'clock, the large warehouse at Durham, belonging to Judge Pratt, was totally destroyed by fire. The building contained at the time about $6,000 worth of wool, and between 60 aud 70 tons of hay. We have heard various opinions expressed regarding the origin of the fire. One that it was the result of spontaneous combustion in the wool, and another that the building was set on fire by sparks from the engine on a freight train. We understand that neither the building nor its contents were iusured.

COLUSA.

COYOTE SCALPS.—*Sun*, April 22: By act of the last Legislature the board of supervisors of this county are anthorized to pay $5 each for coyote scalps taken after the passage of the act. Eagles, lions, catamounts, bear, etc., are included in the list, but we do not remember the figure placed on each scalp, and no one has felt interest enough to send a copy of the bill.

EL DORADO.

SUPERIOR RAISINS.—*Republican*, April 20: Several boxes of very superior raisins, the product of Cedar Hill vineyard, near this city, Thos. Hardy, proprietor, have been on exhibition the past two days at the fruit and confectionery store of T. A. Gardner. They consist of Muscatel, Black Malvisia and Sultana Seedless, and we venture to say that no finer specimens were ever put upon exhibition anywhere. Mr. Hardy proposes to send them to the Centennial exposition. After viewing them, no one can donbt onr ability to produce raisins equal to the best imported, if not superior.

FRUIT GROWERS' PETITION.—*Democrat*, April 22: A petition is being circulated among the fruit growers of tbis county, submitting to the railroad company certain grievances asking relief. They ask not for reduction of freight rates but state as follows: "We who produce and ship onr fruit cannot collect the freight from the consnmer, as we must compete with those nearer the market. This, on account of tbe superior quality of our fruit, we can easily do if we can have proper, speedy, aud direct conveyance. What we mean by proper, is ventilated cars, without which experience teaches us we cannot get our fruit to market safely. What we mean by speedy aud direct, is not to lay over at Sacramento or any other way station (thereby causing great loss to us as in the past), and be delivered to our consignee at its destination early in the morning, in time for the markets of that day. As fine fruit is the flower of commodities, it is necessary that it should receive the best care of tbe carrier, in order to give the patient producer the best returns for which long years of expense, care, toil and anxiety eminently entitle him to receive."

KERN.

KILLING TRESPASSING CATTLE.—The Kern county court was engaged all last week in the case of the people vs. E. R. Greene, charged with grand larceny for killing and appropriating trespassing cattle. The owners of the cattle procured four indictments against him. To the apparent astonishment of the prosecution, the defendant admitted to the killing and using, and with the utmost candor helped the prosecution prove their case, which by reason of the difficulty of identifying the animals killed and the ownership, seemed in a fair way to prove fatal to the prosecutors. The defendant boldly stated that he killed the animals, or caused them to be killed by his men, and on one occasion got two strangers, who happened to be there, to assist him. That he killed them because he thought it right to do so, after he had exhausted all means of redress and everything he planted on his land had been destroyed. That he expected the killing of them would be a warning to the owners to take them away. That he killed them in the day. That he hung the hides where everybody could see them. That he saved the ears which had ear-marks and kept tbem with the hides. That he kept an account of the animals killed, their ages and sex, as a means of arriving at tbeir value. That he had killed ten in all, at different times during the past year and a half, and had kept the hides and ears of all. That one was so vicious it chased his men out of tbe field into the house, and was shot by the neighbors several times, and was killed by one of them, after being chased by it to a tree, and while defendant was away. That for eight years he had lost the use of his land by depredations of wild cattle, and had been obliged to keep a horse saddled all night to save what little crop he did. After four hours of deliberation the jury returned a verdict of guilty as charged. The counsel for the defendant immediately gave notice of a motion for a new trial and sentence was deferred till next Friday to give the counsel time to state the grounds of application for a new trial.

LASSEN.

GOOD CROPS.—*Farmer*, April 15: The good prospects for the farmers of Lassen to have good crops was never better than at tbe present time. The abundance of rainfall of the past winter will give an ample supply of water in case the irrigation of crops is necessary, but in geueral grain will be raised this season without irrigation. Grain that was sowed last fall looks splendidly, and no doubt will give a betler yield than spring crops.

LOS ANGELES.

BEEKEEPERS' MEETING.—*Herald*, April 22: The beekeepers' meeting on last Saturday was one of interest from the attendance and animated discussions of various topics pertaining to apiculture. There is evidently an awakening among the beekeepers of Los Angeles county on this subject. A brief but interesting paper was read by Mr. Davidson on tbe relative value of the Italian and German bee. We were presented by the secretary witb a few specimens of comb foundation, the first that it has ever been our good fortune to see. It is made of white wax pressed by machinery so as to closely imitate the foundation of a honeycomb; only the base of the cells are formed, which are ten or twelve times as thick as the bees require, but contain the requisite amount of wax to complete or form the cell. This is softened and drawn out by the bees. No time therefore is lost by tho bees in making wax, which is a great gain in honey. Should this prove a success, as we think it certainly must, it will rank among the most brilliant attainments ever yet achioved in apicnlture. We will give it a trial and report onr success. The society has procnred a small quantity of comb foundation which we understand will be distributed among the members present at the regular meeting in June, notice of which will be given. A picnic meeting will be held at the Los Angeles apiary, in Verdugo canon, May 6

HONEY YIELD.—Mr. Haskell, of Davidson & Haskell's apiary in the Tejunga, extracted 25 pounds of bald sage honey about the middle of this month from one hybrid Italian swarm in three days. This we regard as a very good yield considering the early season wben bees are rearing brood so rapidly. Mr. Davidson informs us that they have already sold nearly one ton of honey from this apiary. These gentlemen are among the most intelligent and enterprising apiarians in our county.

MENDOCINO.

POTTER VALLEY.—EDITORS PRESS: The spriug is the most promising for crops, fruit and feed of any we have had for years. Indeed, the oldest inhabitant remembers no better. The late and frequent showers have given opportunity for plowing and seeding much that was prevented by the heavy and continuous rain of the winter. Stock of all kinds is in good condition, and the wool crop promises to be heavy. —C. I. H. N.

MERCED

SAVE YOUR HAY.—*Express*, April 22: Our attention has been called to the fact that a large amount of hay is likely to be left unmowed on the west side of the San Joaquin river this season. The reason for this we suppose is because there is more hay growing over there this year than will be necessary for home consumption. The reason might be valid nnder some circumstances, but under existing state of things it is not. The farmers of the west side should remember that the bill to create the west side irrigation district became law on the last day of the session of thee Lgislature, and that under its provisions it becomes necessary to begin work on the canal within one year from the passage thereof. The commencement of work on this canal will bring into requisition a number of work animals, all of which have to be fed. Now, unless farmers on that side save hay sufficient to feed tbese animals while the work is going on, it will necessitate the contractors to buy hay from abroad. This would look bad, and work an injury to the reputation of both lands and farmers on the west side. "A word to the wise is sufficient," and we earnestly hope our farmer friends, for whose benefit this article is written, may take the hint, aud acting upon it, save all the hay it is possible for them to mow.

MONTEREY.

FISH.—*Democrat*, April 22: The Monterey pisciculturnl society perfected its organization Thursday night, by electing officers and directors for the ensning year as follows: J. D. Carr, President; H. S. Ball, Vice President; Wm. S. Johnson, Treasurer and J. W. Leigh, Secretary; as Directors—A. C. Bassett, W. V. McGarvey, J. B. Iverson, P. Kilburn and Wm. Vanderhurst. The Directors, who have charge of the business of the society, will "push things."

CATTLE.—Cyrus Jones, of the Avenue ranch, San Jose, recently sold to C. S. Abbott, the dairyman of Monterey county, nine head of thoroughbred Short Horn cattle, seven being bulls, and two heifers. Eight of the bovines went at $300 apiece, and one, a yearling bull, for $1,000.

SAN BERNARDINO.

LOSSES WITH SHEEP.—*Argus*, April 16: Our sheep men have, dnring the past season, had nnusually bad luck. Sheep were taken from this county to Arizona and Southern California, and it was a lucky man who got one-half of his flock back. Add to this the low price of wool and it makes money matters unusually stringent.

SAN LUIS OBISPO.

DAIRY NOTES —*Tribune*, April 22: R. Logan, who lives near Cambria, was in to see us on Wednesday, and reports the dairy interest up the coast as in a most flonrishing condition. He is now milking 77 cows, with a daily make of butter of 90 pounds. Since he commenced milking in December he has shipped 9,500 ponnds. Of course he has not had the present number of cows for this length of time, they having dropped their calves scatteringly since the first of December until the preseut time. Mr. Davidson, an enterprising dairyman in the great up-coast dairy region, living near Cambria, has just returned from the East with a car load of Jersey cattle.

SONOMA.

THE ESTERO CHEESE FACTORY.—Petaluma *Argus*, April 21: We found Mr. Wm. H. White, the proprietor, just on the point of starting to Tomales with a large load of cheese, yet he found time to show us through the establishment. The factory is a two story building, 20x40 feet, witb an L 20x30 feet. On the first floor of the main building is the manufacturiug room, which contains three vats and twelve presses and has a capacity for turning ont 48 cheeses per day. The factory is heated and furnished with boiling water from a steam boiler, and all of the interior arrangements are conveuient and admirably adapted for the business. The factory is abundantly supplied witb water by springs in the hills back of the establishment, there being over 200 feet fall. The storage room is in the second story and is well filled with cheese of different ages. O. P. Sheldon, an experienced cheese maker from New York, is the foreman of tbe establishment, and eight persons find employment. The factory commenced operations on the first of March, and 1,200 cbeeses have been made since that time and half of that number are on hand at present. The milk is purchased from the dairymen in the vicinity, who receive one and one-eighth cents per pound for tho same, the owner of the factory hauling the same to the establishment, and about 8,000 pounds of milk are used every day. We are informed that Mr. White is well satisfied with the result so far of the experiment and intends to enlarge the capacity of the establishment next year.

BUTTER MAKING.—From seven cows M. H. Bemis, who occupies the Robinson ranch in Two Rock valley, made 111 ponnds of butter in 11 days and at the same time fattened two calves. Tbis is equal to nearly two pound butter per day. Who can beat it ?

CARP CULTURE.—*Democrat*, April 22: J. A Poppe, of Sonoma, informs us that the carp on his farm are doing well. Bnt for the accidental giving way of one of his ponds a year ago the supply would now be ample for the demand. In a heavy freshet that year one of the ponds overflowed and was precipitated into the others and some of the fish went down with tbe flood into Sonoma creek. There was one good result from this accident: Sonoma creek was supplied with carp and they have since been seen and caught in the waters of that stream. By good fortune the lower ponds did not give way, though they overflowed, and a number of the fish, which are of a sluggish nature, remained. By the close of this year he will have an abundant supply. Among those who have purchased carp of Mr. Poppe for breeding purposes is Mr. Davis, of Green valley, who took six, Captain Hines, of Napa, took four, Mr. Oliver, of Forestville, half a dozen, Mr. Rogers, of Dry creek valley, Sonoma, twelve, Dr. Scott, of Inyo, four, and others whose names we cannot recall. Mr. Poppe is satisfied that they will do well, and that from the stock of fish he succeeded in bringing from Germany in 1872 the demand will soon be supplied for the whole State of California.

STANISLAUS.

WILD OATS.—*News*, April 21: We notice that the wild oats are getting a big start on some of our farmers in this vicinity. Many fields are already badly mixed. If not checked in many localities it will not be long before the wheat will be choked completely out. A stitch in time, will often, it is said, save nine. In this case a lick at the wild oats in time may save twenty.

SUTTER.

IMPROVEMENTS.—*Banner*, April 22: Having heard so much about the promising appearance of the crops, we determined, a few days ago, to take a short trip into the country and judge for ourselves as to the accuracy of the reports. We are now satisfied that the crop prospect is most promising, and has been rather underrated than otherwise. We also noticed a great many improvements; several large new barns have been built during the past winter and dwelling-houses erected. Michael Kearns is having a neat two-story house erected on his place near Star Bend. A lively time may be looked for in this county this season. There is a large harvest to be gathered, buildings to be put up, and various other improvements to be made, which will cause labor of all kinds to be in good demand.

PROOF FOR THE EAST.—A. N. Stevenson, one of our active Sutter farmers, who has just returned from a 60 days' trip to the other side of the Rocky ridge, has presented us with a fine sample of his prolific farm, consisting of barley, wheat and oats. Mr. Stevenson tells us when he left Ohio only about 10 days ago, the farmers had not begun to sow their grain, and when he informed them that immediately on his return he would send them samples of growing grain three feet in the stalk with the kernel nearly matured, they immediately with one accord became doubtful Thomases. He has his samples ready for shipment.

TUOLUMNE.

THE FRUIT CROP. — EDITORS PRESS: The fruit crop of Tuolumne is safe from the frosts, except almonds and apricots. Loads of winter apples are sold in Stockton for nine cents, realizing a handsome profit to the producer—one load sold for $200. Apples raised in the neighborhood of Sonora and Columbia are of an extra quality and keep well through the winter months. The dried fruit will create a means of wealth this season, which will make up some for last season's failure. The country is now in its bloom and beauly. Flowers deck the hillsides, and roses charm the eye with their variegated hues. The oreole, with his golden plumage, has taken up his summer residence around our rural homes.—JOHN TAYLOR, Mount Pleasant, April 22d, 1876.

Arizona.

DRIVING SHEEP TO ARIZONA.—Cor. Sutler *Banner:* As a grazing country Arizona may be called good, were it not for the scarcity of water. Watering places are very scarce. There have been many thousand head of sheep, as well as other stock, driven to this country during the past two years and many of the most favored locations have been secured. As I know many from California have contemplated coming here with sheep, I feel it my duty to mention a few facts connected with driving sheep over a desert country which intervenes between the settlements of California and the grass fields of Arizona. Not wishing to discourage any one, yet I will state what was told me by those on their way here with sheep. The first person I talked with on the subject told me he had started from Visalia with 2,000 head, and before he reached the Mohave river he lost 1,500, and finally turned the balance back and got into San Bernardino with 500 head. The second band we overtook at Moril springs; the herder told me they had about 2,700 left out of 8,000 which they started with. The third hand we came to had been more fortunate. The owner told me he had lost about one-third of his band. I mention these facts, which are only paralled to many others, for the benefit of those who may attempt to follow suit. One of the chief reasons set forth by these sheep drivers for their losses is, that they started too early in the season, which no doubt is true. But it requires careful management at any season to make it a success.

Home.

There is a land of every land the pride,
Beloved by heaven o'er all the world beside;
Where brighter suns dispense serener light,
And milder moons emparadise the night;
A land of beauty, virtue, valor, truth,
Time-tutored age and love-exalted youth.

The wandering mariner, whose eye explores
The wealthiest isles, the most enchanting shores,
Views not a realm so bountiful and fair,
Nor breathes the spirit of a purer air;
In every clime the magnet of his soul,
Touched by remembrance, trembles to that pole;
For in this land of heaven's peculiar grace,
The heritage of nature's noblest race,
There is a spot of earth supremely blest,
A dearer, sweeter spot than all the rest,
Where man, creation's tyrant, casts aside
His sword and sceptre, pageantry and pride,
While in his softened looks benignly blend
The sire, the son, the husband, brother, friend.
Here woman reigns, the mother, daughter, wife
Strew with fresh flowers the narrow way of life!
In the clear heaven of her delightful eye,
An angel-guard of love and graces lie;
Around her feet domestic duties meet,
And firesides pleasures gambol at her feet.

Where shall that land, that spot of earth be found?
Art thou a man?—a patriot?—look around:
Oh, thou shalt find, howe'er thy footsteps roam,
That land thy country, and that spot thy home.
—*James Montgomery.*

The Golden Mean.

[Written for the PRESS by MRS. M. E. TUTTLE.]

Somewhere, on some fair page, is praised the 'Golden Mean," and every day I live I fain would speak in greater praise of its all-saving power. Truly it should be marked by a golden altar, the middle point between the two extremes.

In every day parlance I call this blessed spot the "stopping place." The children are reminded when in exuberant spirits that they must not forget the stopping place. It is the same in disputes. In fact, I find this advice covers so much in wrong doing, and if heeded would save so much trouble, that I could wish sometimes when I hear an eloquent preacher take his text about the depravity of mankind, that he would adopt the golden mean and try to show us oftener where the sin begins. Dickens makes one of his characters say that "our vices are often only virtues run to extremes." This is largely true of civilized society, and in the minds of many people their virtues take the shape of "hobbies," which they are obliged to ride to the last extremity.

Especially is this so in reference to writers. For instance, if you write an article in which you advocate cold water and graham bread, it will cause astonishment if you are not willing to live upon that alone. We can all remember how Horace Greeley was twitted for eating biscuits at Phebe and Alice Cary's tea table. If you confess a liking for Dame Fashion, you must needs trail your dress a yard behind and wear your hat suspended on your false hair instead of on your head.

"Ah me! what wasted strength, this racing beyond the goal." I am here reminded of many things in which zeal becomes an evil and leads the good astray. In all ideas of refinement we find the danger imminent that we will be led to extremes; particularly in reference to home life and woman's dress. In no class of society do these arbitrary notions fall with such tyrannical force as on the farmer's wife, or the woman obliged to do housework for a living. To be dainty and neat at all times is impossible, to be otherwise is, in many people's eyes, to be a sloven and a nobody; consequently women avoid housework and seize with avidity any employment in which they can appear genteel, often at great sacrifice.

I have sometimes thought that old Dame Nature and Modern Refinement were continually at war. Refinement builds up a barrier that obstructs Nature's laws, and Nature retaliates by ruined health and a torturing conscience. A thousand deceptions are practised daily in the name of refinement. People, women in particular, will almost starve their poor tortured bodies rather than to appear to have coarse appetites; next to themselves they torture their children and then their husbands. Their houses are too nice to live in with any comfort, their clothes are too nice to work in unless it be the most delicate employments. So, instead of aiming to be honest, earnest, truthful mortals, they claim to be very poor specimens of angels; in fact, I am afraid merely a caricature of the genuine article.

In this age and generation we have ladies with pale, refined faces, faultlessly dressed and perfectly clean, who assume the role of angels (according to their imperfect ideas) to perfection. (I mean when visible to the outside world.) Can any one suppose for a moment in a sensible point of view that this model (for whose perfections almost every schoolgirl is striving) was really intended by an all-wise Creator to represent a true woman? Surely not.

Is not the healthy, happy, earnest, busy woman, who is not too ethereal to be useful and not so angelic as to be faultless, much to be preferred for this world and its cares and perplexities, whatever we may choose for the next? The towns and cities have largely gone after the first model; it remains for the country, if we would have a higher type of humanity and a progressive future, to hold fast to the last. The farmers' families of these United States must yet be the salvation of our country. They are the reserve which is yet to fill the depleted ranks of what some please to call the refined class of society.

I have been found guilty of encouraging farmers' wives in doing their duty, regardless of these false, over-wrought ideas, and also of counseling them to be more self-reliant and independent, and I am reminded by a nudge of somebody's elbow of the "responsibility of writers." And I am also aware of the fate awaiting those who step out of the beaten paths. Yet I would teach them, if I could, to use their best judgment and common sense; and to sift well the chaff from the wheat.

I would have them make their houses resting places for tired people; places in which rest would be sweet, because of the cheerfulness and homeliness and comfort of its surroundings. I would have them set their tables to feed hungry people and growing children, rather than dainty, useless parasites.

Over and through all these things should be an all-pervading atmosphere of truth and honesty and purity and frankness, out of which no cringing miscreant could creep to curse society. If we must in the dim, distant future have something to strive for, some ideal to reach and realize, let it be such as this, rather than a fanciful vision which God never intended we should realize here. There is no room for drones in this world, or should not be. If one person does not earn their bread others must be taxed beyond their share to provide it. Pretty and edifying as these people may be, who stand round like Dickens' old Mr. Turveydrop as specimens of deportment, we can spare them very well; especially when we remember that our earnings go to provide bread for their worthless bodies. Let us stand by our principles earnestly, and bring up our children to scorn to eat the bread of dependence and idleness. And if we do what our hands find to do cheerfully and hopefully, when the heat and burden of the day is past we shall reap a great reward. We have not far to look to-day in our country to see the reward of extravagance and idleness. Ruined lives covered with shame and disgrace are seen in many places. Their day was short and full of splendor, but their evening is full of bitterness instead of rest and sweet content.

Gossipy Items from the Old Arm Chair.

[Written for the PRESS by MRS. C. I. H. NICHOLS.]

We are having charming weather, and with the memory of the long season of cloud and storm and general discomfort, everybody and everything is in rollicking good humor. From the birds in the tree-tops to the lambs on the hillside and the children on the greensward,—all are expressing themselves in methods congratulatory, kindly.

Having endured weeks of enforced inactivity—too ill to do but not too ill to estimate and appreciate keenly the need to be doing—your correspondent, though the least demonstrative, is probably the most thoroughly content of all, in that she is able again to slip into the Home Circle, whose racy contributions have weekly brought the cheer of intelligent companions to her storm-blockaded fireside. Hardly one mail in three has been able to cross the swollen streams during the long storms of the season; but that one, if it failed to bring the bulk of our dues, brought the RURAL to break our fast. And I had mentally stored so many good things for your readers, and now I find that memory, like a sieve, has dropped them in the mud or committed them to some surface wave and they are lost in the bottomless sea of desultory thoughts. But what recks it? There is no need to gather the manna of yesterday, since each to-day is fully rationed with fresh food for thought; generously spiced with every needed incentive to useful and honorable activity. There is a word for each to speak which no one else could speak as well or in as good time; and there is a work for each to do that will make himself and the world the richer for its being done. We have only to choose within the limits of our ability; our opportunity we may make, more often than we know, if only we try wisely and persistently. To try is to succeed.

Said my father once, sitting in the circle of his young sons and daughters: "In choosing an occupation, we have to consider our own advantage and the benefit to others. Between two occupations equally honorable and of equal apparent benefit to yourselves, choose that which is most useful and necessary to society and you will have the satisfaction of doing more good and be less subject to disappointment from financial depressions. For when money is hard to be got, men buy necessaries before luxuries—bread before whistles." If we apply this principle in the department of brain labor, and choose our occupation with reference to popular needs, we cultivate a popular appetite for knowledge that is a power of good, and thus, outside of pecuniary and personal considerations, establish and extend social exchanges—bread centers for soul food. The publishers of the RURAL PRESS are doing just this; and its editorial staff come in for a rich share of the honors, where honors are not often "easy." Who of our Home Circle would not sooner dine on a crust till the price of the RURAL is saved, than to deny him or herself the social enjoyment and practical information secured in its perusal?

"I cannot do without the PRESS," is a common expression of its intelligent readers—it has no others. Of course we are all agreed on the utility of the cutting and stitching of its leaves; and those of us who wish to preserve our copies for binding, have noticed with satisfaction the improvement in the register and folding of its pages, which, if not true, lose their ears if not their "heads." Others than Mary Mountain had worn the knees of their patience, occasionally, in refolding it on the floor. By the way, I looked on admiringly while a man of inconvenient proportions for such an exercise refolded a whole year's numbers preparatory to fastening them in an ingenious binder of his own invention, smiling and chatting pleasantly all the while. *He* "wouldn't do without his RURAL." But I beg pardon. As Mary Mountain says, when she has run into a "pocket" that "pane out" well: "This is not at all what I started to say." But so many things will happen to divert or muddle the stream of thought. But this time it was a "heartening" letter from a kinswoman down in Napa county, who had found me through my correspondence in the PRESS. It surely was an inspiration that prompted me, for once, to insert my maiden name. How many dear friends and relatives, striking out in divergent paths, have lost each other by dropping their own names for their husbands'. If a wife could retain her maiden name, like Lucy Stone, without seeming contumacious—but the daughter, both always to drop an honored father's name which her mother has borne, would cling to the names of both where the mother retained her own, and soon the posterity would be burdened with as many patronymics as the German princes and princesses. But to let myself down to minor themes that plead their importance to the palate or the purse, I would ask if Brother Berwick's cows cheerfully yield their rich treasures of creamy milk? or will they hold up and kick the scientific persuader into the condition of Deacon Gorum and his Temptation? Your correspondents are all silent on this point, from which I infer that to kick, or not to kick, is the rule with California cows, but supposing the latter to be the rule or the exception in this case, I have been cherishing the sin of covetousness ever since the introduction of those four Short Horns. Not that I do the milking, but my milk bucket conveys sundry impressions of Widow Higgins stock in the cowyard. It may be a climatic affection, akin to the bucking propensity of the native horse, but it seems a difficult task to train the native and grade California cow to gentle manners.

A BABOON MOTHER.—Mr. Hszely in his African lectures vouches for the following: A woman belonging to a settlement of about 150 souls went one day to gather some wood and left her child on the ground to take care of itself. While the mother was gone a female baboon appeared on the scene, and espying the child, approached and began to fondle it. The child was allowed to partake of the baboon's milk, which deprived it of any appetite for its mother's. When the mother returned she noticed that the child was carefully covered over with leaves and had lost its hunger. This was done for several days before the mother ascertained who performed the unthankful act. When the mother did find out the deed she induced the men of her tribe to lie in wait for the baboon the next day. The animal noticed the men raise their weapons to fire and began to wave her hand, or paw, as if asking them not to kill her, and at the same time pointed to a young one at her breast. But the natives killed her. No sooner had they done so, however, than the male baboon put in his appearance, and, by a loud shout, summoned others of his tribe to the spot. Then in a body the animals attacked the natives and forced them to flee to their huts for safety. One of the baboons tracked them to their settlement and the next day they were visited by about 500 baboons, who assaulted them with cocoanuts and compelled them to run away from their homes. The animals kept a watch over the huts for several days and prevented the natives from returning to their dwellings.

PHYSICAL BENEFIT OF SUNDAY.—Sunday is God's special present to the workingman, and one of his chief objects is to prolong his life, and preserve efficient his working tone. In the vital system it works like a compensation pond; it replenishes the spirit, the elasticity and vigor, which the last six days have drained away, and supplies the force which is to fill the six days succeeding; and in the economy of existence it answers the same purpose as in the economy of income is answered by a savings bank. The frugal man who puts away a pound to-day, and another pound next month, and who in a quiet way is putting by his stated pound from time to time, when he grows old and frail gets not only the same pounds back again, but a good many pounds besides. And the conscientious man, who husbands one day of his existence every week—who, instead of allowing Sunday to be trampled and torn in the hurry and scramble of life, treasures it up—the Lord of Sunday keeps it for him, and in length of days the halo of age gives it back with usury. The savings bank of human existence is the weekly Sunday.

For Farmers' Boys.

Let the boys be encouraged to stick to the farm, unless they are stupids. The most active and energetic boys and young men are needed as tillers of the soil. If a farmer is so unfortunate as to have a crazy-head urchin, of one idea, the chap may do for a minister; but do not attempt to make a farmer of him. In case a boy cannot be induced to love manual labor, let him study law. Lawyers can be molded out of almost any inferior material. If he likes to read twaddle and nonsense more than science, furnish him with a quack's pill-bags, and tell him the wide, wide world is before him. All the powers of the universe cannot make a respectable farmer of him.

For farmers the country wants the most energetic, through-going and wide-awake boys and young men that can be found. Hence, if a boy is blessed with that crowning concomitant which moves the world—brains—let him become a farmer. Brains constitute the great desideratum in agricultural science at the present day. Fifty years years ago muscle was the essential requisite. Fifty years ago a farmer was expected to perform every manual labor of the farm by the exercise of muscular force, while at the present day he needs brains more than muscle to enable him to manage labor-saving tools and implements with skill and efficiency. When the labors of the farm were nearly all performed by the laborious and fatiguing application of human force, farming was irksome drudgery. But now, when teams and steam power respond to the bidding of the tiller of the soil, agriculture is the most agreeable livelihood that one can desire. True, at some seasons of the year farmers are required to labor early and late for several days. Then, again, perhaps for a week, they will have easy times. We do not know, from long experience, that there is no class of citizens that has as easy times as the farmer, provided he is a judicious manager.

Now boys, you are to be the men after a few more years have passed away. Make up your minds deliberately to be farmers. Procure some of the best agricultural books and subscribe for some of the leading agricultural journals, and improve all your leisure hours in acquiring useful information. Let your fixed determination be to rise in the scale of being to the dignity of an intelligent and thorough-going tiller of the soil.

FUN WITH BABIES.—An Augusta correspondent of an Oneida (N. Y.) exchange, tells of the following new and interesting game that can be played with babies: Quite a baby show of first borns of both sexes, born within a few days of each other and aged about three months, came off in this part of the town a few days ago, on the occasion of a social party of young married parents, whose names are withheld on account of the extreme delicacy of the scarcely initiated mothers. While the men were out, the ladies got up a little scene for the general merriment. They placed the wee ones as near together and in a circle as possible, their bodies horizontal, but the tiny feet and limbs elevated and in a close cluster, then covered the faces and clothing effectually from sight. That cluster of wonderfully alike baby extremities at once began to kick and gyrate and mix up in a beautifully grotesque manner, which brought forth screams and peals of feminine laughter. The fathers came in and were invited to select their own from what was in view. One came forward and looked until he was sure, then seized a pair in most active motion and drew from the pile, when lo! he had fastened upon the left member of a boy and the right one of a girl! His success brought down the house again and the show ended, but the memory of this art remains.

STARS IN THE FLAG.—The number and meaning of stars properly placed on our flag are briefly and correctly described by the Philadelphia *Ledger*. It says: "The stars represent States of the Union. There are now 37 States, and the United States flag of to-day bears 37 stars. Colorado may be admitted into the Union this year (the bill for that purpose having passed Congress), and, if she should be admitted prior to July 4th, 1876, another star will be added to the United States flag on that day, making 38 in all, representing the 38 States of the Union at the close of the first century of independence. There is not even a remote probability that any more States will be admitted this year, and, while it might be permissible to put 38 stars on the flag now, in anticipation of the admission of Colorado, there is no excuse for putting on a greater number. Forty stars are put on for supposed convenience of arrangement in cross rows of five stars each; but a much better arrangement can be made with 38 stars, arranged in five rows, of which the central and two outer rows are made up of eight stars and the alternate rows of seven stars. The United States flag of to-day, however, bears only 37 stars."

SCHOOL LIFE.—Early school life should do much to guard against the rudeness and coarseness which turn domestic life into bitterness, and prepare the way for outbreaks of violence. A constant stream of refining influence should flow through the minds of the pupils. Everything favorable in the reading book, in history, or in the incidents of the school room should be utilized for this end. By all means at our command let us seek to refine and elevate. Our aim must be to give a softening tinge to the character, like the mellow bloom on the dark rich clusters of the vine.

The Discipline of Experience.

Practical wisdom is only to be learned in the school of experience. Precepts and instructions are useful so far as they go, but without the discipline of real life they remain of the nature of theory only. The hard facts of existence have to be faced, to give that touch of truth to character which can never he imparted by reading or tuition, hut only by contact with the broad instincts of common men and women.

To be worth anything, character must he capable of standing firm upon its feet in the world of daily work, temptation, and trial, and ahle to bear the wear and tear ot actual life. The life that rejoices in solitnde may be only rejoicing in selfishness. Seclusion may indicate contempt for others, though more usually it means indolence, cowardice or self-indulgence. To every human being belongs his fair share of manful toil and human duty. and it cannot be shirked without loss to the individual himself, as well as to the community to which he belongs.

It is only by mixing in the daily life of the world, and taking part in its affairs, that practical knowledge can ho acquired and wisdom learned. It is there that we find our chief sphere of duty, that we learn the discipline of work, and that we educate ourselves in that patience, diligence and endurance which shape and consolidate the character. There we encounter the difficulties, trials and temptations which, according as we deal with them, give a color to our entire after life—there, too, we hecome subject to the great discipline of suffering, from which we learn to encounter our trials with choerfulness, and to stand erect heneath oven the heaviest burden.

Patchwork.—There is no other method by which little girls can he so easily taught the important and necessary art of needle work, as by this fascinating work. In any household, scraps of materials, left from the garments, will accumulate, and a little care in cutting and basting them in some nice pattern, and then a little time spent in showing them the way to set the stitches, will get them interested in making a cradle quilt for baby, or a nice one for mother's bed; and, in a short time, they will become experts in over-and-over stitch, which is the foundation of all sewing, and a practical knowledge of needle-work by hand is as necessary to tho science of running a sewing machine as if there was no such improvement in existence. Then, patchwork is ornamental and economical; it gathers up the fragments and renders them of service, and a nice quilt, pieced up in a pretty pattern, is a serviceable article and adds much to the good looks of every bed, as well as to its comfort. Stars, bricks, chains and a multitnde of other designs are in use, all pretty and easy, and all alike easy of construction. Charm quilts are a curiosity, but they are not pretty enough to compensate for the great trouble and bother of collecting 9,999 different kinds of prints, and they are no more durable or of more warmth, than one made of 200 or 300 scraps which might otherwise have been used or lost.

The Vest Pockets.—A young man from one of the suburban districts was in one of our tailor shops getting measured for a vest the other afternoon. "Married or unmarried?" queried the merchant, after taking down the number. "Unmarried," said the young man with a blush. "Inside pocket on the left-hand side, then," observed the tailor, as if to himself, making a memorandum to that effect. After a moment's pause, the young man from the suburbs inquired: "What difference does my being married or unmarried make with the inside pocket of the vest?" "Ah, my dear sir," observed the tailor with a bland smile. "all the difference possible, as you must see. Being unmarried, you want the pocket on the left side, so as to bring the young lady's picture next to your heart." "But don't the married man also want his wife's picture next to his heart?" queried the anxious youth. "Possibly there is an instance of that kind," said the tailor, arching his eyebrows, "but I never heard of it."—*Danbury News.*

The Society Definition of a "Lady."—Mr. Hamerton, in the *Portfolio*, thus defines: "A lady is a woman who clearly understands, and consistently practices, the refinements of a highly-civilized existence; and the most real real distinction between a lady and a woman who is not a lady is, that one is more civilized than the other, and more determined to preserve the habits of a high civilization, both in her own person and in all those over whom she has authority. Theso habits are not simply habits of expense; it is cheaper to remain sober than to get drunk, and yet it is more ladylike to be sober. It does not cost more money to speak good English than bad, or to be gentle than rude; yet a lady always, from preference, speaks correctly and has gentle manners."

"What do you know of the character of this man?" was asked of a witness at a police court the other day. "What do I know of his character? I know it to he unbleachable, your honor," he replied with much emphasis.

The Royal college of surgeons, in London, has recently discovered that its charter speaks of "persons," and consequently that women are eligible for the examinations and diplomas of the college.

Young Folks' Column.

Letters to Boys and Girls—No. 12.

[By Jennie E. Jameson.]

"I say, Auntie, you hasn't seen any lady 'round here that likes to tell stories to little folks, has you?" quoth my little nephew, Carl, stumbling over my work in his eagerness to look directly in my face.

At the same time his little sister was pulling my sleeve and saying: "Tum, we'll tell 'twinkle, twinkle,' then you tell a l-o-n-g one."

"I haven't seen any one who would tell stories to children who had such funny looking months. What ails your lips, you rogues?" said I.

"Mine's *stickery*, dreffnl!" said Carl. "'Spect maybe sugar had somefin to do with it. But oh! isn't it good though? What you 'spose they put in it to make it so sweet?"

"Come and have your faces washed," said I, "and I will toll you about a little boy who went into the country and helped his Uncle John make maple sugar."

Never were children more eager to have their faces washed, and in a very short time they were sitting before me, models of good looks and good behavior. As they wore very much interested in the story I think I will tell it to the boys and girls who read the Rural Press, though perhaps not in the same words; so here is the story about

The Boy Who Helped Make Maple Sugar.

Some time ago, in a certain New England city, there lived a little boy named Albert Baker. He was bright and active, always moving about from morning until night. He liked to play out of doors, but could not, very often, because there were so many rough boys in the street; so when there came a letter from Mr. Baker's brother, asking him to let Albert come and stay through "sugaring," he said "Yes" at once, for "Uncle John" lived upon a large farm and had a nice sugar orchard, and he thought the pure sugar and fresh air would do Albert good.

Mrs. Baker did not like the idea of having her "Baby Bertie," as she called him, go away without her, hut she was not able to go with him, so one pleasant morning she kissed him good bye, and before night he was on the old "home farm." His father stayed with him until he felt acquainted with his cousins, then returned to the city and left him.

He had not much chance to be homesick, for everything about him was new and interesting. He was perfectly delighted with the horses, cows, oxen, pigs, sheep, chickens and rabbits. He wished that his father would move into the country and live upon just such a farm. His cousins tried to make him happy and contented. There were James, Olin, Willie, Mary and last, but not least in importance if in size, little Patty, who was about his own age, and, as, he said, "nicer'n any city girl that ever grew."

Bertie was in a great hurry to see the sugar made, so he was very glad to hear his uncle say one morning: "Well, boys, I guess we 'll get out the sap buckets to-day. As for Albert, I suppose he won't care to go to the sugar place until we get some sugar for him to eat.

"Why, yes, Uncle John!" said Bertie. "I want to he the first one there, for I promised my mamma I'd teach her how to make maple sugar as soon as ever I got home."

"Oh, ho!" said his uncle. "Will she tap the trees in the public garden and catch the sugar in silver dishes? You must he sure to select sugar maple trees, as some trees, the fir, for instance, might not make good sugar."

"Well," said Bertie, looking sober, "I don't know where we shall get the sap."

Bertie enjoyed the walk of half a mile upon the crust formed over the snow, and they were soon standing in front of the sugar house, which was built of unplaned boards, hut plenty good enough for the purpose. They unlocked the door and he jumped in. There he saw a great many buckets, about as large as large water pails, piled one above another, a large pile of wood, some very large tubs called "hogsheads," and a—something huilt of bricks. "What's that for?" asked Bertie. "That is an arch," replied his uncle. "Yon see it is all open on the top. Now I will show you what it is for;" so Mr. Baker put a lot of shavings, kindlings and large sticks of wood in the arch; then he took down a large iron pan from the boards overhead, and putting it in the arch he filled it with water which Olin and James had brought from a spring near by. James put a lighted match among the shavings and the fire was soon roaring, cracking and snapping in a way which quite delighted Bertie, for he had never seen such a big wood fire before.

By the time the water was hot the buckets were taken down and set upon the ground, one by one, and Mr. Baker, James and Olin began to wash them. Willie and Bertie watched the fire, threw chips at the squirrels, slid down the hill toward the spring and tried to build a snow man, but his arms would n't stick on good. James said it was because the snow was not moist enough, but they declared he was a contrary old fellow who didn't want any arms, so they knocked him over. It took a long time to wash all the buckets, and Mr. Baker said he should not tap the trees until the next day, so Bertie and Willie went to the house for supper. Now I fear we have almost reached the lower end of our column and shall have to have a continued story, like big folks.

Good Health.

Sleep.

At the London Institution Professor Ferrier, of King's college, delivered a lecture on this subject before a large and deeply interested audience. Dr. Ferrier began by remarking that no living being is capable of continous, unintermittent activity. All work implies waste, and the possibility of continous life and activity necessitates as a postulate the constant repair of the waste of action. During active work the process of waste is in excess of the process of repair; hence, if action is kept up a period comes when the stores of energy are expended. In action, rest or repose follows, during which the waste is repaired or made good, and the duration of this period of inaction will depend on the rate at which the process of repair progresses. During the period of inaction, or sleep of the muscle, the wasted tissues were again restored, the period of rest depending on the degree of exhaustion.

What was true of the muscle was true, *mutalis mutandis*, of the organs of digestion. Some organs seemed to he in a state of constant activity, and therefore might he thought to be exceptions to the general law laid down. This, however, was not so; for in reality these organs, the heart and respiratory organs, were not in a state of constant, hut of rythmical activity, a period of action being followed by a pause or rest. The only difference between the heart and the voluntary muscles was that the periods of action and inaction of the heart were short and followed each other in quick succession.

The brain, the organ of conscious activity, was kept in constant action during the day for many consecutive hours, and therefore it was necessary that there should be a correspondingly prolonged period of relaxation from action, and repair of the brain waste condition by all thonght, solution, etc. The rest of the brain was sleep *par excellence*, hut, in addition, sleep was the period during which the repair of the excess of waste over nutrition in the body generally occurred, in so far as it had not been made good during the day. This was proved experimentally by the researches of Pettenkofer and Voit, who showed that, in reality, more oxygen in the form of carbonic acid, etc., was given off during the day than was taken in, and it was during the sleep that the excess of oxygen was stored up as a reserve fund against the possible needs of the following day. The relation of the duration of sleep to the period of action and its modifying circumstances were also considered, and a parallel drawn between the average duration of sleep and rest of the heart. The physiological condition of active exertion on the part of any organ is an active circulation through it. The local increase of the circulation or local hyperæmir was brought about through reflex dilitations of the blood vessels, effected by the organs or tissues themselves. Muscles in a state of action drew a much larger supply of blood than when quiescent; so, also, the stomach digestion. The same was observed in the brain during active thonght. This had been demonstrated by direct experiment, and it was also shown, indirectly, by the fact that when a large amount of blood was drafted off to any one particular organ, there was an impoverishment of the circulation elsewhere. Hence deep thought, necessitating a large supply of blood on the brain, was unfavorable for digestion. Also, in deep thought, the circulation became feeble in the extremities, hence cold feet, etc.

In sleep the brain is anæmic. This has been shown by Durham, Hammond, etc., by way of direct experiment. This is proved also indirectly by the greater quantity of blood which circulates in the skin and extremities during sleep, because there is a greater radiation of heat from the skin. Whatever tends to abstract blood from the brain favors sleep. Hence digestion tends to cause sleep, as do hot drinks, etc., by drawing the blood supply from the brain to the stomach. Conversely, whatever tends to keep up the activity of the brain cells and the circulation, tends to prevent sleep. This, therefore, is the effect of any stimulns applied to the senses, sights, sounds, thought, anxiety, etc. The opposite favors sleep. Hence night is the period of sleep, because sources of disturbance or stimulation of the organs of sense is diminished or altogether lulled.

How to Make Raw Meat Palatable to Invalids.—The following recipe for this purpose has been given by Ivon:

Raw meat (from the loin) 250 grammes (8.7 oz.)
Shelled sweet almonds, 75 grammes (2.6 oz.)
Shelled bitter almonds, 5 grammes (.17 oz.)
White sugar, 80 grammes (2.8 oz.)

These substances are to be beaten together in a marble mortar to a uniform pulp, and the fibers separated by a strainer. The pulp, which has a rosy hue and a very agreeable taste, does not at all remind one of meat, and may he kept fresh for a considerable time, even in summer, in a dry, cool place. Yolk of egg may he added to it. From this pulp, or directly from the above substances, an emulsion may be prepared which will be rendered still more nutritions by the adding of milk. Lailler prefers the following preparation:

Dried raw meat, 100 grammes (3.5 oz.)
Sugar, 40 grammes (1.4 oz.)
Wine, 20 grammes (.7 oz.)
Tincture of cinnamon, 3 grammes (.1 oz.)

It is a kind of electuary, very agreeable to the palate.—*Industrie Blaetter.*

Domestic Economy.

Fancy Mats for Floors.—Take a piece of canvas, of size desired, such as coffee sacks are made of. Cut a quantity of black and colored cloth in circles of various sizes, making sufficient, when one is laid on top of another, to cover the entire mat. Sew the large lower ones down on the canvas, and the upper ones keep in place by taking four stitches from the center across each side, using coarse colored cord or twine; finish by making tufts of ravelled carpet, yarn, or zephyr on the top on the top of each cluster of circles, using various bright colors. To make these, pass a strand up through the center, and winding a quantity aronnd two or three fingers or a piece of card, lay the bunch across the top of a circle, and passing the needle and strand down through it again (near the spot where it was drawn up), pull it firmly down until the tuft is drawn together, when fasten by taking a stitch or two on the under side, and proceed to the next circle. When all are done clip the tufts into round half balls or buttons. These mats may be made of old cloth, and are not only very handsome but durable. Another good mat is made by taking a piece of Brussels or ingrain carpet for a center, then finishing with a border of cloth of any and every description, plaited together in broad hands, and sewing this long pieced and braided strip round and round the mat until of desired size. Coffee sacks, worked in with coarse yarn or strips of bright cloth, making figures, flowers, etc., are really handsome when carefully done.

A Home-made Carpet.—An Eastern lady says: Have any of you a spare bedchamber, seldom used, which you would like to carpet at little expense? Go to the paper-hanger's store and select a paper looking as much like a carpet as you can find. Having taken it home, first paper the floor of your bedroom with brown paper, or newspapers. Then over this, or these, put down your wall paper. A good way to do this will he to put a good coat of pasto upon the width of the roll of paper and the length of the room and then lay down, unrolling and smoothing at the same time. When the floor is all covered, then size and varnish. Only dark glue and common furniture varnish may be used, and the floor will look all the better for the darkening these will give it. When it is dry, put down a few rugs by the bedside and before the toilet table, and you have as pretty a carpet as you could wish; a carpet, too, that will last for years, if not subject to constant wear, and at a trifling expense. I myself used a room one entire summer prepared in this way—used it constantly; and when the house was sold in the fall, the purchaser asked me to take up the oil cloth, as he wished to make some alterations which would he sure to injure it.

Be Economical.—"Take care of the pennies." Look well to your spending. No matter what comes in, if more goes out you will always he poor. The art is not in making money, but in keeping it. Little expenses, like mice in a barn, when they are many, make great wase. Hair by hair, heads get bald; straw by straw, the thatch goes off the cottage; and drop by drop the rain comes into the chamber. A barrel is soon empty if the tap leaks but a drop a minnto. When you mean to save, begin with your mouth; many thieves pass down the red lane. The ale jug is a great waste. In all other things keep within compass. Never stretch your legs further than your blankets will reach, or you will soon he cold. In clothes, choose suitable and lasting stuff, and not tawdry fineries. To he warm is tho main thing; never mind the looks. A fool may make money, but it takes a wise man to spend it. Remember, it is easier to build two chimneys than to keep one going. If you give all to back and board, there is nothing left for the savings bank. Fare hard and work hard when you are young and you will have a chance to rest when you are old.

Washing Dishes.—A housekeeper makes tho following suggestions: I have large dish pan, small dish pan, and a basket made of ordinary splint. It is two feet long, a little over one foot wide, ten inches high, strong sticks across the bottom, and handles at the ends. After placing the old sack in the bottom of my basket, I put over it a crash towel and turn down my dishes in the haskot; cups at the ends, plates in the center, and covered dishes, glass, etc., on top. Finish all my other work, as suggested, and take my basket to the china closet, near the shelves. I go over them slightly with a linen towel, and they shine like—well, washed china. My basket was made by a Canadian 15 years ago, and cost me 50 cents. I could not wash dishes without it. Think of the steps it has saved me in that time. Besides drying the dishes in it, I often place all my dishes for setting the table in it and carry in one journey to the table.

Apple Float.—A pint of stewed, well mashed apples; whites of three eggs, four large spoonfuls of sugar, beaten until stiff; then add the apples and beat all together until stiff enough to stand alone. Fill a deep dish with rich cream, boiled soft custard, and pile the float on top. This is excellent with other fruits in place of apples.

Gold Cake.—Two cups of flour; three-fourths of a cup of butter; one egg and the yolks of eight eggs; two spoonfuls of baking powder.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week.	1 month.	3 months.	1 year
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, April 29, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS. — Our Centennial Views, No. 1, 273. The Week; Agriculture at the Centennial; The Danger to Semi-Tropical Fruit, 280. The Agriculture in the State Society; A Simple Pumping Power; Fish Show at the Centennial; Mountain Farming; To the Dairymen, 281. Compositions of Ancient Style and Date; Patents and Inventions, 284.

ILLUSTRATIONS.—Fairmount Park and the Centennial Buildings, 273. Horse-Power for Operating Pumps 281.

CORRESPONDENCE. — Botanical Excursions; The San Jose Fruit Packing Company; The Silkworm Egg Trade at an End; How to Exterminate Gophers, 274-5.

STOCK BREEDERS.—The Difference Between Grades and Natives, 275.

SHEEP AND WOOL.—"Lower California Wool;" Packing Wool, 275.

BEES.—Salicylic Acid for Foul Brood, 275.

POULTRY YARD.—Sore Heads, 275.

PATRONS OF HUSBANDRY.—Address Before Antioch Grange; A Beautiful Ceremony; A Pleasant Gathering of Patrons; The Grangers' Business Association; Grange Meetings; From the Granges; In Memoriam, 276-7.

AGRICULTURAL NOTES from various counties in California and Arizona, 277.

HOME CIRCLE.—Home (Poetry); The Golden Mean; Gossipy Items from the Old Arm Chair; A Baboon Mother; Physical Benefit of Sunday; For Farmers' Boys; Fun with Babies; Stars in the Flag; School Life, 278. The Discipline of Experience; Patchwork; The Vest Pockets; The Society Definition of a "Lady," 279.

YOUNG FOLKS' COLUMN.—Letters to Boys and Girls, 279.

GOOD HEALTH.—Sleep; How to Make Raw Meat Palatable to Invalids, 279.

DOMESTIC ECONOMY.—Fancy Mats for Floors; A Home-made Carpet; Be Economical; Washing Dishes; Apple Float, 279.

QUERIES AND REPLIES.—"California Coffee;" Those Raisins; Apple Tree Pest; Ants; Cabbage Lice, 280.

HORTICULTURE.—Routier's Orchard, 282.

GENERAL NEWS.—General News Items and Miscellaneous Paragraphs, on 284 and other pages.

USEFUL INFORMATION.—Utilization of the Suds from the Washing of Wool; Sham Coffee; Save your Soapsuds, 286.

MISCELLANEOUS ARTICLES.—The Wheat Harvest; Flax Raising in America; Native "Zante Currants;" Sale of Farming Lands, 284.

The Week.

The reports of the week are but echoes of those which have gone before. Let us lift an ear to catch the notes from the counties: Amador, "every nook and corner send words of good cheer of the abundant crop;" Butte, "never better for large crops of grain, hay and fruit;" Calaveras, "grain never better, fruit better than ever, wool thick, hogs flourishing;" Contra Costa, "gentle showers make the harvest sure;" Colusa, "grain crop best ever known in the county, wool good and clean;" El Dorado, "grain and fruit flattering;" Fresno, "grain very satisfactory, except late sown, feed abundant;" Kern, "on all sides the abundance of the coming harvest is manifest;" Los Angeles, "grain seven feet high, fruit more than former years;" Marin, "prospect of heavy dairy yield;" Monterey, "wheat stalks large as mustard stems, and tall as a five rail fence;" Napa, "hay good, fruit and grapes slightly frosted;" Nevada, "hay splendid, also all fruits but peaches;" Plumas, "crops not planted yet, only three-fourths acreage probable;" San Benito, "whole country a sea of waving grain, strong and vigorous;" San Bernardino, "wool clip 500,000 pounds, superior quality and clean;" San Diego, "honey yield fabulous;" San Joaquin, "early grain will mature without more rain;" San Luis Obispo, "thousands of acres of barley will go 100 bushels to the acre, cattle rolling fat, wool extra fine, clip from three to four million pounds;" San Mateo, "grain and fruit more promising than for many years;" Santa Barbara, "larger acreage of grain, enormous yield of barley promised;" Santa Clara, "grain and hay never better;" Santa Cruz, "less acreage to wheat and barley, more oats and corn, hay large, fruit unusually promising:" Solano, "with favorable winds wheat yield one-third more than 1875, wool heavy, fruit safe and abundant;" Sonoma, "fruit and grain very good;" Tehama, "grain, hay and fruit justify most sanguine expectations;" Ventura, "heavier grain crop than ever, large planting of corn and potatoes;" Yolo, "early wheat headed beautifully, late sown moving upward rapidly."

Agriculture at the Centennial.

The plans for spreading the products of the soil in honorable display at the Centennial are assuming form and definiteness. We are enabled this week, through information received from Gen. Landreth, chief of the Bureau of Agriculture, to lay before our readers the programme for exhibitions in the specialties of field, garden and orchard production. This statement will not only enable our intending exhibitors to select the most opportune time for entering their exhibitions, but also will enable farm visitors to arrange their times so as to see what they most desire. We are informed that the Centennial commission are erecting a special additional building for the exhibition of fruits. The dimensions of the structure, situated on the east of the agricultural building, and connected with it by a covered way, are 180 by 200 feet, affording room for the display of 8,000 dishes of fruit at periods of special displays. Although the exhibition of pomological products will extend over the entire term of the Exhibition, affording most marked manifestation of the wide range of our soils and climates, still there will be certain periods especially designated for the display of particular fruits. The periods decided upon for these special displays are as follows, though any of the fruits enumerated will be received for exhibition either preceding or subsequent to these dates:

Pomological products, May 16th to 24th; strawberries, June 7th to 15th; raspberries and blackberries, July 31 to 8th; Southern pomological products, July 18th to 22d; melons, August 22d to 26th; peaches, September 4th to 9th; Northern pomological products, September 11th to 16th; nuts, October 23d to November 1st.

The pomological building will also be used for the exhibition of vegetables, continuously and at stated dates of June 20th to 24th for early summer vegetables, September 19th to 23d for autumn vegetables, and October 2d to 7th for potatoes and feeding roots. Tables and dishes for both fruits and vegetables will be furnished by the commission free of charge, producers being simply requested to pay the charges for transportation.

In addition to the above programme arranged for fruits and vegetables, the following dates are fixed for other farm exhibits:

Early grass butter, June 13th to 17th; honey, June 20th to 24th; cereals, September 25th to 30th; autumn butter and cheese, October 17th to 21st; autumn honey and wax, October 23d to November 1st.

Field trials—Mowing machines, tedders and hay rakes, June 15th to 30th; reaping machines, July 5th to 15th.

Live stock—Horses, September 1st to 14th; dogs, September 1st to 8th; neat cattle, September 21st to October 4th; sheep, October 10th to 18th; swine, October 10th to 18th; poultry, October 27th to November 6th.

Some of these dates, as might be expected, do not fit at all for California displays. The time to show our fruit is of course when it is ready to be shown, and our exhibitors will avail themselves of the fact that exhibitions will be received at any time that they are ready. Still, there are many points in which our exhibitors can coincide with Eastern producers, and thus gain the laurels which a contrast is sure to give California productions.

The Danger to Semi-Tropical Fruit.

It is only to be expected that with our gratifying success with semi-tropical fruit trees we must meet the trees' enemies. To meet them early and earnestly will be the surety of future success. Last week we made allusion to an orange and lemon pest, of which Mr. Gay furnished an account to the Los Angeles *Express*. Ex-Gov. John G. Downey now writes to the same journal stating that he has not yet met the insect which Mr. Gay describes, but he has found another, which he describes both in injury and remedy in the following interesting manner: I have at intervals examined the roots of my trees and have failed to discover the minute destroyer noted by Mr. Gay. Yet my trees are diseased. I have watched them at every stage. At the opening of spring I find a minute gnat buzzing around the orange, the lemon and lime, the oleander and rose bush, and carefully avoiding the apple, pear and the hardy Northern plants. I have followed them up, and found them at work within the leaf, depositing their eggs. The tender leaf soon curls and the young shoots are utterly eaten up with the young vermin, soon hatched into life from these eggs by the warm sun. This little fly to the naked eye looks like a small summer evening gnat in the Middle States. When examined by a magnifying glass it is found to be about twice the size of a mosquito, with dark body and with two white wings, a proboscis like a mosquito, with numerous flexible and long jointed, sectioned legs. You can see the deposit of eggs and the various shapes the insect assumes from the deposit of the egg to the rapid incubation and disgusting louse-like form before it gets wings. This fly must be the creature that deposits the eggs at a later season and envelops the deposit with a mucous gum, which we call the scale bug. In taking off this scale in the fall you find the envelope full of yellowish-brown eggs. Each envelope has from 25 to 30 eggs. If now examined with a magnifying glass they fall out of the envelope like dust. When the tree or plant is afflicted the leaves of the tree become black, the respiration of the tree is impaired, the bark of the trunk and limbs, instead of being able to perform their functions in carrying up the life-blood to the lungs for oxygenation, are prevented by an unhealthy exudation which they are unable to throw off. It settles on the surface and assumes a black fungus form. The result is decay, the fruit few and small, and the days of these long lived orange trees are numbered. Rich manuring is a partial relief. It stimulates vigorous secretion and flow of sap, which throws off partially the pest, but it is only partially and to continue the remedy will result injuriously. When I arrived here in 1850 and for many years after, the trunk of the orange tree was as green and healthy as the leaf. The disease has not reached the Cucamonga or Camulas ranch (Mr. Del Valle's), and the curious can still see the same condition existing there.

Soap, ashes, water and brush will do much, but the remedy is tiresome and expensive. An infusion of quassia sprinkled on a floor will kill the house fly instantly. The quassia is a gentle tonic to the higher organization of animal life, while to the fly it is a violent stimulus that produces instant death. The quassia is cheap; a pound of it would make a barrel of a decoction, and cost perhaps 25 cents. But I believe that we have the remedy at home. A decoction of the leaves of the eucalyptus will answer every purpose. This little fly seeks for sweet scented and sweet tasting plants. Sprinkle the trees with this decoction and besides killing the insect it will give a taste and odor that will disgust the little but fearful pest. We should all experiment and give our results to the public. A systematic raid on this insect, whether it be at the root or the branch, will result in great good.

Statement from Mr. Gay.

EDITORS PRESS:—I am pleased to lay before your readers, who may be interested in orange and lemon culture, the cause of the immense destruction of the tropical trees of Los Angeles county, hoping that if such destruction is occurring elsewhere in the State, that this communication may be of value in ascertaining the cause. It is a well-known fact here, that hundreds of thousands of dollars' worth of trees have been destroyed during the past few years in this county. The lemon stocks being the preferred trees, they have gradually wasted away, till but a remnant of sickly, dying trees remain in those once beautiful and very profitable lemon orchards that used to be seen here. Many of the orange trees have also sickened and died; and very many, that to all outward appearance are well, are really and seriously affected at the root. Heretofore the cause of this destruction has remained a mystery, many declaring that it was too much water, others that gophers did the damage; whereas the destruction is really caused by a little insect burrowing in the bark of the trunk or roots of the tree, beneath the surface of the ground, commencing generally on the trunk of the tree or at the junction of the root with the trunk; occasionally they commence on large roots near the trunk of the tree, but not often.

The bark in which they work first turns a pale yellow, looks wet and spongy, gradually becoming darker till it decays. When the tree is from one-half to three-fourths girdled, the foliage, that has heretofore looked healthy, turns a pale yellow; the fruit is small and inferior in every respect. The sap oozes from the bark of the tree, above the ground, forming in gum on its surface. Such a tree is called sickly here, and very sickly it is, for, on examination, not only is the bark nearly gone but many of the small roots are decayed; and that tree, that has cost so much in time and labor and was so valuable, is now worthless. The insect is passed over unmolested, because it is so small that but few can possibly be seen with the naked eye. By looking at a piece of the bark through a powerful hand microscope, the insects may be seen in the caves and caverns they have formed in the bark. A little white, glassy colored insect may be seen, much resembling a wingless beetle; also, a little white worm, which may be seen trying to pry his way in by swinging his body back and forth, or twisted, in appearance like a gimlet. I hope very soon, by further experiments, to fully establish the origin and connection existing between these two insects. There are but few people here who take any great interest in the matter, and it is not at all improbable that some other section of our State, less highly favored as regards climate, will come in for a large share of the profits, if not lead off in the culture of these beautiful and profitable fruits. I do not know whether such destruction is going on in other parts of the State or not; if so, and your readers will so indicate it, I will cheerfully give, in another article, a sure method of cure, as proven by experiments made a year ago. LESLIE F. GAY.

ON FILE.—"Botanical Excursions," J. G. L.; "Analysis of an Alkali Soil," E. W. H.; "Medlar and Loquat," J. J. H. and F. G.; "Notes on Rocklin and Antelope," B. W. C.; "Farms in the Foothills" and "Farmers Selling Out," J. T.; "Farmers, Write for your paper," * *; "Agriculture around Reno," J.; "Farm House Chat," M. M.; "Woodside Papers," J. E. J.; "Farmers' Wives," C. I. H. N.; "Azusa Grange," J. C. P.; Inquiries from E. E. and M. E. F.; "Curl Leaf," J. S. and F. G.; "Swarming Bees," * *.

QUERIES AND REPLIES.

"California Coffee."

EDITORS PRESS:—The article on "California Coffee," from the Stockton *Independent*, in your issue of April 15th, revives the periodically recurring question, whether there is any native plant deserving to rank as a fair substitute for coffee. At least that has been the shape of the question heretofore; and so long as the genuine article is in easy reach of the bulk of the population, the demand for a substitute is not likely to prove very lively. So much remains to be done in getting housekeepers to prepare the genuine beverage economically and to the best advantage, that substitutes should scarcely yet be in order. But it is now asserted that the native article actually does belong to the coffee tribe of plants, and that where it grows the true coffee ought also to thrive. I doubt that either conclusion is well founded. What has been sent to me from various sources as "California Coffee" is the seed of a species of *rhamnus*, or buckthorn; and the description given of the shrub of the foothills by Mr. Jones agrees exactly with that of the rhamnus in question. Now, the buckthorn family of plants differs widely from the *cinchonaceae*, both botanically and (what is especially interesting in this connection) as regards their physical properties. The name "cathartin," given to the active principle contained in most of the known species of *rhamnus*, is sufficiently significant to suggest the propriety of a careful investigation of the probable effects upon the human frame of the seed in question before recommending it for use either as a substitute for coffee, or even as preferable to carrots or chicory for adulteration. That it has produced no sensible deleterious effect when once used, or a few times, is not a sufficient basis of fact for so sweeping a recommendation as has been given it. If Mr. Jones, or any one else, will furnish me a few pounds of the seed or berry, I will investigate its properties, merits and demerits, and make faithful report thereof for the public benefit. —EUG. W. HILGARD, University of Cal., April 24th, '76

We trust that Prof. Hilgard will be furnished with the material, that he may make a full exposition of the matter.

Those Raisins.

EDITORS PRESS:—Will you please inform me by what process the raisins were made which were sold in Michigan at 16 cents per pound, as stated in Mr. Finch's letter, published in your last number? Mr. Finch writes like a sensible person and gives the names of the firms in Michigan who purchased the raisins, and it all looks fair and square, but who is Mr. Finch and where does he reside, and when and how were such fine raisins made that brought 16 cents—the highest price paid for the very best imported raisins. Mr. Finch writes from "Pleasant valley," but I can find no such postoffice in the State. The grape-growers feel a deep interest in this raisin proposition, since wine don't pay, and if there is any process by which a superior raisin can be produced at a reasonable expense and sold for 16 cents per pound, there is money in it, and I am anxious to hear more about the business.—M. L. LEE, Stockton, Cal.

Mr. Finch dried his raisins by the Alden process. We believe he has a drying establishment at Vacaville. The point which we were illustrating was the success which might be gained by skillful marketing. We are not prepared to say that Mr. Finch's raisins were superior to raisins prepared by other methods, but we considered it a point of enterprise to place them in the hands of retail dealers in the East and gain a good price by saving them the importers' and jobbers' profits on imported raisins.

Apple Tree Pest.

EDITORS PRESS:—Can you or any of the readers of the PRESS tell anything about the "Wooly Aphis?" I have a few apple trees infested with the "critter," and I fear it is something that is going to give me trouble. First I discovered a few last year on some young apple seedlings which I got from San Jose, but not thinking them of much importance, I let them go, but I see they are coming out in full force. They look at a little distance like bits of cotton on the buds and little knots, and the roots appear to be infested, as some of them are full of little knots or warts, and the branches show the same wherever I find the "Aphis." I will send you a sample of them with a twig or two, so you can see how they look. If they are an enemy to our fruit raising I want to know how to get rid of them, and soon, too.—O. N. CADWELL, Carpinteria, Cal., April 16th, 1876.

The best and easiest remedy we know is to attack the pest with a good drenching of suds made with whale oil soap. As Mr. Cadwell's trees are young, it may be best to bend down the small branches and dip them in the suds. This remedy will compass the evil if thoroughly applied, and we would recommend its application at once. Can any of our readers relate any successful contest with the pest?

Ants.

EDITORS PRESS:—If any of your readers are troubled this summer with ants going up their trees to bother the fruit, this is the best remedy I know to prevent their aerial excursions: Take an old rope of any size, soak it in oil, then in tar, and tie it round the trunk of the tree, a few inches above the surface; be sure that no ants will cross that Rubicon. As for those that would be on the tree already, "Good bye, John;" they will have to walk up and down till, like the pedestrian of the other day, they will be forced to give it up and drop to rise no more. The best method to exterminate ants that have taken possession of a house is to lay on the floor where they generally make their beat, a bone with a little meat sticking to it; in a little while the bone will be covered all over with ants; it is then thrown into boiling water, and the operation repeated till all the ants are done with.—FELIX GILLET, Nevada City, April 17th, 1876.

Cabbage Lice.

EDITORS PRESS:—There are in your last issue several queries to which, I believe, I can give a reply. First—Cabbage lice. What is good for it? Quarles a subscriber, far away in Kern county. London and Paris gardeners have tried everything, and the best remedy, or rather palliative, found yet, is the lady bug, or *Coccinella*. This is no joke, and I tried it myself five years ago. Let any of your readers whose cabbages are overrun with lice, hunt up in gardens lady bugs, which, after being gathered in a box, are let loose among the affected plants. The lady bug, your readers must know, is a little coleopterous insect of different colors, feeding mostly on plant lice, and which, in a perfect as well as larva state, makes an enormous daily consumption of lice. Thanks to Mr. Reed for his remedy for that other vermin, borers; I will certainly try it.—FELIX GILLET, Nevada City.

SACRAMENTO NEWS AGENCY.—The PACIFIC RURAL PRESS will always be found on the counter of A. S. Hopkins, No. 75 J street. Mr. Hopkins is the leading periodical dealer in Sacramento. His store, recently enlarged, is well stocked with books, periodicals and stationery.

The Agriculture in the State Society.

When we maintained, some time ago, that the management of the State agricultural society had not been in the interest of the farmers of the State, we were set upon by the Sacramento *Record* with a catalogue of the farmers who were on the State board, and whom the *Record* claimed were pleased with the shaping given to the fairs of the society. If we are not mistaken, especial reference was made to Coleman Younger, of San Jose, as a member of the last board. How far Colonel Younger approves of the "overshadowing" of true industrial interests by "the excitements of the race" may be gained by the following extract from an address made by him at the recent cattle breeders' meeting in Sacramento. He said:

The State fair is intended to foster all our industries, and the district and county fairs are expected to do the same in a local point of view, equally in proportion to their true worth. We ask the question, do the managers of fairs carry out this idea? When any one industry has more than its due proportion of interest given to it, in money or time, all others suffer in proportion. If, for instance, cattle were to receive two-thirds of all moneys appropriated for premiums, it would be manifestly unjust to all other interests.

Now, it is a fact that the managers of fairs usually give at least two-thirds of all moneys appropriated for premiums to the speed programme. Is this just or necessary to foster the industries of the State? And this is especially true of the State fair. There were over $20,000 offered for premiums by the board of managers of the State fair for the year 1875; and for the year 1874 there were given for speed purposes over $16,000, less the 10 per cent. entrance fee; the cattle premium was under $2,000. Is there any good reason why this difference should be made? Is the speed of the horse of so much more value than all other stock?

The high estimate of speed is purely speculative, and that speculative interest is enhanced by the new and ingenious mode of investing on the result of all contests of speed, either of running or trotting. The managers of this new mode know from the percentage they charge that in time they have the lion's share, and it is to their interest to multiply these contests, which they take great interest in doing. Their percentage being enormous, they can afford to pay large sums for the privilege of furnishing a box for the people to deposit their money in.

This new mode of investing on the result of speed has done much to bring these noble contests into disrepute and to lower it to a species of exciting and fascinating gambling, it is said men *will* gamble, and this is the most decent mode of doing it. Well, suppose it is; is that any reason for allowing them to introduce it at our fairs?

Is it commendable to make our fairs accessory to the carrying on of this dangerous and seductive vice? But the question arises, can managers of fairs afford, for the sake of money, to mold public sentiment against good morals to such an extent that fairs, as now managed, are made the most fascinating gambling places? Is this the result of fairs? Was it ever contemplated that this should be a prominent feature of fairs? Is this new mode of gambling any part of the industries of the State? Does it add any wealth to the State? If not, then why give it the fostering hand of an agricultural society?

To say we cannot hold fairs without the aid of pool selling is an insult to the intelligence of the people. It has been tolerated like the Chinese immigration; but from indications the days of both institutions are numbered.

We do not expect to control this institution for the present, for we know the powerful and active influences that are brought to bear to force it upon the public. If it is to be a State institution we propose to limit it to the course. We enter our protest against its being permitted at fairs. It is not one of the industries, and has no claim for public patronage. To allow it is in violation of the plain provisions of the law creating the State fair.

We have no desire to detract one jot or tittle from that noble animal, the horse; but we do object to the enormous appropriations that are given for speed, and the time that is set apart for it. There is no justice or justification in the distribution of the money as now practiced, and we propose to insist on the managers of fairs making a more liberal adjustment among the great industries of the State that need and should be fostered by the State, and also by the institutions chartered by her for that purpose.

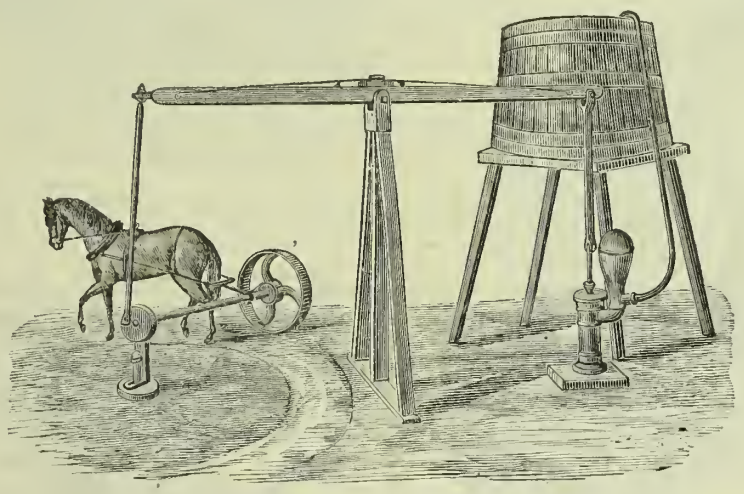
Monster Cheese.—J. B. Phillips, a well-known dairyman of Ashtabula Co., Ohio, recently made arrangements for exhibiting a mammoth cheese at the Centennial, the weight of which is to be 29,000 pounds. The dairymen's association of the Western Reserve raised a fund of over $2,000 toward defraying expenses in getting up this immense product of the dairy. It is said a car is building at Pittsburg for the special accommodation of the monster cheese. This, when finished and sent to Philadelphia, will, doubtless, be the largest cheese ever heard of in the world.

A Simple Pumping Power.

We present our readers herewith the illustration of a novel horse power for operating pumps, the invention of Mr. Frank A. Hill, the well known and gentlemanly superintendent of the agricultural machine works and depot at San Leandro, in this State. Mr. Hill is the inventor of the Eureka gang plow, which recently defeated all antagonists at the plowing match at Rio Vista, and he seems determined to supply our farmers with economic, simple and effective machinery for doing all kinds of farm work. And *en passant* we would say that Mr. Hill has secured United States letters patent on the above named inventions—and a great many more—through the Mining and Scientific Press Patent Agency. The horse power, it will be seen, consists of a centrally pivoted walking beam, one end of which is connected with the pump rod by a pitman, while the opposite end is connected with a crank wheel by a similar pitman. This crank wheel is secured upon the end of a horizontal shaft, which is supported by a suitable standard near the wheel. The outer end of this shaft has a large traction wheel mounted on it, and the horse is hitched to the shaft near the traction wheel. As the horse travels around in a circular track, the traction wheel rotates and the motion is transmitted through the crank wheel, oscillating beam and pitman to the pump rod. This arrangement is extremely cheap and simple, and cannot help but be effective.

Parties desiring to learn further particulars in relation to this device, can address F. A. Hill, San Leandro, Cal.

Does Summer Fallowing Pay?—A farmer writing to the *Willamette Farmer* gives some valuable figures on the value of summer fallow.



HORSE-POWER FOR OPERATING PUMPS.

We commend his statement to the attention of grain growers: Many good farmers suppose summer fallowing a loss of time and labor, I think it not simply a gain in time, but a great saving of labor, and benefit to the land. Let us look at it. Say you grow 20 bushels per acre every year in succession. You plow and harrow in your grain, either in the fall or in the spring. You plow once, and harrow twice, that is, you cross-harrow. You do this labor for 20 bushels of wheat. Now, suppose you follow your ground and pasture it with sheep, the pasturage pays for plowing, and the manure for rent, or percentage, on the otherwise idle land. You have thus lost the use of your land one summer, but have been *paid* for it. Now, in the fall, you sow your grain on land free from weeds and well manured; as a consequence, then, you grow, the following summer, 40 bushels per acre. You not only have doubled the quantity of wheat, but of a better quality—your wheat being plumper, and heavier to the bushel. Have you lost anything? No. You have saved one-half the labor, and improved your land greatly. Then, summer fallowing *pays*—don't it? If the farmers only thought so, and would *do so*, it would add immensely to our rural wealth.

Perkins' Patent Self-Regulating Windmill has now been in use some five years in California, and is highly recommended. Israel Horton, the general agent for this coast, at Livermore, has been busy in disposing of them in large numbers in the San Joaquin valley and other adjoining districts of California, and has not hitherto introduced them through the Rural Press to the general farming public of the State. On a recent visit to Livermore, we found Mr. Horton to be a well established business man, and we expect to see his already successful business extended to various new parts of the State. His windmills have taken the premium at both the San Joaquin Valley agricultural fair at Stockton and the State fair at Sacramento. Persons wishing windmills are referred to Mr. Horton for his illustrated circular.

Diversification of crops is wisdom, and worthy new varieties are always welcome. Such, from all accounts, seem to be the "Chufas and Japan peas," advertised in another column.

Fish Show at the Centennial.

Gen. Landreth forwards to us the following circular, which is self explanatory: The Centennial Commission has provided 30 aquaria for the display of the fish of our rivers, lakes and seas. The fresh and salt water will be of about equal quantities, the aggregate approximating to 15,000 gallons. Full preparations have been made for thorough filtration and aeration, and when necessary, for refrigeration. The expenses attendant upon the fish display will be assumed by the Centennial commission, and it is expected that fish will be contributed by the various State fish commissions, by associations, and by individuals interested in fish culture. Parties so desiring may exhibit fish in tanks of their own contribution, the care of which will be gratuitously assumed by the commission. In addition to the display of living fish, will be exhibited the processes of hatching fish, and a full series of all the apparatus used in hatching and transporting roe and young fish.

Those who are in a position to contribute rare fish to the display, will receive all necessary information by addressing Burnet Landreth, Chief of the Bureau of Agriculture.

Mountain Farming.

Mr. Chas. Barker, whose ranch is in the suburbs of Grass Valley, is an encouraging example of what can be accomplished by intelligent and patient industry in our mining districts. His tract (a large one for cultivation in such a location) is largely occupied by fine bearing fruit trees, interspersed with small fruit-bearing shrubs. Strawberries and some vegetables also thrive better under the protection of the orchard than in the open field, owing to the warmth and other peculiarities of the climate. A portion of the ground has been drifted out 25 feet below the surface by miners in early days. Other sections were mined on the surface, and acres of it have been gradually reclaimed by Mr. Barker from an utterly God-forsaken looking waste. From old worked out claims the ranch is abundantly supplied with water for irrigation, which makes his place a fruitful and beautiful homestead. Apples, pears, figs, grapes and other like fruits flourish well; also almonds and walnuts. The Jocunda is one of the best varieties of strawberries for the location. His blackberry bushes, pruned high and supported by parallel bars, bear prolific. Rhubarb is one of the best crops raised in the town. We are told that over 20 tons of this product is shipped from Grass Valley per annum. We would thank Mr. Barker if he would collect some facts in the Grass Valley Grange (of which he is W. M.) concerning the cultivation of different fruits and vegetables in their neighborhood, cost of cultivation, average prices received, etc. Also discuss the methods of cultivation and furnish the Rural Press with a report of the same.

A Model Culturist.—Our recent visit to the homestead of Felix Gillet was one of much pleasure. His grounds comprise several acres of what was five years ago a barren hill among the mining claims of Nevada City. Now it is systematically laid out with avenues and alleys and appropriately planted to choice foreign and domestic fruit trees, all of which are apparently in remarkably thrifty condition. His cocoonery shows much intelligent and diligent handiwork. Indoors and out everything appears as neat and clean as a freshly scrubbed kitchen floor. We shall in future receive his contributions to the Rural Press with enlivened interest.

California Carriage Manufacturing Co.—Messrs. W. L. Pritchard, George Cowles and C. Zimmerman, have established in Sacramento what is now the largest carriage factory on this coast. The building has four stories, fronting 168 feet on Eighth street and 88 on K street. Cost, $100,000, including the lot. They have the latest improved machinery, systematically arranged for turning out good work economically. This home enterprise is worthy of future notice in our columns.

To The Dairymen.

We are sending out the following circulars to those dairymen who have signified to us their approval of the proposition for organizing a dairymen's association. We print them below that those of our readers who favor the idea of a society, but who have not written to us upon the subject, may likewise enjoy the opportunity of a share in forming the society if they desire:

California Dairymen's Association.

Dear Sir:—A proposition was made in the Rural Press of March 4th for the organization of a California Dairymen's Association. As associations of this kind have proved most effective in the Eastern dairy States in developing the business, promoting skill in dairy practice, and putting fair regulations upon methods of sale, the editor suggested that a similar society might prove of great benefit to the California dairymen. Immediate and hearty response was received from the dairymen, as the letters which have been printed in the Rural Press on this subject will testify.

It remains now but for those who favor the idea to meet and organize. We send you herewith a blank call for a meeting. Please sign it, and, if convenient, ask your neighboring dairymen to sign, and return the list to us.

When these lists are received, we will print the call, with the names attached, in the Rural Press, and invite other newspapers to do the same. Thus the proposition will be brought prominently before the dairymen, and all who desire can attend and take part in organizing an association.

In order that the meeting may be well noticed in the paper, we ask you to mail the names to us by the 1st of May, if possible. Very respectfully, yours,

Editor "Rural Press."

San Francisco, April 18th, 1876.

Call for a Meeting to Organize a California Dairymen's Association.

Believing that an organization of California dairymen will be useful in devising measures for the promotion of the dairy interest of the State, valuable for improving dairy methods, practices and appliances, and effective in securing to dairymen increased profits, by gaining more equitable rates of transportation, better care of the product in transit, and less oppressive charges generally in marketing, we, the undersigned, beg to call a meeting of dairymen in the Produce Exchange, corner Clay and Davis streets, San Francisco, on Thursday, May 18th, at noon.

We urge upon all the dairymen of the State to join us at the above named time and place, for the purpose of organizing a Dairymen's Association, in order that we, as dairymen, may act together for our good and that of the industry in which we are engaged.

Signed: —— ——

Any of the dairy readers of the Rural Press who desire to be enrolled in this movement will favor us if they will send us their names and addresses at once, in order that all may be printed in connection with the call, previous to the meeting.

Cattle Sale.—The sale of Short Horn cattle, under the auspices of the Short Horn Breeders' association, took place in Sacramento on Thursday, April 19th. The attendance of speculators was very good, but the bidders were very few. There were but five head of stock sold by public auction, as follows: Bulls—grade, year old, property of E. Comstock, Yolo county, was sold to David Tryan for $40; San Jose Duke, property of C. Clark, San Jose, was sold to Joseph Joerger, Folsom, for $160; Oxford Duke, yearling, property of M. Wick, was sold to Mr. Craig, of El Dorado, for $175; Thirty-fifth Grand Turk, of Oak Home, property of W. L. Overhiser, was sold to J. Milthy for $110. Cows—Lorena, two years old, property of M. Wick, was sold to R. B. Blowers for $100. There were a number of sales made on private terms, and on the whole quite a large number of cattle changed hands. Among the private sales was one of eight head of cows and two calves, belonging to the estate of the late Judge G. N. Swezy, of Marysville, to W. W. Stow, of San Francisco, for $150 each for the cows and $50 each for the calves. Colonel Younger sold one yearling bull to Thomas Edwards, of Sacramento. He also made an exchange of a cow and calf with C. F. Reed, for a young bull—the terms of exchange were private. J. D. Carr and C. F. Reed also exchanged bulls on private terms.—*Record-Union.*

Glove Manufacturing.—This branch of home industry is a success in California for very good reasons. When the best of California dressed skins are used, customers can depend upon a better article for wear than can be obtained of any imported article. From a recent call at I. W. Lusk's "Sacramento Glove Factory," on 10th street, between J and K streets, Sacramento, we learned that ladies' and gents' driving and other gloves were made of black kid, russet, and drab, and Indian tanned buckskin. Mittens are also made for boys and girls—old and young. Singular as it may appear to Northerners, the busy season in this trade is during the warmest part of the year, from May to November. This is on account of mining, teaming, harvesting and other farm work prevailing during the summer months. To obtain a correct measurement for the glove maker, place the palm of the hand on a piece of paper, spread the fingers well apart and mark around them with a pencil. Measure around the palm of the hand and mark the circumference on the pencilled figure, and you are guaranteed a fit from such a pattern. Mrs. Lusk informed us that the above named factory (formerly owned by W. F. Ashby,) has been established over nine years. The work is done principally by ladies, and we wish the enterprise continued success.

A Remarkable Calf.—Our real estate neighbor, Grant I. Taggart, of Oakland, has a Durham calf only 10 months old, which weighs 660 pounds. She is a fine specimen in all respects. Her sire, formerly owned by Vernon & Flint, has been purchased by a resident of Petaluma.

HORTICULTURE.

Routier's Orchard.

EDITORS PRESS:—Routier's orchard and vineyard is situated on the American river, 10 miles from Sacramento, on the line of the Sacramento Valley railroad, and the business derived from that farm has been such as to induce the railroad to create a station at that locality for the accommodation of its owner. The amount of fruits marketed from that place has been increasing steadily every year. Judging by appearances, this year's crop will be twice as great as any which has been produced before.

Mr. Roulier has been residing on his farm for 23 years, but owing to the impossibility of acquiring a good title until about 12 years ago, did not begin to improve his farm extensively before that time. But now his farm, of about 100 acres, is highly improved. He has between 5,000 and 6,000 fruit trees, of the best varieties, and 20,000 grapevines, comprising Flaming Tokay, Muscat of Alexandria, Black Hamburg, Rose of Peru, etc. Mr. Routier has been turning his main attention to producing a good claret, and, after years of experiments, is sanguine of having solved the problem. I will not say that his claret is as good as fine French claret, but it is superior to anything sold by our wine dealers as French claret at $1 per gallon. The variety that Mr. Routier finds the best for it is the Black Zinfandel, and he is grafting his old vines as fast as possible with that variety, and expects to produce soon 20,000 gallons of good claret every year, and to be able to dispose of it, wholesale, at about 50 cents a gallon.

The orchard will very likely turn out this year between 200 and 300 tons of fruits, such as apricots, peaches, plums, prunes, pears, almonds, apples and also table grapes and raisins by the quantity. It requires six men in winter to keep the place in order, and from 10 to 20 in summer to pick and pack fruits. This does not include the hands required for drying fruit, who average from 10 to 30 for two or three months. Mr. R. does not employ Chinamen, as he considers one white man worth two Chinamen.

As a general rule, Americans want large farms and will hardly keep more than one man employed the year round. At Mr. Routier's we see one farm, perhaps the smallest in the county, employing an average of 10 men all the time. Suppose Sacramento county were cultivated and improved at the same rate, the population of that county would soon grow to be 100,000 or more. So much for French industry and perseverance. It is worth mentioning also that there is a fine flower garden on the premises, where the choicest plants and bulbs add considerably to the attraction of the place, thus mingling the useful and the beautiful.

VISITOR.

Sacramento, April 12th, 1876.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure-Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

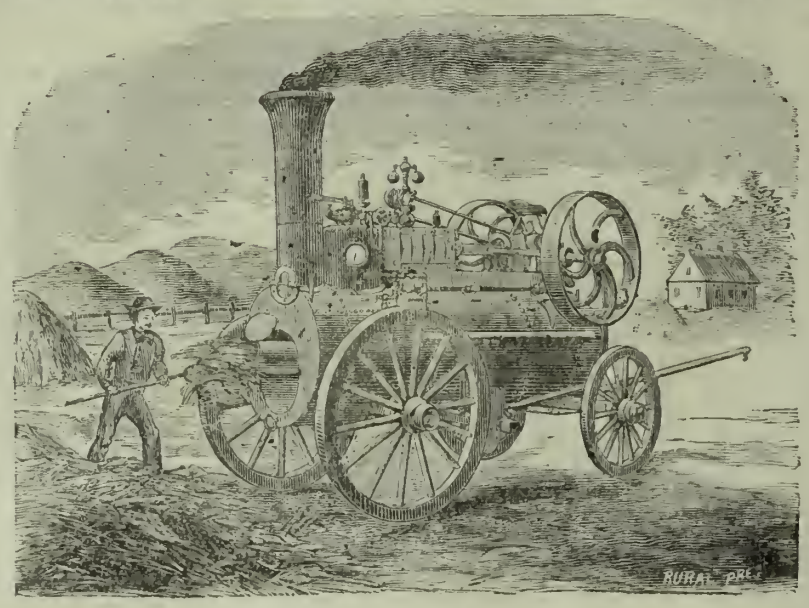
ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the state, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific Coast, and all orders should be addressed to them.

SAN FRANCISCO, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street San Francisco, and corner Second and J streets, Sacramento.

13feb76tf* MARCUS C. HAWLEY & CO.

Agricultural Articles.

MATTESON & WILLIAMSON'S

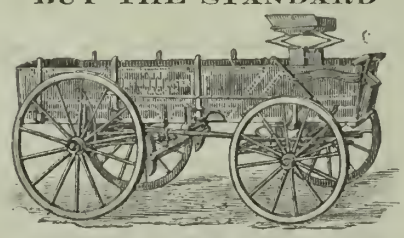
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.

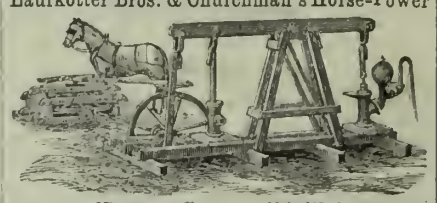
Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1853. Send for Circular and Price-list.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

THE Improved Eagle Hay Press

CHEAP, STRONG, ECONOMICAL, POWERFUL AND RAPID.

THE KIMBALL MANUFACTURING CO.,

Owners of the Patent, and Sole Manufacturers on the Pacific Coast, make

Cars, Carriages and Agricultural Implements,

Cor. Fourth and Bryant streets, S. F.

Pressing hay in bales in a compact and easily managed shape has become one of the features in the industry of California farming.

The large sales the past season, and the increasing demand of the present, gives proof of the advancement of the Improved Eagle Hay Press over all competitors on this Coast.

Three men, with a team, can bale from ten to fifteen tons per day, each bale weighing from 250 to 350 lbs., according to the quality of the hay. It uses less rope than any other press of its size. Size of bale box, 49 inches long, 26 inches wide and 27 inches high.

These presses are made in San Francisco, by the KIMBALL CAR AND CARRIAGE MANUFACTURING CO. Also manufacturers of agricultural implements, California grading scraper, farming tools, carts, plows, wheel-harrows, portable railway track and cars, railway and street cars, omnibusses, Taylor's patent tubular iron and wood harrows, with driver's seat attached, Harris' patent tubular iron square or Scotch harrow, steam fire engines, Hayes' patent fire escape, Southwick's patent turbine windmill, quartz and farm wagons, trucks, road scrapers, all styles and grades of harness; carriages trimmed to order; manufacturers and agents of Tulloch's automatic ore feeder; machinery made and repaired; fine carriages and all styles of buggies.

Straw-Burning Attachment.

KING'S PATENT.

THE ONLY SUCCESSFUL BURNER YET INTRODUCED.

Having secured the exclusive right to manufacture and attach to engines, J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of threshers to notice why it is superior to all other Straw-Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

The Attachment

Can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced County.

All orders addressed to J. R. KING, Patentee, in care of the Globe Iron Works, or H. C. SHAW PLOW CO., Stockton, will receive prompt attention.

☞Send for Circulars.

JOHN CAINE,

Proprietor Globe Iron Works.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Bluder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL.,

Will receive Prompt Attention.

ETNA MOWER AND REAPER

Price of Mower, $100.

The Latest and Best. Weight, 650 lbs; cuts four feet, four and one-half inches. It has ALL THE IMPROVEMENTS of every first-class machine, besides a DOUBLE SPEED (which no other has), giving a fast or slow speed to the knife or sickle—an important advantage. Send for Illustrated Pamphlet, and don't fail to see the "ETNA," before buying. For sale only by

BERRY & PLACE, San Francisco,

(Successors to Treadwell & Co.)

☞We guarantee to keep "extras" on hand from year to year for this machine.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

FRANK BROS. & CO.,

349 Market Street, - - - - - - - San Francisco, Cal.

WALTER A. WOOD'S

IMPROVED IRON MOWER

23,507 were made and sold last year. Their immense sale and unprecedented success IN PRACTICAL FIELD WORK, fully establishes their superiority over all other machines for SIMPLICITY and PERFECTION of CONSTRUCTION.

WALTER A. WOOD'S

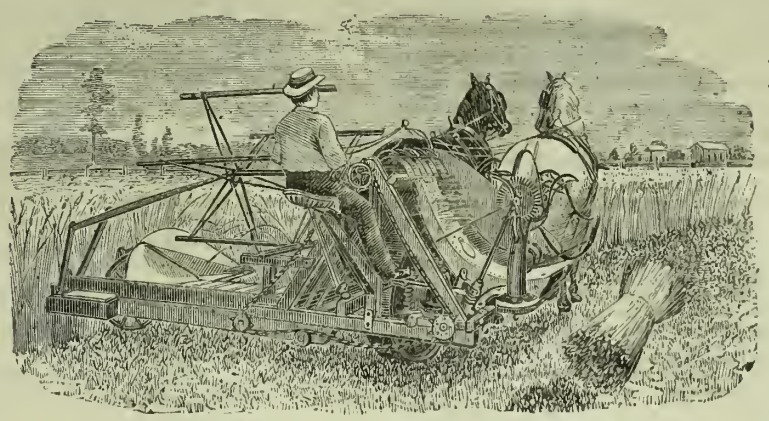
Chain Rake and Sweep Rake Reaper.

WALTER A. WOOD'S

Harvester and Self-Binder.

The Greatest Labor-Saving Machine of the Age.

COATES' LOCK LEVER SULKY RAKE.



WALTER A. WOOD'S HARVESTER AND SELF-BINDER.

THE CELEBRATED

La Belle Farm and Freight Wagon.

SWEEPSTAKES THRESHERS,

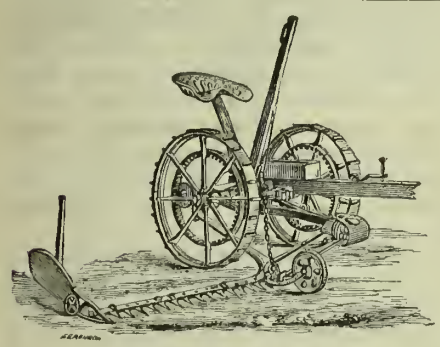
SPECIALLY IMPROVED FOR THE PACIFIC COAST.

HAINES' HEADER,

WITH ALL THE LATEST IMPROVEMENTS.

Chaplin & Tiffin's Revolving Rakes,

Warranted the Best in the Market.



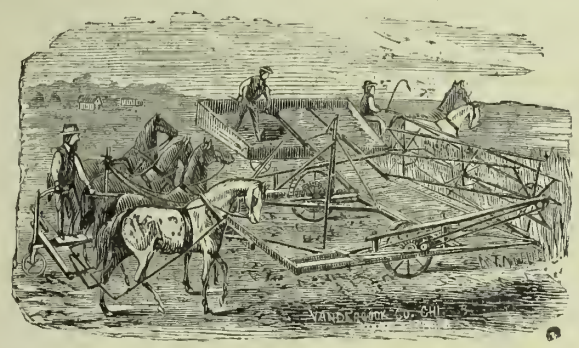
WM. ANSON WOOD'S EAGLE MOWER.

RUSSELL PEERLESS MOWER.

WM. ANSON WOOD'S EAGLE MOWER,

Now acknowledged to be the Leading Mower on the Coast—From its durability and strength, being constructed of iron and steel, and from the rapidity of its motion, cutting all kinds of grass. It will work on uneven ground.

With Adjustible Reel. Iron Wheel.



Beware of Imitations.

ALSO,

HEADER DRAPERS.

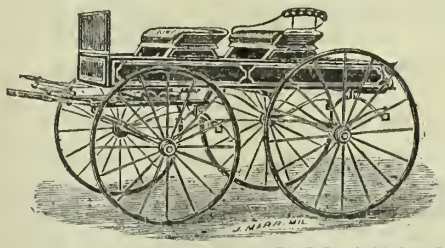
HAINES' SINGLE AND DOUBLE GEAR HEADERS.

CASE'S SINGLE GEAR IRON WHEEL HEADERS,

WHICH WE WARRANT THE BEST IN THE MARKET.

A Full Supply of Extras for the above Machines Constantly on Hand.

FISH BROS.' FARM WAGON.



FISH BROS.' PLATFORM SPRING WAGON

FISH BROS. & CO'S PACIFIC FARM, SPRING AND HEADER WAGONS

The best painted, the best proportioned, the best ironed, and the Best Wagon on Wheels We can sell a BETTER SPRING WAGON FOR LESS MONEY than any firm in California, comprising Two Spring "Specie Basis" and Platform Spring Delivery Wagons; Three and Four Spring Express Wagons, both with plain and Sarven's Best Patent Wheels.

LINFORTH, KELLOGG & CO., - - 3 and 5 Front street. S. F.

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Cal

FOR SALE.

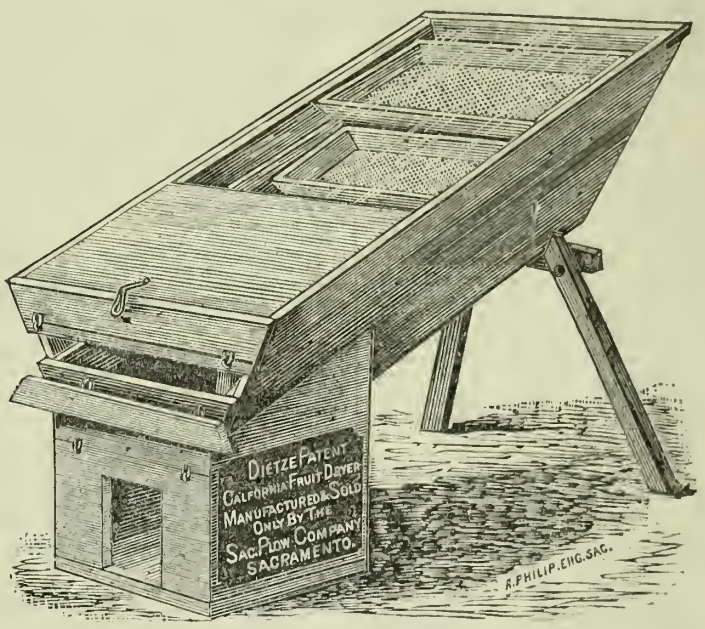
NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

CALIFORNIA FRUIT DRYER.

DIETZ PATENT.



Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple n construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,

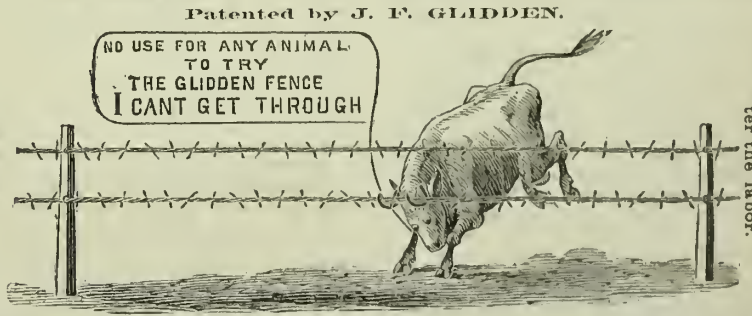
Sacramento City, Cal.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Egg and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 47 Cal. Market S.F

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

The Wheat Harvest.

Early in June, that is six to seven weeks from date, the first new Wheat will make its appearance. The harvest is now assured, all danger from northers, etc., having passed away, and it is incomparably the greatest that has ever been seen in California. Early in March this journal stated the situation as follows:

The acreage under Wheat this season is in or about 2,400,000 acres. Assuming that every thing is favorable, this will produce 18 bushels, or 10 4-5 centals, per acre. The whole yield would, at this rate of average, be 25,920,000 centals, or 26,000,000 centals in round numbers. Out of this there would be required for home needs, say—

	Centals.
Consumption as Breadstuffs	3,000,000
Seed	3,000,000
Distillation, etc	1,000,000
Total home needs	7,000,000
Total production in round numbers	26,000,000
Export surplus	19,000,000

That the returns will be about as here stated, there cannot now be the shadow of a doubt, and the next question is what shall the price be. Upon this point there is room for considerable difference of opinion. Ordinarily the existence of an immense surplus such as this is, and the assurance of a proportionably large one in Oregon, would settle the matter in favor of a low market the whole year through, and the first transaction of the season—a sale of 20,000 centals at $1.57½ would seem to be conformatory. But England will have a much smaller crop this year than in 1875, and will require larger imports to supply her deficiency, and the English market in July will be bare compared with what it was in July 1875. The great surplus that existed in most European and other countries has been exhausted, and a slight falling off of the yield in Russia, Austria and France from that of ordinary years would leave a void which it would take all that we could spare to fill. Then there is the possibility of a war in which Russia and Austria would take part, arising out of the Turkish complications, and in this event also high prices might be looked for. It must be confessed however, that none of these things are probable—it is therefore very likely that prices will be low and freights much higher than they have been during the past harvest year, probably on an average £1 sterling, or $4.8665 per ton higher—that is 24 cents per cental. The prospective market price does not therefore promise to be over $1.60, but at this, the result to the State itself in general and to the farmers in particular will be highly satisfactory.

The quantity available for export in the shape of Wheat and Flour will therefore be worth $30,400,000, or over $33 for every person in the State, and $165 for every family. It would be sufficient for supplying Breadstuffs to a population of 6,000,000, or nearly seven times that of ours—that is to say, that had the State a population of 6,900,000, the Wheat raised this year without any increase in the average or in the number of agriculturalists, would suffice to supply all with bread. Or in other words we could support a Grape growing, Beet Sugar growing, Cotton growing, manufacturing population of that number, the annual earnings of which would be at least $1,000,000,000 greater than the annual earnings of the whole population now. We will however, for a long time be producers of Wheat rather than consumers of it, and must needs devote our time and energies to the making of new markets and the extension of the capacity of old ones.

The Nevada, Grass Valley and Colfax (narrow gauge) R. R. company commenced its regular trips (from Grass Valley to Colfax) on Monday last. The down trip is made in about one hour and 20 minutes. The route is picturesque and affords a very pleasant trip. The passenger car is essentially as comfortable as the broad gauge carriages. Cape Horn, on the C. P. R. R., comes in view as the narrow guage crosses the C. P., about one mile west of Colfax. This new railroad is a grateful blessing to the citizens of Grass Valley, who can now bid farewell to a very disagreeable stage route of nearly 20 miles. The track is now being laid between Grass Valley and Nevada. Fare from Grass Valley to Colfax, $1.70, a reduction of 80 cents on the late staging rates. Time table: Leave Grass Valley at 5:40 A. M. and 5 P. M. Leave Colfax, 7:30 A. M. and 7 P. M.

A Ride to Nevada City.—We are indebted to Mr. Chas. Barker and lady, of Grass Valley, for a pleasant ride between the above named places. Prominent evidences of improvements were observed on the route, including the Fryer reduction works and the Gold Race track homestead, lately purchased by the Fryer Co.; V flume company's terminus works on the divide, near the narrow gauge tunnel. The Idaho mine, under the superintendence of Mr. Coleman, is hoisting, crushing and successfully reducing between 500 and 600 tons of ore weekly, with as little noise and friction as any well regulated quartz mill and company can get along with. Nevada City still holds its leading position as one of the finest and most permanent mining and business towns in the State.

Liberal Terms for City Real Estate.—We would call especial attention to the advertisement of real estate at auction in Oakland in today's issue. City and country residents who wish to secure lots in Oakland at extreme low and favorable rates should not let the chance of securing property in that desirable city pass. Examine the property and be prepared to buy when the day of sale comes.

It is announced that Spain will be unable to pay any interest on the public debt before 1877.

Compositions of Ancient Style and Date.

Mr. Wm. S. Moses, of San Francisco, has furnished us the following quaint but "fair square" Centennial documents, executed, respectively, in 1769 and 1735, "the said" Ben and Tom Phelps being ancestors of our friend Moses, who proves his true Yankee type by various ingenious inventions, one of which is an improvement in tilting drawers, for which he has recently secured letters patent through the Mining and Scientific Press Patent Agency. Mr. Moses followed his father in wood working, but he informs us that their ancestors were blacksmiths. The anvil mentioned in the Scientific Press last week as being sent to the Centennial was "brought over" from England in 1732 by John Moses, the great-grandfather of William.

Know all men by these presents that I, Benjamin Phelps of Simsbury in the County of Hartford and Colony of Counecticut, for a valuable sum of money, viz. ten pounds lawfull money to me in hand paid received to my full satisfaction of Thomas Phelps of Simsbnry aforesaid, do remise, release and to farm lett unto him the said Thomas Phelps and to his heirs, and assigns, for, and dureing the full term of nine hundred and ninety nine years next ensuing, the one half of all the mines minerals mettles, and oars of mettles of what nature, kind or quality whatsoever, that or shall at any time hereafter during said term be found in any part, or parcels, of the lands which I have ever bought of him the said Thomas, in the bounds of Simsbury in the West Simsbury Society, with full liberty for him the said Thomas, his heirs or assigns, at any time, or times during said term, to enter upon the premises, to digg, scarch for, siuk shafts, work and separate any such oars or mettcis and with teems and carriages to carry away, all such oar, or mettles, & oars of mettles he or they shall find and raise on said laud, (only reserving to myself heirs & assigns at my own cost & labour, to carry on the one half of the business of raising oars, &c. as aforesaid for my & their own profit & use. To have and to hold the said remissed and released premises with the appurtenances thereof unto him the said Thomas Phelps his heirs & assigns without let suit claim henderance or moiesstation from the said Benjamin Phelps my heirs executors or administrators, or any other persou or persons from by or under me, in witness whereof I have hereunto set my hand and seal the 24th day of April, 1769.

Benjamin Phelps.

Signed sealed aud delivered in presence of Josiah Case, Abraham Case.

Windsor gvly 22d 1735 then received thomas phelps of windsor the svm of three Shilings money ltt being in full of all Debts bills bonds or any other acovnts whatsoever betwixt the sd phelps and alllu from the begiuing of the world to this Day as witness my hand

Alexr Allin.

Native "Zante Currants."—What can be accomplished in California, says the Stockton *Independent*, in the matter of producing dried currants, commonly known as the "Zante currants," or "raisins of Corinth," may in some measnre be understood by examining samples of the fruit left by W. B West for exhibition at the grocery store of H. S. Sargent, on Hunter street. The quality of the fruit appears superior to the best imported, and in point of cleanness the boxes far surpass the general average of the foreign article. Mr. West exhibits the samples mentioned with the view of drawing general attention to what promises to become a very important industry in this State. The dried currant of commerce is really a small grape, indigenous to the Ionian islands, from which immense quantities annually find their way to the markets of the world. About 3,000,000 pounds are annually imported into the United States, and our supply, as well as that of England and other European countries, is chiefly drawn from the Ionian islands, Greece and Turkey. From the success that has attended experiments in producing this fruit in California, it seems only reasonable to believe that in time, and only a very short time, a heavy current of trade in dried fruits must inevitably turn toward American possessions on the Pacific. Spain, Portugal and France do not surpass, if they equal California in the production of the grape, and the samples of our "Zante currants" produced at home, when compared with the foreign article, must at once convince any reasonable person that the Greeks and Turks will soon be compelled to play second fiddle to California in the business. We would invite consumers to call at Mr. Sargent's store and examine the samples there exhibited. When farmers perceive what can easily be accomplished in that direction, many of them may be induced to devote a portion of their lands to the culture of the white Corinth grape, the fruit of which is known as the "Zante currant," and it may be a satisfaction for them to know that West is propagating plants to supply the demand.

Sale of Farming Lands.

Lompoc.

The Lompoc Valley land company have decided to sell immediately 30,000 acres of the finest grazing and dairy lands. The lands now offered for sale are a portion of the Lompoc rancho, and constitute the famous Houdo region. A goodly portion of almost every tract is eligibly conditioned for farming, so that those who desire to combine dairying with stock raising and farming. can be suited or accommodated. The company ere another week will issue a circular containing the area and price per acre of each tract, thus facilitating sales.—*Lompoc Record.*

Keller & Co., of Sacramento, have sent us an advertising card, which came too late for this issue. It will appear in our next.

Frauds to nearly $200,000 have been committed in the Government printing, at Washington.

General News Items.

Don Carlos is said to be in America.

Another coast trade schooner is being built at North Beach.

Barney Williams, the well known actor, is dead.

The public schools will be closed from June 2nd to July 10th.

Congress is likely to adjourn or take a recess in July.

An insurrection is in progress in the island of Barbadoes.

Cardinal Antonelli's health is still reported very critical.

The Mstropolitian hotel at Long Branch was burned on Tuesday night.

Queen Victoria and Princess Beatrice have returned to England.

The Hungarian ministers have demanded further concessions from Austria.

Fresh Indian troubles in the Big Horn country by the Cheyennes are reported.

Dom Pedro II, Emperor of Brazil, arrived in this city on Tuesday evening.

The largest skating rink in the world has just been opened in the Bois de Boulogne.

Belknap states, in a private letter to a friend, that he has not confessed to any of the charges against him.

Counterfeit five-dollar pieces of gilded platinum have made their appearance in this city.

Some of the savings banks are charging from one per cent. per month for very short loans to nine per cent. per annum for long ones.

A subscription has been opened at Toulouse for a fund to send a delegation of workmen to the Centennial exhibition at Philadelphia.

The House Committee on Appropriations has agreed to the report of its sub-committee relating to the salaries of postmasters. It saves about half a million yearly.

Effect of High Postage on Printed Matter.—To show the absurdity of the present high rates of postage on third class mail matter, we publish the following from a recent issue of the Toronto (Canada) *Globe*:

A Detroit seed firm recently moved six and a half sacks of its catalogues to Windsor, Ontario, and there mailed them to persons in the United States, saving $3,170 by the transaction, or cheating the United States revenue, as some call it, out of that amount. The charge for what is known as "third-class mail matter" in the United States is four times as much as is charged for the same class in Canada. Under the late postal arrangement between the two countries, the United States and Canada each agree to take charge of the other's mails without charge. Hence the Detroit transaction.

The whole country, always excepting the express companies, demands a reduction in the rates, and the above affords a striking argument on the side of the people.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, Dewey & Co., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., April 25th, 1876.

For Week Ending April 11th, 1876.*

Passenger Registers.—Charles A. Washburn, Oakland, Cal.

Fruit Dryers.—William Aram, San Jose, Cal.

Ruby Pin Inseaters for Watches.—Carl H. E. Beckert, Oroville, Cal.

Movable Locking Types.—William H. Bell, S. F., Cal.

Chimneys.—Jeremiah Browell, S. F., Cal.

Wheel Plows.—Edmund C. Brown, Antelope, Cal.

Machine for Packing Fruit and Other Articles.—George W. Deitzler, S. F., Cal.

Sash Holders and Fasteners.—William A. Hawthorne, Carson City, Nev.

Couplings for Train Telegraph. — Andrew Ryder, Oakland, Cal.

Coal Screen and Shutes.—Byron La Count' Satterfield, Charles L. Chrisman and James McKinley, S. F., Cal.

Water Wheels.—Moses M. Staples, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

Note.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Renew Your Subscriptions.—With encouraging rains, good crop prospects, a rapidly increasing population, public improvements and new manufacturing and industrial enterprises springing up throughout the coast, we believe the ensuing year will be one of such progress and importance that no subscriber of the Press can afford to miss the record of events and discoveries which will be reported in the successive issues of this journal.

To the Editor of the Rural Press:

Dear Sir:—I have just made an experiment with prepared poison for killing squirrels. I put out a can each of the following poisons: A can of Bonney's, one of Steele's, and one of the article called Wakelee's Squirrel Exterminator; and one can of Wakelee's kills as many as seven of Bonney's squirrel poison, and as many as ten of Steele's squirrel poison. Thinking that the result will be interesting to your readers, I send it for their benefit.

Yours very respectfully,

S. P. WOODWARD.

Hayward, April 8th, 1876.

The New Willcox & Gibbs Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

American Manures, or Farmers' and Planters' Guide.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

The Threshers' Guide, by D. W. Holihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the Rural Press office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. Moulton, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

Be More Particular.—We can only make the changes requested by the following parties on our mail list, when they, or some one else, send us their P. O. address. Otherwise we would have to look over from 7,000 to 10,000 names. Frank Becker, O. Seawell, L. Boyer, M. Levis, F. Anson, and Antonia Byros.

We also want the address of Wm. Buck.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

Several First-Class Sewing Machines can be had at favorable rates to the purchasers, if ordered soon, from the Grangers' Business Association, N. E. Cor. Davis and California streets, S. F.

Unknown.—We have lately received cash at this office without due explanation, as follows: From Carson, Nev., $4, by express.

The senders will please give full address, date of sending, etc.

Bound Volumes of the Mining and Scientific Press from Jan. 1st, 1864, are for sale at this office at $4 per volume, two volumes a year. Unbound at $3 per volume.

Choice Volumes.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Sewing Machines.—We have a first-class machine we wish to dispose of on favorable terms. Apply at this office.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

Office and Address,

No. 166 TEHAMA STREET,

Cor. Third, bet. Howard and Folsom, San Francisco

eowbp

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, April 26th, 1876.

The general tone of the trado has been dull. Receipts of supplies hsve heen in the msin ahundant and prices have tended downward with weskness in some articles.

The Wheat trade is almost at a standstill. Tho cable, which scored a slight improvemcut at our last writing, took a downward course soon afterward, and yesterday dropped off 2d and 3d on different grades. The local trade has heeu very limited. Shippers are indisposed to invest and millers are generally well supplied and using little. A decline in Flour is the result of the depression in Wheat.

The course of tbe Liverpool quotations for Wheat to the Produce Exchange during the dsys of last week has heen as recorded in the following table:

Range of Cable Prices of Wheat.

	Cal. Average.			Club.		
Thursday	9s	9d@10s	1d	10s	3d@10s	8d
Friday	9s	8d@10s	—	10s	2d@10s	7d
Saturday	9s	8d@10s	—	10s	2d@10s	7d
Monday	9s	8d@10s	—	10s	2d@10s	7d
Tuesday	9s	7d@ 9s	10d	9s	11d@10s	5d
Wednesday	9s	7d@ 9s	10d	9s	11d@10s	5d

To-day's cahle quotations to the Produce Exchange compare with same date in former years as follows:

	Average.			Club.		
1874	12s	8d@12s	10d	13s	—@13s	2d
1875	9s	—@ 9s	3d	9s	4d@ 9s	9d
1876	9s	7d@ 9s	10d	9s	11d@10s	5d

The Foreign Trade.

The telegraphed review from the *Mark Lane Express* for April 25th is not favorable. It notes several interesting, though not very encourssging features of trade as follows:

"The temperature during the week, although low, recovered from tbe universal depression previously noticed, and vegetation recovered from its temporsry shock. In spite of the improvement in the aspect of the country after a hrief period of sunshine, the condition of the land is still very backward for this time of the year. Autumn sown crops, although hackward, make a fair show, and appear not to have suffered so much as was thought prohahle. The Wheat plant is somewhat thin and sickly on hcsvy lands, hnt with warm May weather will doubtless make fair progress, although heavy crops are hardly to he expected. The shipments of Wheat from Calcntta have formed a very marked feature in the trade this season, and the facility with which this class of grain can he sold shows that to the miller it must possess grinding qualities of no mean order. Add to this the fact that prices range a little over 40 shillings per quarter, and it must be patent that, with the enormous resources of land and cheap lahor in India, the prospect of selling English Wheat at an average of 50 shillings per quarter is rendered rather dubious. Now that such facilities are offered for the transit of Wheat from the East, the low class of grain from America and Rnssia is almost entirely neglected, and the influence thus brought to hear on the Bourse on prices is a mattor for hopeful consideration, as the samc quality of Calcutta Wheat has recently been taken from the continent. Flour millers there begin to appreciate the articlo, and the extension of the English trado in this direction may be possibly looked for. Tbe course of trado has undergone little change since our last weekly report, and Easter holidays have rendered transactions somowhat limited. Wheat has steadily maintained its lato prices, and there has been no appearance of improvement except for fine Wheat, quantities of which have been occasionally a little dearer."

Freights and Charters.

We have to report a little more doing in Charters. The following engagements havo been made for Wheat: Ship *St. John Smith*, 2,220, Wheat to Liverpool, July loading, £3 2s 6d; shlp *Agenor*, 1,487, Wheat to Liver. pool, £2 5s; ship *Iam O'Shanter*, 1,602, prior to arrival, Wheat to Cork at £3 5s, or if to Liverpool direct, £3 2s 6d, August loading; Fr bark *Tijuca*, 843, Wheat to Liverpool, £2 6s. There are now in this port 20 vessels disengaged, aggregating 17,454 tons. The *Commercial Review*, of this city, date of April 21st, reviews the situation in freights as follows;

"Wheat freights are dull, though the last two vessels were taken at the close for immediate loading at an advance, but the rates paid in this instance cannot strictly be considered as snowing any improvement in the market. More or less of the ships now here or shortly to arrive are, from various causes, under the necessity of accepting present rates, or a slight advance, and there exists no scarcity of ships for immediate loading. The majority of the vessels to arrive shortly will, without doubt, wait for the opening of the new season; and altbough the amount of tonnage in port to-day is hy no means as large as at this time last year, there is a fair amonnt to arrive during the next two months, and the cereal year of 1876-77 will commence with a moderate supply. There are many ships known to be on the way, and of these it is fair to presume some few are coming under charter. Regarding engagements for next season's Wheat crop very little is being done outside of what has been reported. It is reported that a large number of ships to arrive are offered at £3 5s to Liverpool direct, but the few parties here disposed to charter are now unwilling to pay over £3 for wooden and £3 2s 6d for iron vessels, and even at these rates there is no disposition to take up a large line of ships. There is now 7,844 tons engaged Wheat tonnage in port for immediate loading, and 3,822 tons for the new crop."

Our Wheat Fleet.

All the Wheat vessels that sailed prior to December 1st have now arrived out, with the exception of the *Quillotta*, hence November 4th; while of the 20 vessels cleared in December, 10 have reached their destinations, together with one of the January fleet.

The Eastern Wheat Crop.

The Chicago *Inter-Ocean* of April 20th publishes crop reports from 200 points in Indiana, Michigan, Ohio and Pennsylvania, where the bulk of winter Wheat is growu. In a few counties in Illincis the wheat threatens to prove a failure, but by far tbe majority of the reports are encouraging. Michigan and Pennsylvania report excellent prospects for spring, but unfavorablo for winter Wheat.

Movement of Oregon Wheat.

Advices from Astoria, Oregon, to April 22d, report the sailing of five Wheat ships for the United Kingdom between the 18th and 22d of April. These are the *Chloe, Hindostan, Samuel Watts*, *Trojan* and *Zephyrus*. The *Samuel Watts* and *Trojan* have been loaded for some time, hut being large vessels, and drawing upwards of 22 feet, there has been some hesitancy about crossing the har; but soundings recently made by the steamer show that there has been no cause for delay. The Wheat sailings from Oregon for the current season up to date comprises 64 vessels, of which 25 are known to have arrived out in safety, leaving 29 cargoes afloat, or to be accounted for. There are several vessels yet to ssil, including tho *Caller Ou, River Lune, Wave Queen* snd *W. H. Thorndike*. The last named takes Flour, and we presume she has completed cargn ere this.

Our Barley Trade.

According to New York trade authorities our Barley trade for last crop with the Esst has not been profitablo to those engaged in it. The New York *Commercial List* says:

"The speculators in Barley this year have badly burned their fingers. The markot recently has been very unsettled, weak and declining in view of the considerable amount of stock on hand at or near the closo of the season for malting. Henco there has been a competition among the holders to dispose of tbeir stock bought last fall and winter at much higher values, in expectation of an increased demand from the malsters to supply a corresponding increase in the demand for malt from hrewers, who were expected to make a larger amount of stock alo and lager this winter than usual, in anticipation of an increased demand for those heverages during the Centennial. Upon this, s speculation in Barley was based that has resulted in large loss to the speculators, hecause of the mild winter, which has prevented largely the brewing of stock for future use, at the same timo that the mildness of the weather has put up ice to so much higher prices than last year, that the two csuses combined have frustrated a speculation that to appearance had a good bssis. The loss, according to the New York *Bulletin*, is said to he from $3,000@$5,000 per hoat load of 10,000 hushels of Canada Barley. The importation of California at this port was a losing operation."

Domestic Produce.

The following table shows tho bay receipts of Domestic Produce for the week, ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week April 5.	Week Apr. 12.	Week Apr. 19.	Week Apr. 26.
Flour, quarter sacks	56,790	32,220	25,134	21,026
Wheat, centals	63,659	27,009	89,159	42,941
Barley, centals	8,756	11.872	8,724	23,260
Beans, sacks	521	1,091	1,138	763
Corn, centals	54	1,497	541	.....
Oats, centals	2,197	4,615	1,171	4,910
Potatoes, sacks	7,351	10,500	5,862	11,209
Onions, sacks	744	1,414	163	801
Wool, bales	2,391	3,769	4,289	7,767
Hops, bales	87	149	15	90
Hay, bales	1,012	1,292	1,257	1,310

Bags—Quotations for Bags are unchanged. The range seems to he 12@12½c for Standard English Wheat; the range of price heing for spot or future delivery. We are informed of sales of 100,000 Wheat Bags at 12¼c spot; 250,000 do at 12½c to arrive.

Barley—Barley is plentiful and weak. We note sales: 1,000 sks Feed, in three lots, $1.17½ for dark Coast, to $1.25 for bright bay Feed; 1,000 sks ordinary Coast Feed $1.15; 100 do good do, $1.17½; 200 do choice do, $1.20; 300 sks good Feed, $1.25; 445 do bay Feed, $1.20; 1,000 do Coast Feed, $1.16¼; 385 sks dark Cosst Feed, $1 17½; 775 do good do, $1.20; 400 do bright Feed, $1.25; 215 sks good Coast Feed, $1.17½; 1,400 sks bay Feed at $1.22¼, half silver; 400 do choice Coast do, $1.15 ₱ ctl.

Beans—Beans are gencrally unchanged. Bayo Beans are exceedingly scarce and sales have been made at $4@$4.50 ₱ ctl.

Corn—Corn has ruled lower. We note sales: 200 sks fair White, $1.10; 500 sks good large Yellow at $1.17½, gold; 150 sks good large Yellow at $1.17½ ₱ ctl.

Dairy Produce—Prices are generally unchanged. Snpplies are ample and the trade is fair. Cheese is coming in freely.

Eggs—Eggs are more abundant and bring to-day 27½c.

Fish—The catch of Salmon st the present time is very large, and the market is overstocked. The retail rate has declined to 5c ₱ lb, and a whole Fish weighing 25 lbs is sold for 50c. All the other varieties are cheaper.

Fruit—Strawberries are more plenty and lower.

Hay—Hay maintains the range from $13 to $19 ₱ ton. Choice Wheat commands tho high figure and is scarce. We note sales: 49 tons good Wheat and Oat $13; 60 do do, $13.50; 38 do good Wheat, $14; 40 do choice Wheat and Oat, $14.50; 44 tons poor Volunteer, $12.76; 15 do fair Wheat, $16; 75 do choice Wheat, $19 ₱ ton.

Hops.—Hops are still dull. We note a sale of 30 bales choicest Russian River to a brewer at 15c, but this is a special rate. The New York markct is reviewed by Emmet Wells for the week ending April 14th as follows:

"Under the influence of continued liberal call for export, and comparatively light receipts, prices have been well sustained, and the general msrket has a very healthy tone. Eighteen cents has been freely paid for choice shipping Hops, though very little of this stock is on offer, holders refusing in most cases to sell.

"We estimate that there is a supply on hand to-day of 20,000 hales in the country and 12,000 bales in this city —total, 32,000 bales. Our brewers will want at least 17,000 hales more to csrry thom down to the new crop; which, added to what they have already had, will make a consumption of 80,000 bales for the season. Now sdd exports, 45,000 bales, and we have a total of 125,000 hales; leaving a surplus of 15,000 bales to carry over into the new season, provided no more Hops are shipped to Europe. The consumption may reach 5,000 or 10,000 more thsn we have it, though if one could hear brewers complain of the dull times, slow sales and poor collections, 80,000 bales might be considered nearly correct."

Oats.—Oats have been received in largor amount, largo shipments coming in from Orogon. The markc to-day is weak. The sales during the week havo been as follows: 100 sks fair, $2.25; 200 sks Omaha, $2.20; Oregon, $2.50@$2.75; 100 sks Petaluma, $2.25, gold; 100 sks good coast, $2.25; 200 do choice Omaha, $2.20. Choice heavy milling lots sell up to $3 ₱ ctl.

Onions.—Onions are weaker, although quotations are unchanged.

Potatoes.—Potatoes are in large supply. There is an overstock of poor quality, which may be bought at almost any offer. Prices are generally lowor. We note sssles: 300 sks Salt Lake at $2.07½; 300 sks poor Petaluma at $1.12½; 120 do good do, $1.80; 175 do fair Tomales, $1.50@$1.75; 50 do extra choice do, $2; 50 sks choice Petalums, $1.95; 100 do good do, $1.87½; 100 sks fair Southern Coast, $1.37½; 250 sks choice Petalumа, $2; 140 do fair do, $1.80; 400 do fair to choice Tomales, $1.80@$2; 400 do Salt Lake, $2@$2.10. The 3,400 sks Humboldt received per *Pelican* are generally poor, quotable at $1.80@$1.90 ₱ ctl.

Provisions—Tho Provision trade is reported dull. Pork is better. Milk Calves are lower, as shown in our tables of prices.

Vegetables—Asparagus, Green Peas and Rhubarh are very plontiful aud cheap. Cucumhers are coming forward from several points, and havo declined to 75c@1.25 per doz.

Wheat The extremo dullnesss which prevails this week has restricted sales. We retain quotations, but they are nearly nominal throngh small trsde. We note sales: 700 ctls Inferior at $1.50; 200 choice Milling at $1.80; 1,500 sks choice Stockton, slightly weovily, to a miller, $1.80; 800 do fair Coast, $1.50; 200 do good do, $1.65; 2,000 ctls fair Milling at $1.80; 4,000 sks good Milling, $1.82½; 1,600 sks choice Shipping at $1.82½; 520 sks mixed with Barley, $1.52½ per ctl.

Wool—Tho receipts of Wool are rspidly increasing, and the market, this week, is weak. Tho April receipts promise to he in full amount, although the movement hegan later this year. The extreme price quotable today is 18c. We note sales of 175,000 pounds at 12½@18c, and 130,000 pounds San Joaquin, 6. and 12 mos, clip, at 15@16½c. The two clips have sold at nearly the same rates, as the 12 mo Wool lacks in quality nearly what the six mo lacks in length, and the two hslance. From the East unfavorable advices are received. We are told again that the Eastern markets do not warrant opening prices in S. F. The telegraphed markets are as follows:

New York, April 22d. The condition of the Wool market is the same in every respect that it was st the close of last week. Buyers are scarco and holders still show a disposition to force millers to rid themselves of the supply of old stock. This, however, is no easy matter, for the reason that the manufacturers who have credit are cautious in their purchases and confine themselves to their present necessities, and offers of good Wool at low prices do not in the least induce them to cross the line they have drawn. To state when this condition of things will cease to exist, will he to attempt something that is utterly impossible. The whole trouble lies in the matter of over-production. The country is well supplied with goods, from one end of it to tho otber, and the export demand is narrowed down to very small proportions. To-day, at least two-thirds of tho machinery of the country is idle, owing to the limited outlet for the product of the looms. Of recent arrivals of new spring California Wool, some 90 hales were sold on Thursday at ahout 24 cents. Holders, however, ask as high as 26 cents for choice lots. The sales for the week are 100 bales Australian, at about 40c; 17,000 lbs. spring California, 19@25c; 9,000 lbs. fall do, 14c; 16,000 lbs. Western Texas, 21@26c; 15,000 lbs. Eastern do, 26c; 1,000 lbs. super pulled, 40c.

Boston, April 23d.—Tho Wool market is dull. Prices continue to rule in favor of buyers, but the present low rates have caused rather more inquiry from large purchasers. Rather more is doing in fleece Wool than last week. In California Wool a fair business is doing, but at low prices. A desirable lot of 5,000 lbs. new spring Wool sold at 27c, and other good lots of spring at 23@25c. In pulled Wools a moderate husiness was done. Sales during the week include 126,000 lbs, principally from 37@45c for good average lots of superfine, and 38@40c for extra. Tho stock is large, snd low supers are neglected.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., April 26, 1876.

BEANS.			
Bayo, ₱ ctl	4 00	@	4 50
Butter	2 00	@	2 50
Pea	1 75	@	2 12½
Pink	—	@	2 50
Sm'l white	1 85	@	2 00
Lima	2 37½	@	2 40
BROOM CORN.			
Common, ₱ lb	2	@	3
Choice, do	4	@	5
COTTON.			
Cotton, ₱ lb	15	@	18
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Fresh Roll per lb	22½	@	27½
Point Reyes	—	@	30
Firkin	25	@	27½
W'st'n Reserve	16	@	20
New York	—	@	—
CHEESE.			
Cheese, Cal., lb	13	@	16
do Old	10	@	15
Eastern	15	@	18
EGGS.			
Cal. fresh ₱ doz	27½	@	—
Ducke'	—	@	25
Oregon	22½	@	25
Eastern	20	@	22½
FEED.			
Bran, per ton	—	@	20 00
Corn Meal	29 00	@	30 00
Hay	13 00	@	19 00
Middlings	25 00	@	—
Oil cake meal	—	@	37 50
Straw, ₱ bale	50	@	60
FLOUR.			
Extra ₱ bbl	5 50	@	6 00
Superfine	4 75	@	5 00
FRESH MEAT.			
Beef 1st quality ₱ lb	7	@	8
Second do'	4	@	4½
Third do	2½	@	3
Spring Lamb	6½	@	7
Mutton	4	@	4½
Pork, undressed	8¼	@	8¾
do, dressed	11½	@	12
Veal	5	@	7
Milk Calves	6½	@	7½
GRAIN, ETC.			
Barley, feed ctl	1 17½	@	1 25
do brewing	1 30	@	1 32½
Chevalier	1 25	@	1 45
Corn, White	1 10	@	1 17½
do Yellow	1 10	@	1 17½
Oats	2 15	@	2 65
Milling	—	@	3 00
Rye	1 75	@	1 80
Wheat shipping	1 75	@	1 85
do milling	1 85	@	1 90
HIDES.			
Hides, dry	13	@	15
do wet salted	6	@	6½
HONEY, ETC.			
Beeswax, per lb	25	@	27½
Honey in comb	12½	@	15
do Strained	8	@	13
HOPS.			
New crop	10	@	13
NUTS—Jobbing.			
Almonds hd sh'l lb	8	@	10
do, soft sh'l	16	@	18
Brazil do	14	@	16
Cal. Walnuts	7	@	11
Chile Walnuts	11	@	12½
Peanuts per lb	9	@	10
Filberts	15	@	16
Pecannts	17	@	18
ONIONS.			
Union City ctl	2 50	@	3 00
Stockton	2 50	@	3 00
POTATOES.			
Petaluma, ₱ ctl	1 50	@	2 00
Salt Lake	2 00	@	2 05
Sac River	1 50	@	2 00
Humboldt	1 75	@	2 00
Early Rose	3 00	@	3 25
Sweet	—	@	—
New, lb	3	@	4½
POULTRY & GAME.			
Hens, per dz	9 00	@	10 00
Roosters	—	@	11 00
Broilers	6 00	@	8 00
Ducks, tame, dz	8 00	@	9 00
do Mallard	—	@	5 00
do Canvass	—	@	5 00
Geese, per pair	2 00	@	—
Wild Gray dz	3 00	@	4 00
White	1 50	@	2 00
Turkeys, Live, lb	23	@	24
do Dressed	24	@	27
Quail, per doz	—	@	—
Snipe, Eng., doz	2 00	@	2 50
Doves, per dozen	50	@	75
Rabbits	1 00	@	1 50
Hare, per doz	1 50	@	2 00
PROVISIONS.			
Cal. Bacon, L't, lb	16½	@	17
do Medium	16	@	16½
do Heavy	—	@	15½
Lard	15	@	17½
Cal. Smoked Beef	9	@	10
Eastern do	—	@	12½
East'n Shoulds	—	@	10
Hams, Cal	14	@	14½
do Armour	15½	@	16
do Worster'e	16	@	16½
do Dupee's	16	@	16½
do Davis Bros'	16	@	16½
SEEDS.			
Alfalfa, Chile lb	8	@	10
do California	11	@	12
Canary	18	@	20
Clover Red	—	@	25
do White	50	@	55
Cotton	6	@	10
Flaxseed	—	@	3½
Hemp	12½	@	—
Italian Rye Grass	25	@	30
Perennial do	20	@	30
Millet	10	@	12
Mustard, white	3	@	3½
do, Brown	3	@	3½
Rape	7	@	9
Ky. Blue Grass	33	@	—
do 2d quality	29	@	—
do 3d quality	—	@	—
Sweet V Grass	—	@	75
Orchard do	30	@	35
Red Top do	—	@	25
Hungarian do	8	@	12
Lawn do	50	@	—
Mesquit do	20	@	25
Timothy	11	@	13
TALLOW.			
Crude, ₱ lb	7	@	7½
Refined	9	@	10
WOOL, ETC.			
SPRING—			
Soudy, ₱ lb	11	@	12½
Choice long free	17	@	18
do short	11	@	14½
Burry	—	@	12½
Oregon	—	@	—

GENERAL MERCHANDISE.

[WHOLESALE.]

Wednesday M., April 26, 1876.

BAGS.			
Eng. Stand Wht	12	@	12¼
Neville & Co's			
Hand Sewed	12	@	12½
24x36	—	@	—
24x40	—	@	—
Machine do 24x36	13	@	14
" " 22x40	12½	@	13
" " 22x40	11¾	@	12½
" " 22x36	11	@	11½
Flour Sacks ½s	9½	@	11
" " ¼s	6¼	@	7
" " ⅛s	4¾	@	5
Hessian 60-in	12¼	@	14½
do 45-in	9½	@	10
do 40-in	8	@	8½
Wool Sacks, 2½ lbs	45	@	50
do 4 "	50	@	52½
Stand. Gunnies	—	@	18
single seam do	—	@	—
Bean Bags	7½	@	8
CANNED GOODS.			
Asst'd Pie Fruits in 2½ ₱ cans	2 75	@	3 00
do Table do	3 75	@	4 25
Jams & Jellies	1 25	@	—
Pickles ½ gl	—	@	3 50
Sardines, qr box	85	@	1 00
do hf boxes	3 00	@	—
COAL—Jobbing.			
Australian, ₱ ton	—	@	10 50
Coos Bay	8 00	@	10 00
Bellingham Bay	—	@	8 50
Seattle	9 25	@	10 50
Cumberl'd	—	@	18
Mt. Diablo	6 25	@	8 25
Lehigh	—	@	22 00
Liverpool	10 00	@	11 00
West Hartley	—	@	14 00
Scotch	9 00	@	11 00
Scranton	13 00	@	16 00
Vancouver's Isl	10 50	@	12 00
Charcoal, ₱ sk	75	@	—
Coke, ₱ bbl	—	@	60
COFFEE.			
Sandwich Island	—	@	21½
Costa Rica per ₱	22½	@	—
Guatemala	—	@	22½
Java	—	@	31
Manilla	—	@	21½
Ground in ce	25	@	—
Chicory	27	@	—
FISH.			
Sac. Dry Cod, new	1	@	4½
cases	6	@	7
do boneless	8½	@	10
Eastern Cod	7½	@	8
Salmon in hbls	7 00	@	8 00
do ½ hbls	3 75	@	4 00
do 2 ₱ cans	2 25	@	2 40
do 1 ₱ cans	1 25	@	1 40
do Col. R.	5 00	@	5 50
Pick. Cod, bbls	22 00	@	—
do ½ bbls	11 00	@	—
Mack'l, No. 1, ½ bbls	12 50	@	13 00
" Extra	—	@	12 00
" in kits	2 20	@	2 75
" Ex meee	4 00	@	4 50
" Ex mess, ½ bbs	—	@	12 00
Pic'd Herr'g, hx	3 00	@	3 50
Bos. Sm'k'd Her'g	40	@	50
LIME, ETC.			
Lime, S'ta Cruz, ₱ bbl	2 00	@	2 25
Cement, Rosendale, do	2 75	@	3 50
do Portland do	4 75	@	5 50
Plaster, Goldeu Gate Mills	3 00	@	3 25
Land Plaster, ₱ ton	10 00	@	12 50
MISCELLANEOUS.			
Pulu	—	@	7½
NAILS.			
Assorted size, keg	3 75	@	4 00
OILS.			
Pacific Glne Co Neat F't No. 1.1	00	@	90
Pure	—	@	—
Castor Oil, No. 1	—	@	1 15
Baker's A A	—	@	1 15
Cocoanut	52	@	55
Olive Plagniol	5 50	@	5 75
do Possel	4 75	@	5 00
Palm lb	9	@	—
Linseed, raw	—	@	70
do hoiled	—	@	75
Cbinanut in oe	65	@	67½
Sperm, crude	1 60	@	1 65
do bleached	1 90	@	2 25
Coast Whalee	47½	@	50
Polar, refined	—	@	50
Lard	—	@	1 20
Oleopbine	—	@	28
Devoe's Bril't	25	@	27
Long Island	—	@	25
Eureka	26	@	27
Devoe's Petro'm	25	@	—
Barrel kerosene	23	@	25
Olivo	—	@	3 50
Downer Kerose'e	—	@	37½
Elsine	37½	@	—
Gas Light Oil	23	@	25
PAINTS.			
Pure White Lead	9¾	@	10¼
Whiting	—	@	1¼
Putty	1	@	5
Chalk	—	@	1½
Paris White	—	@	2½
Oebre	—	@	3½
Venetian Red	—	@	3½
Red Lead	10	@	11
Litharge	10	@	11
Eng. Vermillion	—	@	1 25
Averill Chemical Paint, per gal. White & tints	2 00	@	2 50
Green, Blue & Ch Yellow	3 00	@	3 50
Light Red	3 00	@	3 50
Metallic Roof	1 30	@	1 50
RICE.			
China No. 1	6 00	@	—
Hawaiian, ₱ lb	7½	@	7¾
Carolina, ₱ lb	10	@	—
SALT.			
Cal. Bay, per ton	10 00	@	14 00
do Common	5 00	@	7 00
Carmen Island	12 00	@	15 00
Liverpool fine	22 50	@	25 00
SOAP.			
Castile ₱ lb	10	@	11¼
Common brands	4½	@	6
Fancy do	7	@	9
CANDLES.			
Grant's	16½	@	17
Mitchell's	20	@	22
SPICES.			
Cloves ₱ lb	45	@	47½
Cassia	23½	@	26½
Citron	28	@	30
Nutmegs	95	@	97½
Whole Pepper	14½	@	15
Pimento	16	@	17
Gr'nd Allsp'ce dz	—	@	1 12½
do Cassia do	—	@	1 50
do Cloves do	—	@	1 50
do Mustard do	—	@	1 20
do Ginger do	—	@	1 00
do Pepper do	—	@	1 00
do Mace do	—	@	2 00
Bowen's Pure Ground ₱ lb	—	@	50
SUGAR, ETC.			
Cal. Cube per lb	—	@	12
Circle A crushed	—	@	12
Powdered	—	@	12½
Fine crushed	—	@	12
Granulated	—	@	11¾
Golden C	—	@	10½
Hawaiian	10	@	11
Cal. Syrup in kgs	—	@	70
Hawaiian Molasses	25	@	27½
TEA.			
Oolong, Canton, lb	19	@	25
do Amoy	28	@	50
do Formosa	40	@	80
Imperial, Canton	25	@	40
do Pingsuey	45	@	80
do Moyune	60	@	1 00
Gunpo'der, Cant	75	@	1 00
do Pingsuey	50	@	80
do Moyune	65	@	1 25
Y'ng Hy., C'nton	28	@	40
do Pingsuey	40	@	70
do Moyune	65	@	85
Japan, ½ chests, bulk	30	@	75
Japan, lacquered bxs, 4½ and 5 lbs	45	@	67
Japan do, 3 ₱ bxs	45	@	90
do pl'n bx, 4½ lb	35	@	65
do ½ ₱ lb paper	30	@	55
TOBACCO—Jobbing.			
Bright Navys	50	@	65
Dark do	50	@	55
Paces Tin Foil	—	@	75
Gregory	70	@	—
Dw't Twist	65	@	75
Light Pressed	70	@	80
Hard do	50	@	60
Conn. Wrap'r	40	@	60
Penn. Wrapper	20	@	45
Ohio do	15	@	20
Virgi'a Smok'g	45	@	1 00
Fine ot cbe'g, gr	8 50	@	9 50
Fine out chewing, buc'ts	75	@	—
Banner fine cut	—	@	90
Cal Smoking	75	@	1 00
TURPENTINE.			
Eastern	51½	@	55

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday M., April 26, 1876.

FRUIT MARKET.			
Oranges Mex. ₱ M	—	@	—
Tahiti, do	30 00	@	35 00
Cal. do	30 00	@	80 00
Limes, Mexican. ₱ M	10 00	@	—
Malaga Lemons, ₱ box	—	@	—
Cal. ₱ 100	2 00	@	3 00
do Sicily ₱ bx	9 00	@	—
Bananas, ₱ bnch	2 50	@	4 00
Cocoanuts, ₱ 100	6 00	@	7 00
Pineapples, ₱ dz	6,00	@	—
Apples, ₱ box	1	@	3
do Choice	2	@	4 00
Blackberries	—	@	—
Figs	—	@	—
Huckleberries	—	@	—
Strawber's ₱ lb	12	@	15
Pomgranates	—	@	—
Raspberries	—	@	—
Currants, ₱ oh	—	@	—
Quinces ₱ box	—	@	—
Cranberries ₱ bbl	13 00	@	14 00
Peaches, ₱ bx	—	@	—
Pears, ₱ bx	1 75	@	3 00
do Choice	—	@	—
Crab apples, ₱ bx	—	@	—
DRIED FRUIT.			
Apples, ₱ lb	9	@	12½
Peare, ₱ lb	8	@	13
Peaches, ₱ lb	12	@	12½
Apricots, ₱ lb	14	@	15
Plums, ₱ lb	5	@	6
Pitted, do ₱ lb	17	@	22
Raisins, imported	3 25	@	3 75
Cal. Raisins	5	@	10
Black Figs, ₱ lb	5	@	10
White, do	12½	@	15
Prunes	12½	@	17
Citron	28	@	30
Zante Currants	9	@	10
VEGETABLES.			
Asparagus ₱ box	1 00	@	1 50
Beets ₱ ctl	—	@	—
Cabbage, ₱ 100 lbs	1 00	@	1 25
Carrots, per ton	12 50	@	15 00
Cauliflower, doz	1 00	@	1 25
Celery, doz	50	@	1 50
Garlic, ₱ lb	—	@	5
Green Peas ₱ lb	2	@	3½
Green Corn ₱ doz	—	@	—
Sqnash'rSquash ₱ lb	—	@	—
Marro'fat Sqsh, tn	20 00	@	25 00
Artichokes, ₱ doz	—	@	—
String Beans, ₱ lb	—	@	—
Lima Beans	—	@	—
Parsnips	—	@	—
Shell Beans	—	@	—
Peppers, green, bx	—	@	—
Okra	—	@	—
Cucumbers, ₱ doz	75	@	1 25
Tomatoes, box	—	@	—
Egg Plant, bx	—	@	—
Rhubarb	2½	@	5
Lettuce	—	@	—
Turnips, per ctl	75	@	1 00
Mushrooms, lb	—	@	—

RETAIL GROCERIES, ETC.

Wednesday M., April 26, 1876.

Butter, Cal. ch'ice	30	@	37
Cheese, lb	18	@	30
Eastern	25	@	30
Lard, Cal., lb	—	@	18
Eastern	20	@	25
Flour, ex. fam. bbl	6 25	@	6 50
Corn Meal, lb	2½	@	3
S

Useful Information.

Utilization of the Suds from the Washing of Wool.—In nothing has the advance of practical science been more clearly evidenced than in the extent to which substances formerly wasted and lost are now reclaimed and made to constitute an important element in the profits of the manufacturer. One of these applications consists in the recovery of the soapsuds from the washing of wool in woolen factories. These were formerly allowed to run down the sewers and into the streams, to the great pollution of the latter; but in Bradford, England, they are now run from the washing bowls into vats, and there treated with sulphuric acid. The fats rise to the surface in a mass of grease a foot or more in thickness, which is carefully collected and treated in various ways, mostly by distillation. The products are grease, used for lubricating the cogs of driving wheels in the mills; oleic acid, which is worth about $160 per ton, and used as a substitute for olive oil; stearine, worth $400 per ton, etc. It is said that some large mill owners are now paid from $2,500 to $5,000 a year for these suds, which a few years ago were allowed to run to waste.

Sham Coffee.—We learn from a statement in the *Journal of the Chemical Society* that sham coffee is manufactured from tough dough, squeezed into little molds and baked until the color becomes dark enough to deceive the eye. Real coffee berries, when small and worthless, are improved in color by rolling them about with leaden bullets in a cask. The green berries, too, are treated by a coloring matter. In coffee sold really ground, the difficulty of detecting adulterations is greatly increased; beans, beet root, carrots, and carrot-like roots are roasted and mixed in large quantities with the genuine article. In the south of Europe, especially in the provinces of Austria, figs are roasted in enormous quantities and sold as coffee.

Save your Soapsuds.—Who would throw away a barrel full of soft soap or a box of hard soap? Were it not otherwise useful, it would be of great value as a fertilizer. But, after being dissolved in water and passing through the wash tub, gleaning the imperceptible elements of the best manure from soiled linen, its fertilizing power is vastly increased. Indeed, we may almost say that the average soapsuds from the kitchen and laundry is worth more than the soap which produces it.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,

19 New Montgomery Street, S. F.

☞Grand Hotel Building.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

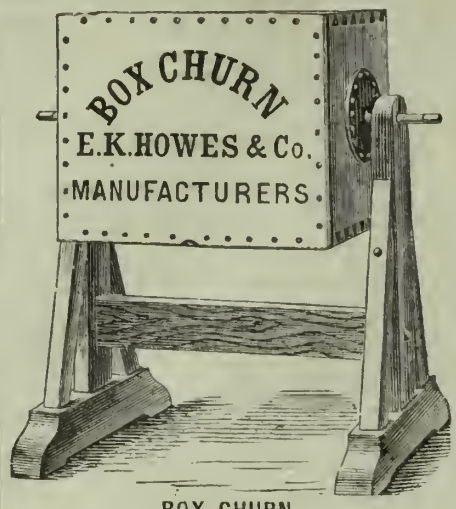
The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, some fine Graded Cattle.

JOHN BREWSTER,

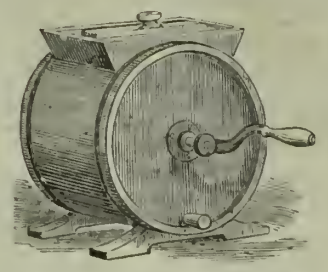
Galt, Sacramento Co., Cal

E. K. HOWES & CO.,

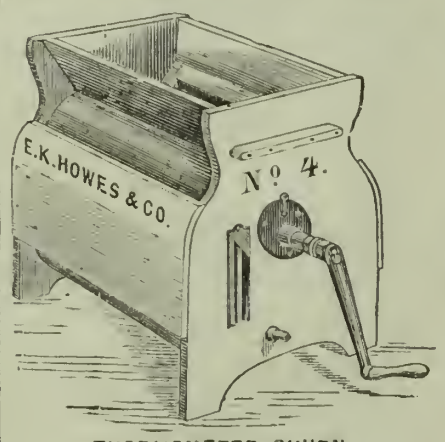
NOS. 118, 120 and 122 FRONT STREET, - - - - SAN FRANCISCO.



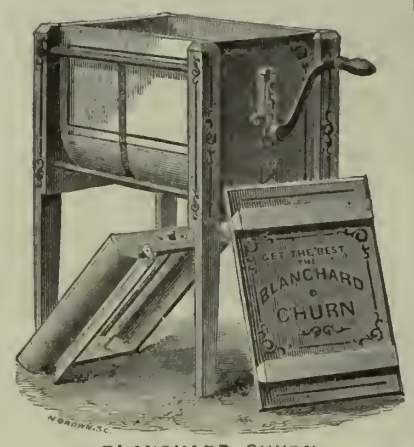
BOX CHURN.



CYLINDER CHURN AND DASHER.



THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers and Molds. Butter Tubs, (35, 50 and 60 Pounds), Butter Kegs—Plain and Gal. Hoops—Wholesale and Retail

Send for Price-List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired.

RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

Not a Valve, Spring, Cam, Lever or Eccentric about them.

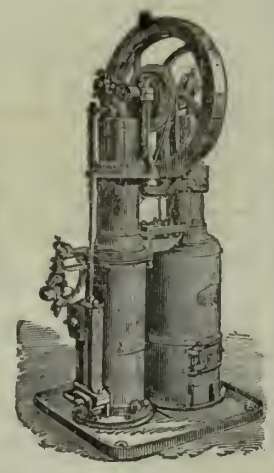
ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.

Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

Send for Circular and Price List, or call and see one in operation.

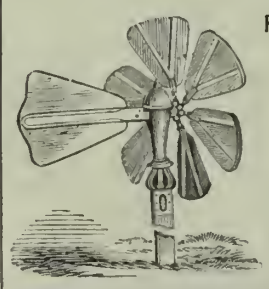


HUNTINGTON, HOPKINS & CO.,

Sole Agents for the Pacific Coast,

Junction of Bush & Market Sts., S. F.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair, makes it grow thickly on bald places, and eradicate scurf and dandruff; has been in use all over the world for the last seventy five years. ROWLANDS' ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

Ladies' Department.—Ladies will be admitted for instruction in all the Departments of the College.

Telegraphic Department.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petalnma, Sonoma Co., Cal

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees. Pot Plants, and Hardy Ever green Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.: Fine assortment of Camellias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

BLOOMINGTON NURSERY, F. K. Phœnix, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes. They "*now like a charm*;" *no packing* of seed in the hopper, *no crushing* it, *no pausing* or *waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, *no "skips," no noise, no equal!* The Double Wheel Hoe works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable Combined Machine possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our New Horse Hoe, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. We must have a Live Agent in Every Town.

GEO. P. ROWELL & CO.

ADVERTISING AGENTS

41 PARK ROW, N.Y.

The Mining and Scientific Press,

Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the Best Practical Mining and Mechanical Journal in America. $4 per annum, postage paid. Dewey & Co., San Francisco.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

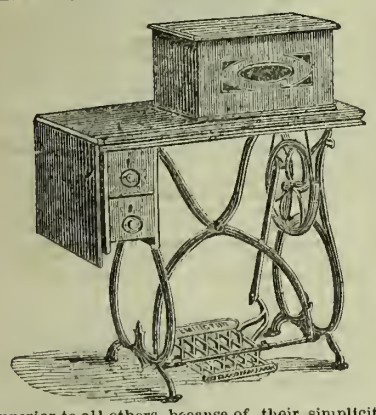
ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco

---

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

No AGENTS are authorized to receive subscriptions to this paper at less than our advertised rates.

GORHAM SEEDERS AND CULTIVATORS COMBINED

In Sizes from 6 to 14 Feet Long. The Only Reliable Combined Broadcast Seeder in Use. Will Seed and Cultivate from 12 to 35 Acres a Day.

MOWERS.

Excelsior, "Junior and Medium," Russell's "Peerless" Mowers, Ætna Mowers, Wood's Mowers, Meadow Lark Mowers. The leading Machines of the day at prices below all others.

Reapers.

Excelsior "Dropper," Wood's "Sweepstakes," Russell's and Ætna Side Rakes.

HAINS' HEADERS.

The perfection of these Headers can only be appreciated when seen. They combine all that is valuable in other makes, besides many improvements to be found on no other. Don't fail to see them; you will save money and get the best. Also TREADWELL'S SINGLE GEAR PATENT REEL HEADER.

COATES' LOCK LEVER RAKE,

Awarded the First Premium at State Fair last fall as the best steel tooth hay rake.

Sulky Revolving Rakes,

Just the Rake for all kinds of Grass.

HEADER WAGONS,

Both Iron Axles and Thimble Skeins.

J. I. CASE & CO.'S 18-Horse Engines.

These celebrated and powerful Engines, so complete in all their parts, fresh and new from the factory, will be sold very cheap. We are prepared to give these Engines any kind of test to show their power over other make with less fuel.

40-INCH SEPARATORS.

We want all interested parties to look at our Separators, believing they will see the most perfect Thresher ever imported, at less figures than ever sold here.

Halladay's Windmill.

Over 130 different railroads are using them. They are the standard mill the world over. We sold more windmills last season than has ever been sold by one house on this coast in the same length of time. We have found by dear experience that Mills that have no rudder are unsteady and flop around, literally wearing themselves out, and at the same time do but little work: besides, are liable to blow down: we can furnish any size from eight feet to 60 feet in diameter, from one to 40-horse power, and guarantee them for five years.

It will pay all who are looking with a view of making selections among the different lines of Implements to see our stock, and get the lowest ruling prices. Our stock embraces everything in the Agricultural Implement line. Send for Price List and Catalogue.

KELLER & CO.,

43, 45, 47 J Street, Sacramento, Cal.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

Dewey & Co. {224 Sansome St} Patent Agt's.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

H. K. CUMMINGS. 1858. H. H. RALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

McCormick's Mowers and Reapers.

☞FARMERS wanting to purchase Mowers or Reapers this season will serve their own interest by examining the McCormick Machines before purchasing. Every McCormick Machine sold is guaranteed to give satisfaction to the purchaser, if correctly set up, or purchase money returned.

McCormicks' character as the inventor of the Reaping Machine is national. Their experience in the manufacture of Mowing and Reaping Machines, and improving them, extends over the past thirty years. Their facilities for manufacturing are the most complete, and the capital invested in the business the largest of any manufacturers in their line in the world. This of itself is a safe guarantee to those who patronize them that they will be well treated.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

"The Public Lands of California."

The demand for this new work is steadily increasing, and the more widely that its merits are becoming known, its usefulness to everyone is becoming more fully domonstrated. The map of California and Nevada alone is worth more than fifty cents, the price asked for the work, and the fact that a glance at its pages shows the leading products, population, etc., of each county in the State, besides a list of the surveys of United States Land, subject to the homestead and pre-emption laws of Congress; a correct copy of the laws of Congress in regard to locating and holding this land, etc., renders it of inestimable value. Orders sent to Dewey & Co., enclosing fifty cents, will meet with prompt attention, as it will be forwarded immediately post paid.

THOUGHTLESSNESS.—Persons sometimes return their papor, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur *at any time*, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4jl76.

ALL SHOULD HAVE IT.—The last RURAL PRESS is worth the subscription for a year. Every farmer should have it.—*Southern Californian, Mar.* 23.

DESIRABLE RANCH FOR SALE.

Containing 86 acres, every acre of which is the best of soil and in an excellent state of cultivation, and within two miles of Napa City. Twenty acres in bearing vineyard. An orchard of 250 bearing cherry trees, 100 peach, 60 prune and plum, 12 almond, 50 English walnut and Italian chesnut, and one-half acre in currants and blackberries. One pair of excellent farm horses, one three-year-old colt farm wagon, spring wagon with two seats, and about 100 fowls; house of three rooms, hard finished, barn, chicken house, etc.; furniture, crockery and glassware. An excellent sprng near the house. Any person looking for a home and a place that will pay, will find no more desirable place in California. Every implement needed on a ranch will be found on, the place, even to an improved Buckeye reaper and mower with self-raker.

Inquire of D. S. TALLMAN, at the Post-Office, Napa or address H. W. HASKELL, Napa, Cal.

Gloves Made to Order

At prices most economical to customers, at the **SACRAMENTO GLOVE FACTORY** of **I. W. Lusk**, Fourth St., between J and K Sts., Sacramento. None but the best quality of California tanned skins used. Ladies' and Gents' colored, plain and Indian dressed riding and common gloves and mittens on hand, or made to order on short notice. ☞ Send your size or number and you can order by mail. Satisfaction guaranteed. Ladies, farmers, miners, engineers, and all requiring serviceable gloves are invited to call at the factory.

WANTED.

A situation wanted as Engineer in the country, by a person who has had experience in running Portable Engines, Gang Plows, Etc. Reference given.

Address, ALBERT BAILEY,
Oakland, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

OAKLAND, Saturday, May 13th, 1876.

WOODWARD & TAGGART,

Real Estate Auctioneers.

R. A. COBB, AUCTIONEER, WILL SELL AT

PUBLIC AUCTION,

On Saturday, May 13th, 1876, at Salesroom, 460 and 462 Eighth Street, Oakland.

42 Choice Residence Lots,

THE PROPERTY OF CHRISTIAN BAGGE.

This property is situated in a portion of the city that is improving as rapidly as any part of the city: is but a short distance from schools and churches; but four blocks from the Berkeley railroad, which is now being built and will be completed within 30 days. A station is to be built at the foot of Fourteenth street, which will bring this property within 30 minutes of San Francisco. There is not to be found within the city limits more desirable residence sites than this property presents. A horse railroad will soon be built in front of this property, which will bring it within five minutes' ride of Broadway station. Terms, one-fifth cash, one-fifth in one year, one-fifth in two years, one-fifth in three years, one-fifth in four years. Interest on deferred payment at the rate of 10 per cent. per annum. For further particulars, apply to

WOODWARD & TAGGART, 460 and 462 Eighth Street, Oakland.

MAURICE DORE & CO., 326 Pine Street, San Francisco.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures.

Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,
Livermore, Alameda County, Cal.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT..... GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS AND TRUSTEES:

J. D. BLANCHAR, Pres't | I. G. GARDNER, V. Pres't
G. P. KELLOGG, Treasurer | A. W. THOMPSON, Att'y
I. C. STEELE, San Mateo | CHAS. LAIRD, Salinas
A. WOLF, Stockton | A. D. LOGAN, Colusa
W. H. BAXTER, S. F. | G. W. COLBY, Butte Co
J. C. MERRYFIELD, Dixon | C. J. CRESSEY, Oakland
A. B. NALLY, Santa Rosa | E. W. STEELE, S. L. Obispo
FERD. K. RULE, Secretary.

First Annual Statement for Year Ending September 30th, 1875.

TOTAL RISKS WRITTEN	$3,026,378.00
TOTAL PREMIUMS	63,306 49
LOSSES PAID	646.00

No. of Policies Issued During the Year, 1,435.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm. Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campholl, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

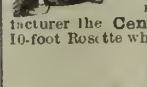
For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 300 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular.

LANDRUM & RODGERS.
Watsonville, Santa Cruz Co., Cal.



Farmers — Don't waste your money on agents and middlemen, but buy direct from the manufacturer the **Centennial Windmill**. A first-class 10-foot Rosette wheel. Price $75. Send for Circular.

E. O. HUNT,
37 Fremont street, San Francisco.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early Marblehead Mammoth Stowell's Evergreen Mexican Sweet, New	Sweet Corn.
Early Canada Early Dutton	Yellow Flint Corn.
Long Red Mangel Wurzel Yellow Globe White Sugar	Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO

RUPTURE.

IF RUPTURED

You should be Cured or Relieved, without Inconvenience or Restriction in Exercise or Diet.

Dr. Rowe, in order to arrive at the absolute certainty of the correctness of the peculiar course of treatment invented and adopted by him, devoted great attention to the mechanism of the structure involved in the course of hernia, so that he is now assured, by a large experience, that it is in accordance with the principles of science, and with the most universally acknowledged practice of artistic surgery, and he asserts with confidence thus inspired that it permanently relieves all cases of reducible hernia, without regard to the age of the patient or the duration of the injury, while it is wholly free from all the cruelty that has characterized the treatment of the malady with torturous trusses from the earliest age to the present day. He therefore invites the earnest attention of the afflicted and closest scrutiny of the profession. Experience shows that all tempered spring trusses necessarily press upon and often *disease* parts of the body that before were in a healthy condition. Lumbago and other equally distressing ailments are not unfrequently the outgrowth of such pressure, and in view of this fact it becomes a matter of decided consequence to avoid like calamities, if possible.

No person suffering with or troubled by hernia, should be without them. 1st—There are no tempered springs to confine the body. 2d—The pressure can be raised from one ounce to forty pounds. 3d—Pressure only where the bowels escape. 4th—Pressure up and back, therefore retaining the hernia at all times. 5th—This instrument is worn with perfect ease while riding horseback. 6th—Rupture retained and the pressure the same while in any position. 7th—Its extreme lightness and facility of adjustment give it preference over any other now known to be in use. The superiority of these instruments over the rigid iron hoops, which in former days were the only recourse of the ruptured, admits of no argument. Consultations and Examinations Free.

These Trusses sent to any part of the country by Express (Terms—C. O. D.) upon receipt of measure around hips, and statement whether single or double rupture.

ROWE ELASTIC TRUSS CO.,
609 Sacramento Street, near Montgomery,
Up Stairs,) SAN FRANCISCO.

CHUFAS AND JAPAN PEAS.

The introduction of these crops throughout the South will enable us to keep our stock and fill our smokehouses as cheaply as it can be done at the West. The Chufa is planted in a ridge like potatoes, yields on common land 200 bushels per acre of the richest feed, unequalled for fattening hogs, poultry—and children. One acre will fatten more hogs than ten acres of the best corn, besides furnishing grazing all summer. For the truth of these claims we refer to U. S. Commissioner of Agriculture, Washington, or to any agricultural paper in the South. Price, by mail, postage paid, 20c a package, 40c a pint, 75c a quart; by express $4 a peck, $15 a bushel.

The Japan Pea fully established its merits several years ago, and is now in universal demand. It grows upright like a cotton stalk, is cultivated like corn, and yields from 150 to 300 bushels per acre on ordinary land. Stock of all kinds relish it and thrive highly on it without other feed. Also excellent for table use (after boiling for about a week). Price, by mail, postage paid, 15c a package, 30c a pint, 50c a quart; by express, $3 per pack, $10 per bushel. These seeds are so scarce and costly that we cannot make any discount to wholesale dealers or Granges.

When Southern planters grow their own stock-feed and fatten their own hogs we shall hear no more of hard times and "middlemen," for this will put an end to both. If you fear to invest largely it will cost but a trifle to try these seeds, and unless your experience differs from all others you will be forever thankful for the trial. Address,

A. F. WHITE & CO.,
Nashville, Tenn.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS.

PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

POND LILIES,

WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,
Pacific Forest Tree Nursery, Petaluma, Cal.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, MAY 6, 1876. [Number 19.

California Harvest Scene—Dr. Glenn's Farm in Colusa County.

We present our readers on this page an engraving, drawn from the oil painting of Andrew P. Hill, painted for G. W. Hoag, which we mentioned a few weeks ago in these columns. It is peculiarly a California scene. The immense separator and the engine to drive its hungry jaws and rattling beaters and shelving screens, the ever widening circle of the headers and header wagons, the mules dragging away the quickly accumulating straw, the owner in his carriage and the overseer on horseback supervising the small army of men required to do the work, the bright sunlight flooding the scene—all these are characteristics of our peerless harvest scenes.

The scene is laid on the magnificent property of

Dr. Hugh J. Glenn,

In Colusa county. As Dr. Glenn is one of our farmer princes, it is interesting to note the steps by which he reached his success and gained his fine estate. Dr. Glenn was born in Augusta county, Virginia, Sept. 18th, 1824. In 1831 his father moved to Paris, Missouri, and Hugh went to school, finishing a good common school education at the age of 17. In 1843 he passed a season behind the counter of a dry goods store and afterwards studied medicine, finishing his medical reading in 1846. At the breaking out of the Mexican war Dr. Glenn served under Sterling Price, returning in 1847 to resume his medical studies under Prof. McDowell, at the State medical university of Missouri. In the spring of 1849 the doctor received his diploma, and returned home, as he says, "to fulfil a contract with a certain young lady, made some seven years prior to that event." He was married on the 13th of March, 1849, to Miss Nancy H. Abernethy.

When Dr. Glenn married he had but $110, with which he purchased a quarter interest in an ox team, consisting of four yoke. On the 3d of May following he left the Missouri river for California, with the ox team. He arrived in Sacramento in the latter part of August, 1849, and camped near or on the site of the Golden Eagle hotel. Dr. Glenn went to the mines, where he was successful. After a few months he sold out his claim, and bought some teams and freight wagons, and followed teaming until he met with an opportunity of selling out with a handsome profit. Then he bought a lot and put up a livery stable in Sacramento, which he sold soon at a good profit. On the 9th of June, 1850, he returned to Missouri. He says, "at that time I had $5,000, and felt richer then than I ever have since, or ever shall, though I may be worth millions." From 1852 until the breaking out of the great rebellion Dr. Glenn was engaged in buying and selling horses and mules, and driving them to California and the Southern States.

Dr. Glenn made his first purchase of the Jacinto grant in December, 1867. He has now 45,000 acres under cultivation. He farms 15,000 acres himself, and rents 10,000 acres to G. W. Hoag, 10,000 acres to Pike Gupton, and 10,000 acres to Isaac Bayless. He has on his property 150 miles of fence. The average yield of wheat on these lands has been 25 bushels per acre in favorable seasons. Of this year's crop Dr. Glenn says although he has on hand 325,000 (140 lb.) sacks, he thinks they will not hold the wheat.

George W. Hoag.

On his 10,000 acre farm, Mr. George W. Hoag has everything arranged for complete independence in farming operations. He has his own machine shops, blacksmith shops, boring, turning and planing machines, buzz saws, etc. He manufactures his own wagons, separators, headers, harrows and nearly all the machinery and implements used. Perhaps we cannot give a better idea of the magnificent breadth of this establishment than by enumerating some of the leading items of men, animals and implements employed. He has employed about 45 men in seeding and 100 in harvest. He has also 200 header horses and mules; 55 grain headers and other wagons; 25 eight-mule gang plows; 21 eight-mule harrows; 100 sets of harness; 10 12-foot headers; three sulky hay rakes; nine eight-mule cultivators; two Gem seed sowers; four Buckeye drills; six mowers; one 48-inch separator, 36 feet long and 13½ feet high, when mounted, capacity 10 bushels per minute; one 40-inch separator, 36 feet long; two 40-foot elevators for self feeder; one steam barley or feed mill; two 18 horse-power engines.

The Monitor Separator.

A prominent feature in Mr. Hill's painting and in our engraving is Mr. Hoag's mammoth separator, the "Monitor." The "Monitor" is a combination of the "Pitts," "Geyser," and "Vibrator" machines, and was built at Mr. Hoag's shops, on the Glenn farm, under his supervision. This separator threshed on the 8th of August, 1874, 5,779 bushels of wheat. The machine is represented in active operation in the picture, and we give for the benefit of many of our readers who are not familiar with such a scene the following brief description of the threshing: First the "circle" is made. It is the starting point in the field where the machinery is placed. The "circle" is made by the headers in advance of the separator and engine. After the grain is cut from the "circle," which usually embraces a space of 100 to 125 acres, the separator and engine are drawn in and the work of threshing commences. The working force to run the machine is 56 men, 7 headers, 21 header wagons, 96 horses or mules. The average run of the machine is 1,700 sacks, containing 2¼ bushels each per day. The utmost capacity of the machine is 3,000 sacks, or 6,750 bushels per day. The harvesting force cut and thresh simultaneously, and in fifteen minutes from the time the header begins in the grain, the wheat is in the sacks.

Such in brief are the facts connected with the scene which we present to our readers. In the breadth and scope of its representation the picture is symbolic of our California agriculture. It is the embodiment of enterprise, of action and of success. It is a stirring scene. It is fitting to awaken among our friends abroad a new appreciation of what may be styled the magnificent in our agriculture.

It is but justice to Mr. Hill to state that in the necessary space of a newspaper illustration his painting is much condensed and the effects of the brush are but feebly reproduced by the graver.

[Copyrighted and published by permission.]

A CALIFORNIA HARVEST SCENE.

Dom Pedro in the "Press" Office.

During the visit of the Emperor of Brazil we received a very courteous letter of thanks from him for books and papers which we sent him, containing notes of the grand agricultural and mineral resources of our State. The Emperor honored the PRESS further by a visit to our office, on Thursday evening, April 27th, to examine the model of Hunt's new and important improvement in a loom for weaving figured and colored fabrics, with which he was much pleased. We consulted the distinguished visitor with reference to the protection of American inventors in Brazil, and he assured us that our inventors will be able to secure the most ample protection with promptness. The Emperor is evidently a most sensible and practical man. He made most excellent use of his time in this city, and saw more in a few days than dawdling and honor-seeking tourists could see in a month. We wish him all success in his tour, and have no doubt that he will return to his native land laden with valuable suggestions for the advancement of his people, gained from the acute observation of the world's progress which he is so diligently prosecuting.

OAKLAND HOMESTEADS.—Christian Bagge's auction sale of Oakland city real estate (on exceedingly easy terms) occurs on Saturday, May 13th.

THE road to Yosemite *via* Mariposa is now open.

CORRESPONDENCE.

Agriculture about Reno.

EDITORS PRESS:—The growing town of Reno is the center of one of the most interesting and important portions of the State. The Truckee valley, in which it is situated, is at this point a wide plain, and the old, well known Truckee meadows are just across the river, where, in ante-railroad times, the overland emigrant stopped to recruit his cattle for the weary ascent of the mountains. The old pioneer who passes along this summer, on his way to the Centennial, will hardly recognize the spot which furnished him such refreshing rest in years past. A flourishing town, not dreamed of then, will appear, laid out evenly with wide, rectangular streets, having substantial stores and public buildings, and handsome residences; and showing a decided tendency to ambition in the various projected improvements. Being the county seat, the court house is here, and is a large, well arranged brick structure, in that portion of the town built on the south side of the Truckee river, and which is reached by a substantial bridge. A little northeast, and in full view of the town, is the site of the State prison, now being built. Here also will be located the female seminary, which is under the control of Bishop Whittaker, of this diocese. The site for this building has been donated by the R. R. Co.

Being the outlet for a large northern and northwestern territory, Reno has some importance as a shipping point and depot of supplies for many large cattle ranches, some of which are 200 miles distant. About 2,000 men are employed in the hills, from seven to 15 miles off, in getting wood and timber for the mines at Virginia and vicinity, and in attending to the flumes in which it is conveyed. The immense water power furnished by the Truckee river here provides facilities for manufacturing which are sure to be availed of as the need for such enterprises is developed. But that which assures the permanent prosperity of the town is the

Agriculturat Value

Of the surrounding country. This was not appreciated by the first settlers, who passed by with contempt the sage brush plain, which presented only the idea of continued sterility, and sought the meadow land which produced the native grasses. This being all settled, the next to arrive were compelled to go out on the plain, and it was soon ascertained that with irrigation these lands yielded most liberal crops, and were in every way superior to the meadows.

In the whole basin there are from 80,000 to 100,000 acres which can and will be irrigated, a large portion of which is within reach of the ditches already in operation, and from 15,000 to 20,000 acres are now in cultivation, and the cultivated acreage is being largely added to each year.

The singular spectacle is everywhere seen of an unreclaimed sage brush waste divided only by a fence from a flourishing field of alfalfa, which seems to be almost as much at home as in the rich valleys of California. Water alone was needed to make this apparent desert a fertile plain, rivaling in richness the silver bearing rocks by which it is surmounted.

Ditches are already in position to supply large portions of the valley, and new ones are being constructed and projected to provide irrigation for the whole tract. Of course, under these developments, land near town has rapidly advanced in price, and changes hands at from $50 to $100 per acre, and at these prices is considered a profitable investment, when the first season's cropping will sometimes pay for the land and all the cost of preparing it.

A few miles away there is yet much which can be bought for from $5 to $15 per acre, which will be, when cleared, of equal value to that now under cultivation.

The grains, alfalfa, potatoes, all kinds of vegetables, and both large and small fruits are profitably grown. The propinquity of the mining towns and camps affords an excellent market, and two railroads and numerous good country roads give unusual facilities for reaching it.

Tree Growing.

Both fruit and forest trees grow rapidly, and it will be but a few years before the bare look which their absence gives the landscape will be removed by the growth of the orchards and ornamental trees which have been planted. But much more remains to be done in this line, and the writer suggests to your numerous readers in this valley, that they should plant a greater variety of shade and ornamental trees. Hitherto, so many of one kind have been planted that the general effect must be monotonous. The presence of another nursery will give increased opportunities of selecting what suits the taste or need of each. This is about to be afforded by the enterprise of Mr. Chapin, who is now planting a nursery on the Steamboat springs road, just out of town. On the opposite side of the town, Mr. Stephen Connor has had a small nursery for some years past.

A Nevada Crop.

Having said above that the first crop will sometimes pay for the land, and all the cost of preparing it for cultivation, maybe it will be better to give actual results in figures, as obtained from a practical and successful man, Mr. A. J. Hatch. Mr. H. has one field in alfalfa, of which he gives the following data:

12 acres, $25 per acre	$300	
Cleaning, $25 "	300	
Harrowing and Seeding, $15 per acre	180	
Irrigating 12 acres, harvesting and baling 56 tons alfalfa, $7 per ton	392	$1,172
56 tons alfalfa, $20 per ton		1,120
		$ 52

On this piece of land the cost of clearing off the stone was equal to first cost of land, and yet the first season's crop came within $52 of making the whole transaction clear profit. On much of the land the cost of clearing will not exceed $5 per acre, while on some it would be greater than the estimate above given.

Stock Raising.

The grass on the mountain sides, at some seasons, and in the deep canons all the year, affords pasturage and shelter for thousands of sheep, which is one of the most profitable stock interests of the country. Large flocks are owned and pastured on the adjacent public lands. At this date shearing is going on, (which is done here but once a year,) and the depot platforms are filled with bags of wool, waiting for shipment. About 100,000 pounds will be shipped from here this year. The cattle ranches are, for the most part, farther off, but large herds are owned by the settlers in this valley, and the interest is constantly increasing. Since it is ascertained that alfalfa is so well adapted to this soil, that cattle fatten on it so rapidly, and that so fine a quality of beef is produced, a large business will soon spring up in winter feeding, and thus much facilitate the wintering of stock. When a large portion of this productive valley is yielding its liberal crops of alfalfa, many more cattle may be kept in the hills during the summer, having the certainty of a bountiful winter provision here. J.

Reno, Nevada, April 29th.

Notes on Rocklin and Antelope.

EDITORS PRESS:—Rocklin, on the Central Pacific railroad, about five miles above the Roseville junction, or 23 miles from Sacramento city, is a very prosperous village of about 300 population. The railroad has here an extensive round house and repairing shops, with abundance of side switches. The principal producing business of the place is their quarries of elegant building granite—quarries from which blocks and slabs of any movable dimensions can be obtained. The State capitol was built from rock quarried here; the appraiser's store, next the San Francisco post-office, is using rock cut from this quarry; but the principal work now being done is on the contract for the new brokers' hall in San Francisco, which must be on a magnificent scale, judging from the blocks being dressed. Two steam derricks of immense strength are employed to lift the blocks from the quarries. The supply of granite seems almost unlimited in the immediate vicinity, and crops out in the shape of huge boulders of thousands of tons. After getting a face in the line of the cleavage and a clearance sufficient, the skillful workman will by the aid of powder and wedges slice off and turn down a slab of immense proportions. This will then be covered with men drilling lines of small holes for the dividing wedges, to make it fill the dimensions ordered, from the largest blocks and pillars down to curbing and paving cubes.

Rocklin has a public school with two teachers, church edifice, organization of Good Templars and Sunday school, two hotels, with stores, saloons, etc., sufficient for all the real or supposed wants of the place. Dana Perkins, at the railroad depot, attends to the wants of the railroad passengers in his line, is well known and popular.

Farming.

Rocklin, nestled in the low foothills, midst shade and flowers, is surrounded with some excellent farming, pasture and fruit ranches. R. M. Nixon in the edge of town, J. P. Whitney about a mile west, and D. C. Allen about five miles east of town, are carrying on varied stock, farming, fruit and grain business, evidently fully persuaded theirs is a calling worthy of labor and intelligence. I mention these only as representatives of scores of others that are settled all over these Placer hills, tilling the soil and cutting and hauling wood to the railroad, thus always giving work and gaining cash on sale. Not far from town may be seen the old piles of sluice tailings that washed off the surface gravel. Gold yet is hid hereabouts and will be coined some day; perhaps lack of water is all that hinders. All now is pronounced agricultural land.

Antelope Station

On the Central Pacific railroad, 14 miles from Sacramento city, is about to claim a position as a business place. A convenient center in the midst of very excellent, rich grain and stock ranches. Many are now doing their trading and postoffice business all at Sacramento city, and have been heretofore hauling wheat there for storage. The enterprising spirit of J. F. Cross is erecting a very substantial fireproof brick storehouse 40x90 feet, 16 feet in the clear, which will be a great convenience to the farmers with their immense crops. This point now offers rare advantages for any one wishing to start in an entirely new field for merchandising and grain and farmers' produce purchasing. A postoffice will be established very soon. The place and its surroundings seem very healthy, having an elevation of 154 feet, as reported by railroad survey. Some of the finest farm and dairy lands of Sacramento county are on Dry creek, in this vicinity. I walked through a field of volunteer on the ranch of Philip Forsyth that had not been even harrowed or touched since last harvest and he counts on a yield of not less than 25 bushels to the acre. The adjoining lands are fully equal to his in productive qualities. Some are taking quite a pride in making a choice, first-class butter, such as some think can only be made in Marin county.

I found one lady giving a slight attention to turkeys, having already 1,000 hatched and counted, with many more she expects to count soon. The presumption is she takes this method of getting even on the grasshoppers of Kansas if they should undertake to follow her here for a second raid. I say she is sensible in arming herself with this natural enemy of the grasshopper. Speaking of poultry reminds me that I hear some excellent things said of Col. Eyre's valuable hints and instructions in that department of the RURAL PRESS. He has given within the past two years the most essential elements of information for success in that line of business. "He is not a theory man, but most thoroughly practical," they say. He has the faculty of saying much in little space.

Antelope, April 21st. C.

Farmers, Write for Your Paper!

[Written for the PRESS.]

"Turnips should never be pulled. It injures them. It is much better to send a boy up and let him shake the tree."

"It is evident that we are to have a backward season for grain. Therefore it will be well for the farmer to begin setting out his cornstalks and planting out his buckwheat cakes in July instead of August."

"The custom of planting the pumpkin in the front yard with the shrubbery is fast going out of vogue, for it is now generally conceded that the pumpkin as a shade tree is a failure."

"Now, as the warm weather approaches and the ganders begin to spawn——"

Thus wrote Mark Twain when he assumed the management of an agricultural paper during the editor's absence.

When that editor returned and told Mark that he wanted him to throw up his situation and go, merely because the latter had discussed oyster beds under the head of "Landscape Gardening," had told the farmers that clams will be quiet if music be played to them, and had spoken of the moulting season for cows, I assert and maintain that the editor made a sad mistake. The purpose of an agricultural paper is to "draw the farmers out" and get them to state what they know. Mark Twain during his brief management had not, it is true, quite attained that objective point; but he had at least made one step in the right direction; he had succeeded in getting two or three farmers to come down to investigate matters and *make enquiries*. Had his lease of editorial life been less brief, I doubt not he would have got a good many farmers to *write their* opinions on the subjects he had broached; to *write*, Messrs. Farmers; do you mark the word? In other words, to *correspond*. It is the "correspondence" that ensures the success of an agricultural paper, and it is only because so small a proportion of the farming community appreciate the fact, that so few publications of this character are worth the paper they are printed on.

If you want a good paper, Messrs. Farmers, do your share of the work of *writing* for it; if you desire information, *write* for it; if a fellow farmer desires information and you can give it, *write* it. *Write* to your paper what you know, what you see, what you infer, with all the whys and wherefores; and let the editor be the judge whether your information be useful, and coincides or differs with that of others. Don't be afraid of being long winded, or making mistakes in spelling or in grammatical construction. The editor will fix all that (if be necessary), and your letter will look as neat and read as smoothly as do his editorial comments. I have not the slightest doubt he will take this communication of mine, correct it here, curtail it there, and insert a phrase or two elsewhere. But what of that? I don't keep a copy of the original; my memory is conveniently short and bad in such matters; my pride and feelings are not hurt, and it's *my* letter, anyhow!

Come, good farmers! favor me with a few more letters, and the RURAL will give you even a better paper than it does now; state your experience and give us your theories. The editor may have the latter, but he cannot run a ranch in his office and put them in practice. He must trust to you to accept or reject his and his correspondents' views; all he asks in return is that you should *write* him whether they are correct, or wherein he has erred. Without your correspondence he must admit his inability to conduct a successful or even a creditable agricultural paper.

Write us all about your horses, cattle, dairy, sheep, wool, swine, bees, poultry, trees, grain, plants, etc.; how you raise, cure, cultivate or improve them; what the cost; what and wherein the profit or the loss. * * * *

Analysis of an Alkali Soil.

EDITORS PRESS:—The following report of an examination of an "alkali soil" from Los Angeles county will be of interest to your readers. It will be seen that the analysis indicates an entirely different antidote from that required for the salty soil of Sherman island, on which I reported not long ago.

The sample of soil analyzed was collected and transmitted by Mr. S. G. Baker, secretary of the Grange at Los Nietos.

Analysis of an "Alkali Soil" from Near Corvallis, Los Angeles County, Cal.

Soil gray, rather light and sandy, glistening with scales of mica. Tastes faintly salty and alkaline. On extraction with water it yields a brownish solution, which on boiling smells like lye, and on full exhaustion of the soil contains 1.68 per cent. of the weight of the soil of soluble salts; these salts contain in 100 parts by weight:

Chloride of sodium, (common salt)	22.35
Carbonate of sodium, (common soda)	17.47
Sulphate of sodium, (glauber salt)	51 16
Sulphate of potassium	8.73
Phosphate of calcium, (bone phosphate)	0.63
	100.34

The most obviously injurious ingredient in this soil, so far as vegetation is concerned, is the carbonate of sodium, which is present in sufficient quantity to dissolve, not only the vegetable mold or humus, but also the living tissues of the rootlets of most plants. This, however, can be transformed into comparatively inert substances, viz: glauber salt and carbonate of calcium or "chalk," by the application of a corresponding quantity of gypsum or "land plaster."

It is questionable whether on land containing throughout as much of soluble salts as the sample analyzed, the application of plaster would enable it to bear a useful crop. The greater part of the salts would first have to be removed by flooding with fresh water, best combined with underdrainage, but not necessarily so. After that, cropping and the application of plaster would probably, in most cases, keep the salt in check for a number of years.

It must be borne in mind that in all salty or "alkali" soils, the surface layer is, in dry weather at least, always the most heavily charged with salts. The reason is that as the water drawn up from the subsoil evaporates, the salt it contained is left at or near the surface; hence the subsoil may sometimes contain but a trace of salt, while the surface is white with it. And hence, again, it often happens that when the salt which may thus have accumulated for many years is once removed, the ordinary processes of culture prevent its accumulation to an injurious extent for many years to come.

Whether such would be likely to be the case with the soil examined, it is impossible to say without local examination. If the specimen sent represented a surface layer only two or three inches in depth, a light application of plaster and deep tillage would perhaps do all that is necessary to render the soil productive. If it fairly represents the condition of things to the depth of say six inches, there are about 500 pounds of soda per acre, to neutralize which about 900 pounds of plaster would be required.

Doubtless the amount of salts in the soil varies a good deal from place to place; and while some localities may be as badly off as in the case supposed above, very many tracts whose soil is not so highly charged, but still sufficiently so to injure crops materially, will be at once relieved by a much smaller dose of plaster.

A few systematic experiments carried out by the Grangee interested, or by intelligent individuals, would soon decide these questions for the general benefit.

Of course the chemical nature of the "alkali" may also vary considerably within limited areas, so as to require the application of a different antidote. Such variations may, in general, be most readily observed by paying attention to the natural vegetation of the land, which will indicate sensible differences very plainly. The presence of soda, which requires gypsum as its antidote, may ordinarily be recognized by leaching the soil with water. If the drippings are of a brownish tint, the presence of soda is probable, and may be verified by boiling down the lye, when it will show plainly the well known "lye smell." EUG. W. HILGARD.

University of Cal., April 24th, 1876.

THE DAIRY.

Dairying in England.

EDITORS PRESS:—Our winter just passed has been characterized by its mildness. A wet spring is upon us, with all the luxuriance of early vegetation. Several writers here are urging upon the dairymen the necessity of organization if they would improve the dairy products of the country. In the majority of the dairy farms of this country the process of cheese manufacture may be simply described as "good milk spoilt." Our markets are always overstocked with inferior cheese, which makes about 40s or 45s per cwt.; while good cheese is always in good demand with a short supply. The latter will make from 80s to 90s per cwt. The other day I had a talk with one of the lar-

gest land owners in Cheshire, and he related to me a fact concerning one of his tenants. This man discovered that by tho Cheshire system of cheese making he could only obtain 50s per cwt. for his cheese, and he therefore gave up that mode and adopted the Cheddar system. His landlord had just seen the factor who sold the cheese for this man, as well as that made by his other tenants, and while these latter only received 52s per cwt. for their cheese, the former received 85s. I have no doubt but that the others will adopt the Cheddar system, now that their enterprising neighbor has proved to them that it pays.

But it also pays to make good cheese instead of inferior. A factor told me the other day that he had bought cheese from two men, neighbors. One, an enterprising young fellow, had been determined to make his cheese as good as possible; he had been paid 84s per cwt. for his cheese. The other was an "average man," who made his cheese in a careless manner, just as his grandmother had taught him years ago. Perhaps he received 48s per cwt. This would be equal to a difference on the rent of about 35s an acre—and yet this man would go mad if his landlord proposed to charge him a shilling an acre extra rent. We want a dairymen's society to teach these men better, but many of them would, I am afraid, never attend its conventions. However, I hope we shall teach them some how or other.

If we could only get the landlords to put abont a dollar an acre on the rent of all dairy farms, and at the same time tell them to join the British dairymen's association and learn how to save eight or ten dollars an acre by making good cheese, we might then have a good number of members for the proposed society. Some of these hints may also be useful to American dairymen. H. F. M.

London, England, April 6th.

Our correspondent is one of the ablest agricultural writers of his country, and sees clearly the advantage of producing the finest farm products. We are advocating a dairy association in this State, both for the improvement of dairy products generally and to secure the trade and transportation advantages which our dairymen can obtain by organized effort. We have every prospect now of gaining a wide-awake and earnest dairymen's society, and we trust our English friends may do likewise. As both societies, British and Californian, will probably date their birth from the present year, we challenge our English contemporaries to the honorable contest of doing most good in the promotion of the specialty of dairy husbandry.—Eds. Press.

Setting Milk in Large Pans.

The experience of the Eastern dairymen has been uniformly in favor of setting milk in large pans or vats. This fact has led to many contrivances, several of which have been proved worthy by trial. We are not aware that this system of setting milk is used to any extent in this State, and we give below a statement showing what is claimed for the contrivance known as the

Champion Milk Pans and Coolers.

These pans are now being introduced to our dairymen. In our advertising columns may be seen a cut showing the apparatus, and we print below the points of excellence which the manufacturers claim for it.

The advantages obtained by their use are, first, saving of labor; not more than one-fourth of the labor of handling the milk by the old method being required with these pans. Lifting the old fashioned pans to and from the shelves, skimming, then lifting them again to empty and then the growing pile to be washed, scaided and put ont to dry—by the use of these pans this tedious process is reduced to a few minutes' work. Second, more butter is produced from the milk by the use of these pans than by any other method, and third, the butter made is of a better quality. They are arranged in sets of four single pans within one large water pan, divided by partitions into four distinct and separate compartments, so that the water may circulate around one single pan or around all as may be desired. The entire set of pans are arranged in a wood frame supporting them, and of convenient hight to strain milk into and to skim. The partitions of the water pan are let through the bottom of the pan and firmly clinched and soldered, so that it is firmly braced and cannot sag or yield a particle. The pans are all made of heavy tin and of the largest sized sheets, being 30x72 inches. The water pan is painted inside and out, and the milk pans are painted on the outside where they come in contact with the water, thus avoiding all danger of rust.

The frames are made of ash, substantially built and painted. The water pan is made one inch deepest in the center, thus making the inside corner of each compartment lowest. Here is placed a valve opened by a wire handle from the top so that all the water may be drawn off from any or from all the pans without disturbing the milk. There are rests along the center beneath each milk pan so that it cannot sag to the water pan when the water is drawn off. At the center is a funnel with four outlets, one into each compartment, through which the water runs into a pipe discharging at the bottom of the water pan, and underneath the milk pan. The space between the milk and water pan is one-half inch at the bottom and a little more at the sides and ends. The water escapes at the corner of the pan opposite to where it enters, thus keeping the circulation complete by two outlets, one-half inch from the top, the other three inches. Either of these may be used as the milk is deep or shallow in the pans. The water from all of the outlets escapes into the water trough which hangs in wire bales beneath the pan and is conveyed away or may be emptied back into the reservoir, cooled with ice and used again, where the water supply is scarce. The milk pans are keyed down so as not to float when empty, and need be removed only when it becomes necessary to clean the sediment from the water pan, which otherwise would, after an interval, cause an odor injurious to the butter. By this process of using water around each or all of the pans, the milk is very quickly deprived of its animal heat in the hottest of weather and is kept at an even temperature while the cream is rising, thus materially improving the quality and quantity of butter. In cool weather, as the old pans are arranged on shelves, to secure sufficient warmth for the lower pans the milk in the upper pans must be overheated, and as tho cream forms it excludes heat from the milk, while in these pans the milk is warmed instead of the cream. The milk outlet is near the inside corner of each pan, which is also one inch deeper in the outlet corner, and passes through the water pan. A rubber ring is placed around this outlet between the pans, and a nut is screwed on from below, making the whole perfectly tight. The outlet, milk stopper and nut are all made of cast brass, thereby preventing any rust. This nut is removed in an instant and the milk pan can then be easily lifted out. This milk outlet is closed by a stopper packed with a rubber ring, which screws into it from the inside of the pan. When the milk is skimmed the elbow of the sour milk trough is placed beneath the pan covering the outlet the milk stopper unscrewed and the milk flows away to the swill vat, when the pan can be washed and scalded in five minutes without being removed and is ready for straining into again.

The manufacturers claim that the Champion pan excels all others in durability, simplicity of construction, the ease with which any portion of it can be cleaned and cared for, and the facility with which, by its use, the milk can be deprived of its animal heat and kept at an even temperature. If the water supply is properly attended to the cream comes off thick and moist in the warmest of weather, and white caps do not appear, neither will there be any cream dried on the pans (as will be found in pans by the old way of setting milk). It will be seen that any of the inner or milk pans may be removed at pleasure for the purpose of cleansing, without disturbing the others. These pans may be used for deep or shallow setting as may be desired. Each pan is allowed to remain 48 hours without being disturbed if desired, thereby giving ample time for the cream to rise on the milk.

HORTICULTURE.

Leaf Curl on Peach Trees.

Editors Press:—In the last number of the Rural Press are some queries respecting leaf curl on peach trees, with an invitation to orchardists to communicate the results of their observation and experience on the subject. Your San Bernardino correspondent seems to suppose that only "seedling peach trees" are affected, while budded trees escape this disease, and asks, "Why is it?" I reply that your correspondent is mistaken in his premises. So far as my observation has extended, I am prepared to say that seedling trees are not more subject to this disease than those that have been budded. In your remarks upon this subject you say, "Some varieties will curl badly, and some will be unaffected." This is exactly the truth of the matter. Some *varieties* curl, and some do not, and this without regard to the question whether they are budded or not. I could name several very valuable seedling peaches which are free or nearly free from the curl, whilst some of the seedlings recently introduced curl so badly as to be nearly worthless. So, on the other hand, some of the most valuable of the old standard sorts curl badly, and some not at all. As examples, I will only mention those two old and valuable New Jersey varieties, the "Crawford's Early" and the "Crawford's Late." The former of these is everywhere free from curl, while the latter is sure to curl badly wherever this disease is at all prevalent. It is asked, "What is the cause and what the remedy?" for this very singular disease. You rightly say that the cause is conjectural. Some observers have attributed it to the action of insects; but this is highly improbable. The best opinion seems to be, as Barry says, that it is "caused by sudden changes of the weather." This opinion is strengthened by the well known fact that in many of the sheltered valleys of California this disease is nearly unknown.

It is evident from the nature of the case that there can be no "remedy" or cure for the leaf curl. I will not trespass upon your space with an elaborate description of this disease, but will remark that in districts where it prevails it is often the cause of a completo loss of the crop on those trees affected by it. Tho disease is always at its hight about when the young fruit is about the size of small peas. Now, if the curl is "bad" the fruit will fall to the ground, there not being healthy leaves enough to afford the required support. If, however, the curl is moderate and partial, only a part and sometimes none of the fruit will be lost. The disease, as is well known, is of brief duration, say 12 to 20 days, after which the trees resume a healthy appearance in every respect, and if the fruit has been able to survive the ordeal, it also appears to grow and become as perfect as if no check had been given to its growth.

I will only add what, however, must have occurred to every thoughtful person, that it is advisable, in planting peach orchards in situations liable to leaf curl, to select varieties that are known to be free from this disease. A full line of varieties ripening in succession from the earliest to the latest can be procured, and any of our leading nurserymen will be able and willing to point these out to purchasers.

James Shinn.

Shinn's Nurseries, Niles, Cal., April 17th.

Another View of Curl Leaf.

Editors Press:—What remedy for curl leaf? ask some of your readers. Peach trees are subject to various affections, the two worst ones being the *Oidium Persicæ* and *Grise*. The former is similar to the *Oidium* of grapevines or mildew, the other is caused by very minute insects of the genus *Acarus*, who settle in immense numbers on the outside of the leaves, of which they suck the parenchyma, making them curl and turn of a grayish color. For both, and in fact all "curl leaf" affections, the best remedy known is flowers of sulphur, which is applied through a bellows like those used for mildew on grapevines. However, no sulphur must be blown, if possible, on the fruit, for fear of generating sulphurous acid. Then the sulphur sticks too well to the hairy surface of the peach. If any of your readers would desire it, I can give them in the Rural a description of a sulphur bellows and how to fix up one themselves. In Europe peach trees are budded on hard-shell almond stocks, which are less liable to all these complaints peculiar to peach trees.

Felix Gillet.

Nevada City, Cal.

We shall be pleased to have a description of Mr. Gillet's home-made sulphur bellows—Eds. Press.

Medlar and Loquat.

Editors Press:—Your correspondent, "W. C.," writes for information concerning these fruits. In the last edition of "Chambers' Encyclopœdia" I find the following: "The common medlar (*Mespilus Germanica*), a large shrub or small tree, spiny in the wild state but destitute of spines in cultivation, is a native of the south of Europe and of the temperate parts of Asia, but it is a doubtful native of Great Britain, although it is to be seen in hedges and thickets in some parts of England. It has lanceolated leaves, not divided nor serrated, solitary, large white flowers at the end of small spurs, and somewhat top-shaped fruit of the size of a small pear or larger, according to the variety. It is much cultivated in some parts of Europe and is common in gardens in England, but it does not generally ripen well in Scotland without a wall. Its taste is very austere, even when ripe, and it is not eaten until bletted, viz., when its tough pulp has become soft and vinous by incipient decay."

I have seen the trees growing in England and have eaten the fruit often, but so long since that I have only an indistinct remembrance of its taste, beyond that it is very peculiar and indescribable. When perfectly ripe the top of the fruit falls in from the internal decay.

On consulting the same valuable authority I find the following concerning the loquat: "The loquat (*Eriobotrya Japonica*), an esteemed Chinese and Japanese fruit, has been introduced into Australia and is now abundant there, and is sold in large quantities and at a cheap rate in the markets of Sydney and other towns. The tree or shrub which produces it attains a hight of 20 or 30 feet, but in cultivation is seldom allowed to exceed 12 feet. It is a beautiful evergreen, with large, oblong wrinkled leaves and white flowers in terminal wooly panicles, having a fragrance like that of hawthorn blossoms; the fruit is downy, oval or pear-shaped, yellow and about the size of a large gooseberry. The seeds have an agreeable flavor which they impart to tarts. The loquat lives in the open air in the south of England and produces fruit, but a warmer climate is required for fruit of fine quality. It is not unfrequent in hothouses and may be grafted on any species of medlar. The species of loquat are all evergreen."

James J. Hyde.

Santa Clara, Cal.

The Medlar.

Editors Press:—What kind of fruit is the Medlar? inquires another friend subscriber. medlars are the fruit of *Mespilus Germanica*, very astringent and unpalatable when picked from the tree; it has to be put in straw or hay to get sweet and mellow. The fruit is round on one side, flat on the other, with five small horns, which are taken off when eating the fruit. Some swallow skin, stones and all; others throw them ont. Medlars are of the size of a lady apple or large walnut. They are picked in the fall and set in straw, where they will get mellow in the course of a month or two. Mine up here were good to eat in January, and indeed they were welcomed. Some people are very fond of medlars; so am I.

Felix Gillet.

Nevada City, Cal., April 22d.

THE VINEYARD.

Raisin Drying Floors.

Editors Press:—I see the question is asked, "What does Mr. Sanders think of this?" in regard to the estimates made on the cost of a drying floor for raisins as described in my published letter of April 1st. I answer, I do not think anything of it. There are places where such drying floors (see my letter, Rural Press April 1st) would be impracticable; there are other localities where, from insufficient sun heat, or early and continued fall rains or dews, that such floors would not pay for making. But, from possibly as extensive acquaintance among the vineyards of our State as any other man has, I know that there are other places where they can be constructed from rock that is really in the way, has to be moved anyway, and might as well be utilized in the construction of drying floors as handled with nearly equal expense for nothing but to get it out of the way.

Substitutes for Drying Floors.

Some time ago, while at Martinez, Mr. Sturgis, of the Alhambra hotel, told me about the excellent raisins manufactured by the Fish Brothers, just out on the north side of town; that they had a glass house in which to dry their raisins; that they made the very best that he had ever seen. Of course, I lost no time in going out to see this novel arrangement. On arriving at the place and making known the object of my visit, I was assured by Dr. Fish that the raisins that I had heard praised so highly were not dried in the glass house at all, but that they were cured on an adobe or mud floor, that he had made as "an imperfect imitation of the drying floors for raisins used in Southern Europe, described by a fellow in the Rural Press as he had seen them in the raisin district of Spain." He invited me to see the floor, and told me how he had constructed it. How he turned the water on till the ground was a mass of mud, then how he packed the mud down solid, and pounded it down smooth on the surface, then let it dry and heat by the sun, and on it had cured his crop of raisins. Perhaps 'tis needless to add that he soon recognized me as the "fellow in the Rural Press."

Once, while visiting the celebrated fruit farm and vineyard of the Pentlandt Brothers, of Knight's Ferry, after talking on the subject of raisins, my hobby, and describing the process of curing them, and the drying floors, one of them asked, "Wouldn't a good solid adobe floor, with a smooth black cement surface, fill the bill." I told him that I thought it would, only, with material handy, they might construct something more durable. "Come here," said he, "let me show you what I have done." He took me into a building and showed me the plastering on an old adobe wall, as solid and compact as limestone. He assured me that it was composed of nothing but ashes and mud. From its appearance I knew it would be an excellent surface for a drying floor.

Alden and Other Dryers.

I have always believed in the superiority of the American mind in all matters in which knowledge and skill could be brought in competition with slow hand labor and time. And since seeing some of the Alden raisins over a year old perfect pellets of sugar, I have been almost converted to a belief in that which I once thought a most arrant humbug. For some localities, undoubtedly, these dryers are the best things that can be used. And it is possible that they are the improved method, by which we are to show our superior way of making raisins, as we have of doing most other kinds of work. But, for myself, if I can make a nice, choice article of "layer raisins" in the way practiced in raisin countries, I shall be content, for some time at least.

W. A. Sanders.

Big Dry Creek, Fresno county, April 24th.

We have seen some of the year old Alden raisins to which Mr. Sanders alludes. They were kept a year by Dr. Strentzel, from samples submitted to him to observe the effect of the time upon them. They were indeed "pellets of sugar." The sugar was crystallized wholly within the skin, and there was no exudation or incrustation whatever. Dr. Strentzel says he thinks they will keep another year or two in perfect order.—Eds. Press.

New Acid.—M. J. Duval has discovered in mare's milk a proximate principle not found in the milk of ruminants. Equinic acid crystallizes in groups of small needles, not volatile without decomposition, of a fragrant odor and peculiar taste. Its reactions with nitrate of silver, perchloride of iron, chloride of gold, etc., distinguish it from hippuric acid.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

The Worthy Master at Santa Clara Grange.

Editors Press:--I was anxious to get a few lines in last week's Rural, relative to our visit to Santa Clara Grange on the 22d of last month, but our correspondence had accumulated to such an extent in our absence that it has consumed the greater portion of my time since my return to get it cleared up. I am afraid that some of my correspondents will complain on account of not receiving prompt answers to all their communications. If such is the case, however, I will stay at home in the future and let some one else visit the Grangee.

No doubt the editor of the Rural knows something about answering questions, and from long experience has became proficient in that department of his profession. But to take a green farmer from his plow, and set him up as a figure head at which to throw conundrums on any conceivable subject and expect that he should satisfactorily answer them all is—well, to say the least, embarrassing—and I would advise my friends who are anxious to hold office to cool their ambition by joining the army as high private, or take a trip to the North pole in search of moonshine.

[After a pleasant ride from Brooklyn to Santa Clara, which Mr. Webster describes most interestingly in a letter printed on another page, the Worthy Master reached Brother I. A. Wilcox's, and the following day attended the meeting described below.—Editors Press.]

At eleven o'clock the Santa Clara Grange assembled in their large and commodious hall, situated on the main street of the town. The hall was filled to overflowing with intelligent, happy looking brothers and sisters, including representatives from all the Grangee in the county. There were also present some from Alameda county, including Brother Horner, M. of Centerville Grange. The Grange was called to order and opened in due form by Worthy Master Wilcox. After preliminary business your humble servant was called out for a talk, and to answer questions. He gave a synopsis of the work done at headquarters for the last six months, and noted the revival of the Order throughout the State, the evident disposition to mingle more business with the pleasuree of the Grange, the necessity for the concentration of our forces, and the consolidation of our orders.

Dinner being announced a recess was taken for one hour. The tables being prepared across the street, and one block from the Grange hall, it was ordered that we should file out "two and two." Brother Blanchar suggested that I should file out with his good wife, which I did with many thanks, not dreaming of his design until I saw him arm in arm with the best looking sister in the hall. Two and two we left the hall, two and two we crossed the street, and two and two we marched up on the other side. When a block and a half distant, Sister B. exclaimed "Still they come!" Looking back and across the street, there they were still coming out of the hall and across the street, forming two sides of a parallelogram. The town was out to see the show.

One fellow on the curb remarked "I thought this Granger business was about dead, but this is the liveliest corpse I ever saw."

Two long tables were richly spread with the "good things of this life," and tastefully decorated with fruits and flowers.

The halls about Santa Clara appear to have been built before the Patrons' advent, consequently are too small, but we managed to all get inside, and since it is customary for every good Granger to carry two bears with him everywhere he goes, the best of order prevailed, and the turkeys, chickens, cakes and strawberries suffered severely.

On our return to the Grange hall, the orator of the day, Brother Blanchar, was called out. He led off in fine style on the subject of political economy, and wound up by getting down to business in the Farmers' Mutual Fire Insurance Company. He stated that there had been some objection on the part of farmers, on account of taking the money paid for premiums to San Francisco instead of leaving it in the counties where the risks were taken. Brother B. stated that he had or was about making arrangements by which the money received for premiums should be deposited in the local banks of the counties where the risks were taken.

After a general interchange of opinions and expressions of hope for the future we separated, all apparently well pleased with the results of the meeting. J. V. Webster.

Fruit Vale, Cal., May 1st.

Another Account.

From another account of the Santa Clara meeting, written by our local correspondent, G. W. M., we take two paragraphs to show how the visit of the Worthy Master and his accomplished wife and Bro. Blanchar impressed the Santa Clara Patrons. G. W. M. writes:

On entering the ball at 11 o'clock, we found a large and appreciative audience of ladies and gentlemen attentively listening to an able and interesting address by Bro. J. V. Webster, Worthy Master of the State Grange. I had not the pleasure of hearing the whole of the address, but was thoroughly impressed by what I did hear of it as eminently practical and business-like. He dwelt at some length on the many difficulties the Order had met with in this State, and spoke cheeringly of its present hopeful position and future prospects. Every bearer must have been impressed with Bro. Webster's thorough knowledge of the whole subject of the history and working of the Order, but also of his unbounded faith in its success as a permanent organization for the benefit of farmers. After Bro. Webster had concluded his address, Bro. J. D. Blanchar was called for and took the floor, and for some time interested the audience with a lively speech in the interest of the Farmers' Mutual Insurance Association, of which he is President. After dinner the meeting was again called to order in the hall, when a general free and easy discussion was had on many subjects, in which visiting brethren, as well as those who felt that they were at home, participated.

At the request of Worthy Master Wilcox. Sister Webster favored the meeting with a most beautiful song, with the melodeon accompaniment—one that elicited much applause at the late State Grange meeting.

Altogether the meeting was a very enjoyable one, and if everybody did not go home wiser and better and happier it certainly was not the fault of Santa Clara Grange. G. W. M.

Santa Clara, April 25th.

Harvest Feast at Danville.

Editors Press:—Upon the kind invitation of Bro. Wood, Bro. and Sister Blanchar, Mrs. Gardner and the writer left the city of San Francisco on the morning of the 30th, at seven A. M., to attend a harvest feast at Danville, Contra Costa county. At the depot in Oakland we found a fine team and carriage in waiting, that had been secured by the provident care of Bro. Blanchar, and we were soon whirling at a lively speed on our way to Danville, by way of Walnut Creek. Two or three miles out from Oakland we overtook Bro. Cressey with his fine horse and carriage, wending his way in the same direction. We entered Danville a little before 12 o'clock M., where we found the members of the Grange assembling for the harvest feast. In usual country style there were teams tied to the railings prepared for that purpose in front of their beautiful and commodious Grange hall, and others tied to the fence on the opposite side of the street; while others were depositing their rich loads of blooming youth and cheerful middle age, each as they passed from the carriage to the hall carrying something to supply or adorn the harvest feast that was in waiting for us. Our coming was a surprise to nearly all but Bro. Wood and the Worthy Master Bro. Sherwood; and we were glad it was so, for it is always pleasanter to visit where you feel that you have not been the means of putting your entertainers to extra labor. Many expressed their regrets that they had not known of our coming, that they might have exerted themselves to get a larger attendance; as it was the attendance was much greater than we had anticipated. Deputy Master Jones, of Walnut Creek Grange, was in the chair, and the fourth degree was conferred in commendable style. Afterwards we were all invited to partake of the harvest feast. The table was literally filled with the choicest productions of the farm, prepared in the most attractive style and possessing the relish that the ladies of the country alone know how to impart. I should like to visit Danville Grange some time when they were expecting company, just to see what it is possible for them to do. Their every day manner of living is simply *par excellence*.

The feast having been completed, labor was resumed and the closing instructions given to the newly advanced brother. When the other orders of business were passed, the Worthy Deputy announced that they would proceed under the head of "The Good of the Order." Bros. Cressey, Blanchar and the writer were invited to address the Grange.

Bro. Blanchar proceeded to give a history of the Fire Insurance Association which he represented, showing them the importance of giving strength to all the branches of business instituted by the Grange, and the very large saving they would make for themselves by insuring each other. Also, that in doing so it could be done at a very much less expense than by insuring in other companies, and that the money required to so insure would be all the time under the control of the farmer, and would aid them materially in harvesting their crops and marketing the same. I should like to give you a synopsis of all that was said, but I see I shall make my letter too long.

The writer was then called upon. Having been at the front since the Grange army was first organized, he gave a brief statement of its maneuverings as they had come under his observation. He spoke of its successes and defeats, expressing the belief that we had learned wisdom from defeats and strength by discipline and experience, and that a bright future awaits us. Also, he gave a full history of the origin and workings of the Immigrant Bureau, with which he is connected.

Brother Cressey, who is never at a loss for good words to entertain his hearers, had kindly waited until Brother Blanchar and myself had spoken our little pieces. Then he responded to the invitation extended to him to address the meeting, and gave us a very interesting talk of about an hour's length, which was attentively listened to.

Brother Wood offered a motion that the thanks of the Grange be extended to the San Francisco delegation for their presence and addresses, which was unanimously carried. Remarks by Brother Jones, Brother Wood and others were made and the Grange was closed, adjourning to meet in two weeks. Brother and Sister Blanchar, Mrs. G. and the writer went to spend the night with Brother Wood and his amiable wife and interesting family, arriving at his place about five o'clock, P. M. His place is situated two or three miles up the valley from Danville. We accompanied Bro. Wood "to the top of a not very high mountain," on his farm, and overlooking his vast domains of rich mountain and valley land. On the top of that mountain or high hill Bro. Wood has some excellent wheat, which bids fair to produce from twenty to thirty, and possibly more sacks to the acre; and the beauty of it is that such a thing as drouth is never known to them in that part of the country.

Brother Wood exemplifies the special objects set forth in the declaration of purposes in our National Grange, viz: "To diversify our crops, and crop no more than we can cultivate." There are many useful lessons to be learned from Brother Wood's experience and example in farming. Brother Cressey accompanied Brother Cressman to his fine residence, which we had the pleasure of visiting the next morning.

We spent a very pleasant night at Brother W.'s, talking till a very late hour, and retired at the early hour of 11 o'clock, leaving Brother and Sister Blanchar talking insurance—the Fire Insurance which Brother B. represents and the Mutual Indemnity Life Insurance which Sister Blanchar so ably explains.

Leaving Brother Wood's at about 11 o'clock, A. M., we wended our way homeward via Haywards, which is certainly one of the pleasantest drives in the State. I. G. Gardner.

From the Granges.

Azusa Grange, No. 94.

Editors Press:—A beautiful and kindly feeling was this day exhibited at Azusa, Los Angeles county, in the planting of memorial trees at the late homes of Sister M. A. Barnes and Brother W. W. Maxcy. The Azusa Grange and a large number of people were present. An elegant collation was prepared by the ladies. A few kind and very appropriate remarks were made by Brother G. H. Peck, of El Monte Grange. The whole was under the auspices of the Azusa Grange, of which Brother W. W. Maxcy had been the first Master. The Grange was present in force and in regalia, Worthy Master I. S. Thompson presiding. The speaker in concluding said: "These trees are beautiful emblems of our respect for the dead and of kind wishes for their families. The best way to show our high esteem for the departed is to be kindly regardful of those they have left behind." J. C. Preston, Sec'y.

Azusa, Los Angeles Co., April 5th.

The Debris Question.—We have received information from M. F. Honan, Secretary of Yuba City Grange, that Florin Grange has unanimously adopted resolutions approving the action taken by Yuba City Grange relative to the destruction of agricultural property by mining debris. The members of Florin Grange express a willingness to assist to the fullest extent of their ability to speedily adjust the difficulty between these opposing interests. Brother Honan says further. "A copy of these resolutions have been set to every Grange in this State, and as soon as they shall have reached their destination, and have time to be acted upon, we expect to receive assurance of assistance from all parts of the country, and to see the action of the various Granges on this matter noticed through the press from Siskiyou to San Diego.

Brotherly Feeling.—We receive from J. M. Horner, Master of Centerville Grange, a letter of thanks from an afflicted brother, E. H. Frick, for the practical and brotherly aid rendered to him by the Grange during his illness and affliction. Bro. Frick writes: "Not only am I thankful for the money sent me by the Grange, but doubly so for the aid rendered me in putting in my crop, which if working alone day and night until now I could hardly have finished. But the grain is now up and growing nicely, thanks to the Great Master and my brother and sister Grangers. The assistance being rendered by the brothers with such hearty good will deserves the blessing of the Great Master, as well as my gratitude. They came with teams, seed, plows, harrows and seed sowers and worked cheerfully until all was finished."

The Grangers' Enterprise.

The enterprise of the Grangers' business association has entered a tangible phase, as is evidenced by the eight or ten teams that have been for the past week, with plow and scrapers, raising the grade of the grounds for the warehouse sites and roadways; and the progress made in the work is a great incentive to its further vigorous prosecution. This is the first important co-operative enterprise in which any large number of the people of this section of the county have been engaged; and is one that commends itself to their judgment as well worthy of their effort, being within the compass of their financial means and certain to inure largely and directly to their advantage, not only in the means it will afford of placing their products within reach of the world's competing purchasers and at a point of direct export shipment, but one that must invite and incite further enterprise that will give us the internal transportation facilities we so greatly need and desire. No agricultural section in the State of anything like equal attractions and resources offers so favorable an opening for a railroad of light cost and operating expenses as this of ours, lying between Carquinez straits and the Amador valley; and it will not long remain unimproved after the Grangers' wharf, extended from shore to ship channel, has called the attention of the outside world to the hitherto much secluded and unknown section of attractive and productive country, lying so near the chief mart and metropolis of the coast.

Everything now indicates that the wharf and warehouses will be completed in season for receiving and shipping grain this season; and there can be no doubt that the whole cost of the structures will be returned in the saving of freight charges and better rates realized for produce, before the expiration of another, if not during the present season.—*Contra Costa Gazette.*

Union Meeting at Yuba City.—George Ohleyer, Secretary of Farmers' Co-operative Association, informs us that there will be a joint meeting of Patrons with the Yuba City Grange at one o'clock, P. M., on Tuesday, May 16th. The discussion will be concerning the various enterprises of the Order and the good of the Order generally. As we understand it, Patrons from neighboring localities are invited to be present.

In Memoriam.

Whereas, on the 22d of April, after an organization of nearly three years, Our Grange Circle has been broken for the first time, by Our Divine Master's translation of our cherished sister, Mrs. Isabel W. Collins, to the "Better Land,"

Resolved, That by the departure of Sister Collins from our field of earthly labor, Temescal Grange has parted with one of its most sterling, cheerful hearted and noble minded Patrons, and her family with a fond, faithful, Christian wife and mother. That the influence of her kind and truthful acts will ever continue with us. That we truly sympathize with our afflicted brother, our Worthy Secretary his son, and their entire family. That this heartfelt expression of the Grange be inscribed on our records, and official copies delivered to the family of Sister Collins, to the local papers and the Pacific Rural Press. [Committee—Sarah H. Dewey, J. V. Webster and C. J. Cressey.

Oakland, Cal., April 25th, 1876.

The following action has been taken by Potter Valley Grange:

Whereas, In the inscrutable ways of our divine Master we are again called on to mourn the loss of a young friend and brother, therefore, be it

Resolved, That in the death of Brother W. O. Eddy, Potter Valley Grange has lost a good and worthy member and his parents a kind and dutiful son.

Resolved, That we extend our fraternal sympathy to the relatives and friends, in this their hour of trouble.

Resolved, That these resolutions be engrossed on the minutes of this Grange, and a copy be sent to the Rural Press for publication.—[Committee: E. L. Maze, S. H. McCreary, Mrs. A. H. Slingerland.

To the Members of Badger Flat Grange, No. 79, P. of H.:

We, the undersigned committee, respectfully submit the following to the memory of our late departed sister, Mrs. Mary Louisa Stockton, wife of our Worthy Master, Wm. J. Stockton,

Whereas, He who doeth all things well has seen fit in His mysterious Providence to remove from our midst our highly esteemed sister, and, while we recognize His wisdom in all things, we can but sincerely mourn the broken link in our fraternal chain.

Resolved, That we extend our heartfelt sympathy to our bereaved brother and also to her mourning relatives and friends.

Resolved, That whilst we deplore the loss of our lamented sister, we will endeavor to live so as to be ready to exchange mortality for immortality, and form an unbroken Grange above in that "House not made with hands but eternal in the Heavens."

Resolved, That these resolutions be entered on the minutes and a copy be sent to the Pacific Rural Press for publication.—[Committee: Mrs. S. S. Clarke, Mrs. P. Archibald, James N. Herndon.

General News Items.

Commodore Vanderbilt is seriously ill.

The public debt was reduced $2,780,000 in April.

A Young lady of this city, disappointed in love, committed suicide last week.

Mark Twain appeared successfully on the stage in the "Loan of a Lover," in Hartford, Wednesday.

It is considered probable that the Oxford university boat crew will compete in the Philadelphia Centennial regatta.

Senator Sargent is confident that, in regard to the Chinese question, by the thorough presentation of the subject which he proposes to make to the Senate, all important action as part of the treaty-making power can be secured to accomplish the desired result.

Agricultural Notes.

California.

COLUSA.

Cotton.—*Sun*, April 29: Quite a large area of cotton will be planted in the "basin" betweeen Colusa and Sycamore slough. Messrs. Rutland & Reed have planted now about 150 acres, and will plant about 100 more. J. P. Bainbridge will plant from 25 to 50 acres. Thad. Jones will plant about 50 on the east side of the river. Some of the first planting of Rutland & Reed is coming up nicely. They are putting the ground in excellent condition, and Mr. Rutland says the land and everything else is much more favorable for a good result than he had when he tried the experiment two years ago. The seed planter, invented by Mr. Reed, is a complete success. We are glad that cotton is in a fair way to be tested in this valley. We still have faith that it is yet to become one of our great staples.

No Poor Land.—We took a ride last Monday from town out west to the foothills. On the road there is a great deal of low flat, alkali land, which has always been barren of vegetation, except a small deep-yellow flower, and it has been considered about the poorest strip of land over which one could travel in going across the valley. Of course this land is in spots, and there is a great deal of very fine land on the route. To say that everything looked splendid would be to repeat simply what everybody knows, for grain looks well everywhere in the State. What struck us as remarkable, however, was the luxuriant growth of grain on land that we have considered too poor to think of bringing into cultivation. Some years ago we all thought that the river land was all that would ever be made profitable for agriculture. Then we took in the allnvial deposits along the creeks that made out from the foothills; then we had to take in the "adobe;" then the "self rising;" then the bunch grass land; then the rolling red land; then the low hills. This left nothing but the alkali spots under our displeasure. Everybody agreed that nothing could be done with these, but we have got to weaken on that too. *Cultivation* is everything. There is not an acre of land in the Sacramento valley that cannot be made to produce with the proper *cultivation*. All along on this route we found good grain on land heretofore under the ban; but J. W. Potts has in a field of wheat ten miles west of town, that it is worth the while of any man who takes an interest in such matters to go and see. All around it is the white alkali—in the field, wheat that will make 30 bushels to the acre! This is the result of three *deep* plowings and a small sprinkling of sheep manure; for all of which work he will be paid by the present crop. This has led us to believe that there is not an acre of land in Colusa county that will not be brought under cultivation in the next few years.

Almond Culture.—The Newland Brothers, residing about five miles from town, have in bearing this year something over 2,000 almond trees. The situation is not a favorable one for the frosts, and their crop has been killed for several years back. Most of the trees will have some almonds this season, but so many were killed that they count the crop a failure. On some of their older trees they have realized as much as twelve dollars in a season per tree, and counting their loss this year at one-sixth even of that amount, and it becomes a rather serious one.

CONTRA COSTA.

Tule Manufacture.—Antioch *Ledger*, April 29: About a year since a factory was established at this place for the manufacture of upholstering material from tule. One of the partners retired from the business before active operations were commenced, when Mr. Sheffield purchased the manufactory and is now in a fair way of doing a thriving business. Steam power is employed in preparing the tule for market, and there is a large field for extensive operations in this novel business. Mr. Sheffield recently shipped 50 bales of prepared material to San Francisco, and experts adjudge it to be more durable, cheaper and in every way more desirable than the excelsior now in general use, and which is shipped in large quantities from the Eastern States to California. The prepared tule material is soft, spongy, fibrous and has great durability. Thousands of acres of tide land in the immediate vicinity afford abundant material, to be had for the labor of cutting, and as the value of this new introduction is appreciated, no doubt the demand will continue to increase.

FRESNO.

The Wool Industry.—*Expositor*, April 26: From what information we can gain from those engaged in wool growing in this valley, we are led to conclude that this important business, when conducted on a large scale, except under extremely favorable circumstances, has failed to be longer remunerative. The increased value of land and high rental demanded, against low value of sheep and the price of wool, have combined to bring about this result. A change will have to take place before this state of affairs can be improved on. Sheep will have to be divided into smaller bands and the capabilities of the land increased by cultivation. When this is done sheep raising will again become profitable.

KERN.

How the New Style of Assessing Works.—*Californian*, April 27: Our County Assessor, aiming at the public interest, conceived the idea of taxing wool, and then taxing the sheep that produced it. He seemed to invent the theory, and is entitled to much credit for improving a system entirely new to the revenue officers of the rest of the State. That it has some merit is clear, provided the sheep are assessed for one price with the fleece, and a different valuation without it. But the weakness of the plan is made apparent with the facts presented last week. Mr. R E. Thompson, a thrifty farmer living in Los Angeles county, sheared his flock at his farm, and, as Bakersfield was the nearest market, he brought the wool to this place. On its arrival he was surprised with a notice from the Assessor to pay the taxes on it or it would be subject to seizure. He promptly paid the tax, but naturally looked upon the proceeding as an imposition, and very freely expressed his views of it. Being a man of rare business qualifications, it struck him that, as a business proposition, it was a sort of Chinese problem, too deep for ordinary study. In the first place, it was a new idea, taxing the product of the farm after it had arrived in market. Grain was taxed in the field, stock was taxed there, and the tax on the animal included its hoof, its hide and its hair. Mr. Thompson lives near the county line and is taxed on his sheep at their full value in Los Angeles county. He takes the wool off and comes to Bakersfield to exchange it for supplies. Should he return, kill the animal, and bring the hide down here, he would be taxed for that, and afterward, should he dry the meat and bring it to this market, he would fall into the hands of the assessor again. Mr. Thompson naturally considers the process a strong hint to shun Kern county with his products.

LOS ANGELES.

Cactus for Upholstering.—*Express*, April 29: An excellent article of upholstery padding has been manufactured by Mr. J. W. Findley from the bayonet cactus. It is designed to take the place of curled hair, and is far superior to the Eureka and other fillings. The process of manufacture is very simple and easy. Mr. Findley has applied for a patent on his discovery, and with his partner, Mr. C. F. Holman, will soon commence to make up the material for market. Upholsterers of our city who have examined Mr. Findley's specimen pronounce it a first-class article, and have offered from 10 to 15 cents per pound for it in quantities.

More Potatoes.—Our farmers and truck gardeners are begining to turn their attention largely to the growth of potatoes, and to-day we are not far from supplying our local demand. At the most, in two years from date we shall raise our own potatoes and have abundance for export.

MERCED.

Miller & Lux Property.—*Valley Newspaper*, April 29: Just beyond Hill's Ferry we come to the kingdom of Miller & Lux. Their lands extend a distance of 68 miles, and this body is from five to 40 miles wide. On the east side they have other smaller tracts. Henry Miller, Esq., who takes personal charge of the real estate of the firm, here and in other parts of the State, displays a wonderful executive ability, and furnishes employment to hundreds of men. He has what is known as the "Home ranch," and the "Canal ranch," besides several dairy ranches on this body of land. He keeps an army of carpenters, wagon makers, fence builders, teamsters, farm hands, etc., not omitting detectives, and it is said he knows just what all of them are about. This year the acreage of grain is not so large as in some former years, being only about 3,000 acres. There are on the premises 2,500 acres of alfalfa, from which last season three crops were taken and the fields twice pastured; there are also 1,400 acres just sown the present season. We were informed by one of Miller's men that there were two strings of fence on this land each 68 miles long, besides the various cross-fences. To give some idea of the cattle belonging to this young kingdom, we were informed that this year they branded 25,000 calves. Aside from owning a large interest in the San Joaquin and Kings river canal, which runs from the mouth of Fresno slough to Los Banos creek, a distance of 40 miles, Miller & Lux are also constructing a canal on the east side of the San Joaquin, which is intended to take water from some of the numerous sloughs in that region and overflow their pasture lands in the dry season.

NAPA.

The Wine Growers.—St. Helena *Star*, April 29: The adjourned meeting of the Vinicultural society was held last Saturday afternoon, as announced. Discussion arose on the subject of grafting. Mr. Pellet asked of Mr. Lewelling, if grafting at the present time was as good as that done earlier in the season. Mr. Lewelling said he had grafted all the way from December to the present time; thought that early grafting was best; had some December grafts, now four inches long. Mr. Crabb, of Oakville, exhibited a sample of wine made last fall, of Deschia, Tokay, Hamburg and Zinfindel, of a very fine quality both in dryness and flavor. Mr. Lewelling also exhibited a sample of Catawba wine, (new), of such exquisite flavor as to elicit the warmest encomiums from all present.

SACRAMENTO.

The Snow and Planting.—*Record-Union*, April 28: The farmers along the Sacramento, Feather, Yuba and American rivers, are anxiously waiting for the snow in the mountains to melt and run down before they dare plant their low lands. For the information of all such, we would state that although the melting of the snow has been very gradual it has been more constant than has been usual in seasons of so much snow as the present. We are informed by Captain G. T. Witham, a conductor on the overland railroad, running from Sacramento to Truckee, that the quantity of snow in the mountains is very much reduced; that where the snow two months ago was 15 feet deep, it is now not more than two feet deep, and is quite rapidly being reduced. He thinks that there is but little danger that the water in any of the rivers will be much higher than at present, unless there should come a warm rain, and that with the present rate of melting the rivers may be expected to begin to fall permanently for the season by the middle of May. This will be in time to plant corn and squash for fodder and stock feed, and good potato land if put in good condition may also be depended on for a good crop after that date. On light, loamy soil that retains moisture well, barley and alfalfa seed may also be successfully sown and grown for hay after that date.

SAN BENITO.

Safe from Fire.—*Advance*, April 29: Flint, Bixby & Co. have adopted the plan of belting their grain fields into small sections with avenues of beets. This plan will prove a safeguard against a recurrence of disaster from fire, and it is one which others might adopt with profit.

SAN JOAQUIN.

Wheat.—Stockton *Independent*, April 28: We learned yesterday that a small lot of prime wheat was sold for $1.55, and shipped to San Francisco. Another lot was purchased at the Grangers' warehouse for $1.50. We were informed last evening that E. Hildreth yesterday sold his crop of 250 tons of wheat, stored in the Stockton warehouse on Mormon channel, for $1.80. Another lot stored in the same place, belonging to Mr. Wells, sold for $1.70. There is such a startling contrast in these figures on the same day that we are very much at a loss to know how to account for it. Will the wheat experts rise and explain?

SAN LUIS OBISPO.

Ravages of the Cutworm.—*Tribune*, April 29: A large portion of Mr. Andrews' vineyard has been badly injured by the swarms of cutworms that abound. Mr. D. F. Newsom informed us that he had saved his crop of grapes by going through his vineyard every morning and killing the vermin as they were feeding off the tender sprouts. Where there are indications of them a raid should be made upon them early in the morning, and later in the day a careful hoeing at the root of the vine will unearth them from their midday slumbers. Mr. Andrews says that cutworms always succeed a wet winter.

The Orange Pest.—A pleasant hour was spent with Dr. W. W. Hays, whose beautiful grounds are near the old Mission. What more particularly interested Mr. Cooper was the ravages of the scale bug, which, within a period of fourteen years since it first made its appearance has so devastated the olive tree that fruiting has become a rare exception instead of the rule, as previous to the appearance of this pest. We found it upon the orange, lemon, oleander, fuchsias and acacias, and to how many other trees and plants it extends no one knows. The orange orchards of Los Angeles are full of them, and unless prompt measures are taken to check them, they will become to semi-tropical fruit culture what the phylloxera has to the vineyards of Europe.

SANTA BARBARA.

Potatoes on Mesas.—Lompoc *Record*, April 22: Mr. H. C. Stevenson has demonstrated most satisfactorily that the mesa lands, embracing 5,000 or 6,000 acres, will produce the earliest varieties of the potato, and have them ready for shipment early in March. This will depend somewhat upon the time the fall rains set in. If about the middle of November, then March first will afford ample time to produce a crop. We regret the earlier varieties were not obtainable, owing to the excessively bad roads and defective communication about planting time. Another year will find our colonists fully prepared to take advantage of every emergency, and be enabled to ship to the city market from our landing, a hundred thousand sacks of the choicest potatoes, between March first and April 15th. The mesa land will be thoroughly tested as a corn and bean producing soil. Should these mature acceptably, the land from which early potatoes are taken hereafter will be made to produce one or the other of these crops, thus giving ample time to grow two crops annually.

SONOMA.

Banana.—*Democrat*, April 29: A banana raised from the bulb is thriving in Col. Armstrong's garden, after exposure to all the storms of the past winter. Who will say now that tropical fruits cannot be raised in this climate? Oranges and lemons are also doing well in Santa Rosa.

Gum Trees on Salt Marsh.—*Argus*, April 28: An interesting experiment is now being made by H. Stockdale in this city, to test the question as to whether our salt marsh lands will grow blue gum trees. The "knowing ones" shake their heads with derision, but Mr. Stratton, who furnishes the young trees for the experiment, is confident they will. He says all that is required is simply to keep the salt water off the surface. All the experiments that have been made show that the brackish moisture in subsoil has no perceptible injurious effects. We shall this season watch their growth with interest, and lay before our readers the result.

Alfalfa.—Dr. J. S. Shepherd, of this city, has a small patch of alfalfa in his back grounds which was seeded about 12 months since, from which he has taken two heavy crops of hay this season. The only irrigation ever done was for a few days last fall. From another patch which has been in six years, he has cut three crops this season. The Doctor, as a natural consequence, is loud in his praise of alfalfa.

Ocean Township.—*Democrat*, April 22: Ocean township, in Sonoma county, lies along the coast just north and south of the mouth of Russian river. It is rich in redwood timber, in fencing timber, in cord wood and tan bark. No part of this great county surpasses it for dairy products and for the growth of such agricultural staples as are adapted to the immediate coast, especially potatoes and oats. It was the very first portion of this State settled by Europeans north of the bay of San Francisco. It was selected by the Russians as a grain field as early as 1812. From that time until 1840 annual shipments of grain were made from thence to Sitka. Following is an accurate statement of the dairies in that township: B. Sartori, 150 cows, daily average butter, 150 pounds; A. Stump, 115 cows, daily average butter, 115 pounds; Mrs. Rule, 108 cows, daily average butter, 110 pounds; Moore Bros., 130 cows, daily average butter, 130 pounds; Perinoni, 100 cows, daily average butter, 100 pounds; John Orr, 27 cows, daily average butter, 27 pounds; Geo. Hammy, 25 cows, daily average butter, 25 pounds; Joseph Knowles, 18 cows, daily average butter, 18 pounds; A. Mayer, 104 cows, daily average cheese, 108 pounds. Mr. Mayer makes both Limburger and cream cheese. The former sells readily at 18 cents and the latter at 25 cents per pound. In some of the above dairies the average of butter per cow may be higher, and in others lower. The quantity of butter per cow depends somewhat on the number of calves raised and the quantity and quality of milk given them. Some of this dairy produce is shipped from Duncan's landing by steamer *Alex. Duncan*, and some is hauled to Bodega bay and shipped from there.

VENTURA.

An Estimate on the Grain Crop.—*Free Press*, April 22: Observing and reliable farmers estimate that the yield of cereals will exceed that of last season by nearly one-third. It has been estimated that fully 280,630 sacks of grain were exported from this county from the crop of 1875. One-third added to that will give the enormous quantity of 374,173 sacks. The farmers in many parts of the county are now busily engaged in cutting their hay. Already the volunteer and early sown grain have begun to turn, and some say heading and threshing will begin within six weeks, if not sooner. The crop is certainly very forward throughout the county, and it is not improbable that grain from this and more southern counties will find its way to the San Francisco market a month earlier than any from the northern counties.

Oregon.

Prospects in Salem.—Editors Press: I see but very little in your paper concerning Oregon, so I thought I would let you know what nice weather we are having. There was but little fall wheat sown, on account of the rain, but that little promises a good yield. The Salem, Howels and French prairies have sown no spring wheat—don't know when they will. The farmers started to plow in March, but after two days the rain came and their plows have been rusting in the fields ever since, and are likely to stay there several weeks longer, as the ground is like mortar. The farmers are watching the rain and "cussing the weather." We have had nearly six months of steady rain, and if it continues much longer it will break half the farmers in Oregon. Oats are very dear—73 to 75 cents per bushel for feed and 80 to 85 cents for seed oats, and not enough to supply the demand. I, for one, am sick of Webfoot and will come to California if I can sell at a decent price.—E. C., Salem, Oregon, April 24th.

[We trust the season may not prove so disastrous as our correspondent now believes.—Eds. Press.]

Sales of Farming Lands.

Alameda.

The Beard Property Sold.—We learn that James R. Keene, a gentleman well known on California street, San Francisco, has bought out all the landed interests of E. L. Beard, Esq., of Mission San Jose, except his homestead and mill property. The mill and milk rancho have been bought by J. M. Livingstone. The beautiful homestead will still be occupied by Mr. Beard and family. Mr. Keene has removed his family to the Mission, where he intends, we understand, to erect suitable buildings for a summer residence. The energy of such a man can do much to beautify and adorn so lovely a place as Mission San Jose. The amount of land bought by Mr. Keene is 4,540 acres, and the amount bought by Mr. Livingstone, is 3,062 acres.—*Independent*.

Auction Sale at Mission Peak.—The sale by Mr. Corbett, near Mission peak, last Tuesday, came off as announced. There was a fair attendance of buyers and speculators. The land, consisting of some 550 acres, more or less, was sold to Mr. Wm. Blacow at $9,000, including the house, outhouses and other improvements. This amounts to $16.37 per acre. A lot of stock and other personal property was sold, bringing fair prices generally. About $5,000 worth of this sort of property was sold. The most valuable stock was preserved by the owner for his own use.—*Independent*.

The Centennial Cantata.

At the opening of the Centennial exposition, May 10th, the following cantata, written by Sidney Lanier, will be executed. Mr. Lanier's verses must be read with constant reference to the inevitable restrictions of his task. Limited to 60 lines, in which not only the solos and choruses, but also the violins and bassoons must have their share; compelled to tell his story, not in poetic recital, but through the medium of reflection and contrasted emotions; governed, finally, in the very sounds of his words by that of the notes to which they are set, his work is amenable to a separate law, and may fairly assert its right to a separate judgment. The verses represent, as largely as the space allows, the past and present of the country, the powers which opposed themselves to settlement, growth and independence, and the blended elements which gave success, closing with rejoicing, an angelic voice of promise, and a welcome to the world. It is both simple and original in character. Mr. Lanier entitles his cantata

The Centennial Meditation of Columbia.

I.

From this hundred-terraced hight
Sight more large with nobler light
Ranges down yon towering years:
Humbler smiles and lordlier tears
Shine and fall, shine and fall,
While old voices rise and call
Yonder where the to-and-fro
Weltering of my Long-Ago
Moves about the moveless haze
Far below my resting-place.

II.

Mayflower, Mayflower, slowly hither flying,
Trembling Westward o'er yon balking sea,
Hearts within *Farewell dear England* sighing
Winds without *But dear in vain* replying,
Gray-lipp'd waves about thee shouted, crying
No! It shall not be!

III.

Jamestown, out of thee—
Plymouth, thee—thee, Albany—
Winter cries, *Ye freeze: away!*
Fever cries, *Ye burn: away!*
Hunger cries, *Ye starve: away!*
Vengeance cries, *Your graves shall stay!*

IV.

Then old Shapes and Masks of Things,
Framed like Faiths or clothed like Kings—
Ghosts of Goods once fleshed and fair,
Grown foul Bads in alien air—
War, and his most noisy lords,
Tongued with lithe and poisoned swords—
Error, Terror, Rage, and Crime,
All in a windy night of time
Cried to me from land and sea,
No! Thou shalt not be!

V.

Hark!
Huguenots whispering *yea* in the dark,
Puritans answering *yea* in the dark!
Yea, like an arrow shot true to its mark,
Darts through the tyrannous heart of Denial.
Patience and Labor and solemn-souled Trial,
Foiled, still beginning,
Soiled, but not sinning,
Toil through the stertorous death of the Night,
Toil, when wild brother-wars new-dark the Light,
Toil, and forgive, and kiss o'er, and replight.

VI.

Now Praise to God's oft-granted grace,
Now Praise to Man's undaunted face,
Despite the land, despite the sea,
I was: I am: and I shall be—
How long, Good Angel, O how long?
Sing me from Heaven a man's own song!

VII.

"Long as thine Art shall love true love,
Long as thy Science truth shall know,
Long as thine Eagle harms no Dove,
Long as thy Law by law shall grow,
Long as thy God is God above,
Thy brother every man below,
So long, dear Land of all my love,
Thy name shall shine, thy fame shall glow!"

VIII.

O Music, from this hight of time my Word unfold:
In thy large signals all men's hearts Man's Heart behold:
Mid-heaven unroll thy chords as friendly flags unfurled,
And wave the world's best lover's welcome to the world

Farm House Chat.

[Written for the PRESS by MARY MOUNTAIN.]

During long confinement indoors in rainy weather there is great tendency towsrd somo sort of mania; and women with nimble fingers will reel off an sstonishing length of tatting, or crochet-edging, patchwork and carpet rags, to say nothing of the family mending and the bewitching temptation to make old things over into new.

But the mania of thought is still more whimsical, snd for days I have not been able to forget those "Peabody Buildings in London." Why should they build 250 kitchens in one block of homes? Why not have one great kitchen for the whole, fitted up with labor-saving machinery, and with some attempt at co-operative management? Each family could order its meals for the day the evening before if desirable, and thus there would be great chance for economy by the purchase of food in large quantities instead of in driblets. Then the best qualified men and women could be hired as cooks, and the rest left free for other work. At regular hours the well cooked food would he delivered and each family could eat with as much "strict seclusion" as though it had boiled its own pot and baked its own private potatoes.

Who can deubt that the present inexorable fashion of building a kitchen in every house will by-and-by be looked back upon with tho same superior feeling of toleration that we now feel toward the cast-off fashions of our grandfathers? There is surely as much good sense snd wisdom in arrsnging for the scientific and lsbor-saving production of daily rations as for the wholesale manufacture of cloth, ready made clothing and hundreds of things that were formerly obtained only by the toil of individual households. Of conrse there would be great shifting of burdens in all directions; the kingdom of Bridget and John Chinaman would come to grief, and a world of domestic fret and worry would be turned out of doors and disappear forever. Just think of the tired mothers left free to enjoy life with their children, to train them up properly, and also help to look after all children, so that there would be no more fear of hoodlums; and instead of—— but by this time I was thinking alond, and Aunt Doxy, who hardly ever has a word to say, began to bristle up and ejaculate:

"Well, instead of what? Seems to me your fine schemes are all for women in town, and Lord knows they've hardly enough to do now to keep 'em out o' mischief. Train up ther children! I've seen 'em order ther little children straight ont inter the street and tell 'em not ter come home till dsrk and then the 'tired mothers' would sit down easy to ther flutin' snd ther prinkin', with all sorts of fsshionable frumpery. Now, if I was a writin' for a farmer's psper, I'd stick ter my text and tell somebody how to mske a johnny-cake."

"Good for you, Aunty, and I just wish you would, for I exhausted myself on the johnny-cake subject long ago. Bnt don't you see this co operative business is really going to help the farmers and their wives more than anybody else?"

"No, I don't see any such a thing. If a womsn lives two or three miles from ovory-body aud got a gsng of men to cook for, or a house full o' company for instanco, and just her own two hands, whos' a-going to co-operate and keep her from breaking down with hard work? Tell me that if you can."

"If she really cannot have help from the 'great outside' she mnst co-operate with her husband and her children, snd with some of the people who crowd her table, perhsps. She may have to stir them up and show them their duty, and most women haven't that gift. It seems too bad that so many over-worked women will not live to see the good time coming when all things will be so different. Twenty-five years ago we could not imagine a sewing machine, because we only thought of one sort of needle and the old familiar way of pushing it through the cloth. Now, if co-operation means anything, it means finally that a thousand hard working poor people need not live wretchedly cooped up on a few thonsand square feet of earth, while out in the country one hard working family is trying in vain to occupy a thousand acres. Why should we not live like those thrifty Dutch folks we were reading about? Farmers to be sure, but the families live together in village fashion, aud every morning away trndge the lsborers to field work—not immense fields that make one tirod to look across—but small, well kept and precious, yielding the richest crops, and everybody living so comfortable, almost without a quarrel or a crime. If the Grange work goes on to perfection won't it lesd this way?—to smaller farms, more thorough farming, and as machines take the place ot man power, so they will of woman power as the farm houses move nearer together aud mako it possible to co-operate, not only in large affairs of business but in every-day hard work, like cooking, washing, ironing snd even 'having company.' Who knows?" Aunt Doxy gave a scoruful sniff and answered briefly:

"Such doings might suit a new race of humsns, bnt give me my own old ways. If ther's anything I do despise, it's meddlin' and mixin' up with other folks' affairs."

"Bnt folks will get over this jealonsy of their own 'ways,' Aunty, snd learn to like a more liberal, socisble way of doing things. You and I can remember when religious people were so atiff and bitter, life-long enemies sometimes after a qnarrel over their slightly differing creeds. And while the orthodox denominations could hsrdly treat each other kindly, they all sgreed in hating and dospising the Shaker, the Universalist, the Unitarian, or whoever failed to follow the prevailing fashion of religions thought. But now they begin not only to co-operate with each other, but also with those they once looked upon as mere religious, or almost irreligious outlaws. And as this change has come about within a score of years, may we not hope for equally great aud glorious social and industrial changes?

"In the first place, co-operation——," but I shall never get any further with that sentence, for Uncle Toby rouses with a growl and a clatter that makes the inkstand shiver and begins his little speech by repeating scorufully my last words:

"*In the first place, co-operation?* In the first place *honesty*, I say, and in the next place a law and a public opinion that will make short work of a swindler, whether he steals from the pocket of his neighbor or the treasury of the nation."

(Heroupon the subject spins out long enongh to fill a whole RURAL, but like all slack yarn of speech, needs to be double-and-twisted before it is ready for use.)

Woodside Papers.—No. 5.

[Written for the PRESS by JENNIE E. JAMESON.]

Mrs. Payson had company one cold, pleasant afternoon. Miss Moulton, who had a great liking for Aunt Keziah, came, with two of her young lady friends, to see her. She had gone to the village upon a little shopping excursion, so they waited for her. Mrs. Brown had returned to hor home, after stsying twice as long as she had snticipated when she came. She was missed very much at Woodside farm, bnt was needed at home, where she had two "boys," as she called them—though they were both over twenty years old—to care for. Winter had come. Winter at Woodside did not mean mnd, rain and a general "spell" of mild, moist weather, but a time when every nerve mnst be strained to meet the cold; when the leaves had all forsaken the trees, aud left them to swing their bare, brown arms in a helpless, disconsolate way, nntil, in the spring, they should receive their fresh, beautiful green dress; and whon the earth, all frozen, stiff and brown, was covered with its fleecy white mantle. Upon this afternoon the anow, somewhat icy upon the top, glittered like a vast plate of glass in the snnlight, and Miss Moulton, who sat by the window looking for Aunt Keziah's retnrn, was glad to announce her coming, as her eyes could hardly endure the bright light. They knew, by the time Miss Peck had greeted them and settled herself in an easy chair, that something had seriously disturbed her peace of mind. Miss Moulton's friends, Bell Foss and Ina Gould, were respectfully anxious to hear Aunt Kezish talk, for Emma had told them that sho was "somewhat odd."

"Well, thore!" she commenced with a sigh, "it does best all how folks will act! It just makea me ache to see how folks dress! Do let me tell you about an individual I see down the village. I won't call her a woman; I sartin sha'n't call her a lady! She'd have done very well for a figger to stand in a store winder aud show the goods. On her head she had s-a-well, I s'pose she'd call it a hat. T'was made of velvet and ribben and flowers—and then the feathers! why, girls, you should have seen 'em! I should think she'd found Lo, the poor Iujun, somewhere, and made him give her all the feathers he'd found in furren parts. They used to call the bunnets 'sky-scrapers;' I should think her's was an *eye scraper*, by the way some of them sharp feathers went into the face and eyes of the girl that was with her when she bent her head down. Well, her hat was set back on her hesd, so's to show the 'lunatic fringe' that hnng over her forehead—and if thst ain't the most ri-dic-u-lous style, to cut a body's hair off in front and let it haug straight or curled, as it happens. I was in hopes it would go out of style, but it don't seem to. I'm glad somebody has given it the right name, fur, sure enough, its 'lunatic fringe;' and if you hnnt the world over, I don't believe you'll find a head-rig thst'll make a body look so bold as these feather-dusters set back on the head, and a friz of hair stickin' out in front.

"Her neck was loug, and there was nothin' hut pride and a little gold chain to keep it warm. In her hand she had whst I s'pose she thought was a handkerchief. 'Twas a little bit of mualin with a lace frill. Now, when I waa a girl, a handkerchief was a handkerchief—not a cobweb, and the more cloth you could get into 'em the better. They nsed to have 'em a yard square. Now, you needn't laugh, 'twas jost so! Gness I shouldn't have made the mistake I did once if they'd used such spiders' webs as they do now."

"What was it?"

"Well, yon see, one Sunday I wss goin' to a funeral np in Hardscrabble. 'Twas old Esquire Blake's, snd I knew the meetin' house would be full, so I put on my best rig, and took out my biggest hsndkerchief. We carried 'em in our hands mostly in them days. I snng on the gallery then, snd sot right in front, where everybody could see me. When the sermon got pretty perfectin' I unfolded my handkerchief—but oh, dear! girls, I had made a mistake, 'twas a *pillarcase!* snd I gness almost sll the folks see it. My face must have have b'en as red as the piny Sam Kendall had pinned on his vest. You may be sure that pillarcase was kept neatly folded the rest of the time.

"But I was talkin' about that individual down to the village. Her dress was fluted, and flounced, and bowed, and plaited, and hnmpte-dumpted np behind in a way that would make her great-grandmother groan with horror if she had seen her. I don't know what the world is comin' to, I'm snre. No wonder the young men dread to take npon themselves the reaponsibility of paying for such rigs. It's fashion and folly, folly and fashion! When I was young, girls thought more of bein' good cooks and housekeepers than ot 'knife-pleatin' and flounces. If I could talk like that Do-it Talmage, out to Brooklyn, I'd give 'em a dose on fashion."

"Speaking about getting married, reminds me that I've been aching for a long time to ask you why you never got married. If I were a man, and had been around when you were young I would have tried my powers of persnasion, I know!" cried Emma Moulton, placing her plump little self npon an ottoman, in front of Miss Peck, who "smiled out loud" at her earnestness and replied:

"Well, I can't say as Aunt Jerusha did, in a poem I come across to-day. Snppose yon read it ont loud, it may amuse your friends."

"Oh, delightful!" said Emma, and read the little poem:

Why Aunt Jerusha Did Not Marry.

"Do tell us, Aunt Jernsha," said some merry girls one day,
"Why it is you are not married? Now don't refnse us, pray;
For we think it is so curious, since yon are good and wise
That some one has not found you, when seeking for a prize."

"Well, girls," said Aunt Jerusha, in a story-telling tone,
"This talking about marriage is not my choice, I own;
But, as you are young and I am old, perhaps it may be well
To give my views on marriage, and some experience tell.

"In the first place then, dear children, 'tis my nature to be free.
And to obey a masculine I never could agree.
I know they promise to protect, to cheer you when you weep,
Bnt I'm naturally suspicions, and promises are cheap.

"And then, I like my earnings to spend just as I please.
Why, girls! I should be crazy, if a man I had to teaze
For every cent of money that I wanted for my clothes—
Not to mention my benevolence—the heathen and all those.

"I'm very fond of travel too, new scenes I much admire,
But a married woman has to sit in patience by the fire.
And whils *he* goes abroad, delightful things to see,
Her duty is to keep the house, and make his toast and tea.

"Bnt again, I'm very orderly; my rooms are still and neat;
How would they look if a careless man bronght mud in on his feet?
My birds, and cats, and other pets need all my time and care.
It's a *mercy* that has kept me from the matrimonial snare.

"I thonght once in my life-time, if a *very* superior man
Had asked me to *consider*, it might have changed my plan;
But if I'd met the paragon that fancy paints, yon see
He would have been so *perfect*, he couldn't have lived with me.

"But there's another reason;" and Annt Jerusha sighed;
The girls thought she would tell them that her youthful lover died,
But no! she said with dignity, and mild, though serions glance,
"The reason I'm not married is: *I never had a chance!*"

Emma glanced np, before reading the last words, and had the satisfaction of seeing that her audience were both anxious and sympathetic; then the change in the expression of their faces made her laugh heartily, and they were very willing to join her. "There now!" said Miss Foss, "how sudden was our descent from the sublime to the ridiculous. Poor Aunt Jerusha! I am glad that sho considered 'twas a *mercy* that hsd kept her 'from the matrimonial snare.'" "As I was sayin'," said Annt Keziah, "I can't say as Jerusha did, fur I've had several chsnces in my day; but I never see but one man I thonght I could marry, and he—well, he never got a letter I wrote him in answer to one of his (so I found out afterward), and he married another girl. They're livin' somewhere in York State now, I suppose."

"Oh, wasn't that awful!" cried the girls. "Well, yes, pretty awful, I guess; but I suppose it's all for the best, some way. It's no nse to worry, for I've no doubt it will come ont all right sometime. You know I believe in the promise—and that same promise is worth forty husbands. 'All things work together for good to them that love God.' I am happy and contented, even if I do get disgusted with some specimens of human natur, sometimes, and scold awsy 'till I feel better—and dearie me! they needn't call us 'superfluous women,' fur I don't see how the world could hardly jog along if it wssn't for single women. The married ones can't leave their families to go here and there where some one is needed who has considerable common sense above their shoulders and strength in their arms. Gettin' married is all right enough, if you can get a good husband, which they ain't at all sure of in those days. I was sayin' that when I was yonng, girls thought more of bein' good cooks and housekeepers than of fashion. At the same time it didn't seem to he the hight of a young man's ambition to stand at a street corner and hold up a post while the girls went by; nor to dwindle into an insignificant lightenin' bug in the evenin', and go 'round puffin' a pipe or cigar, to the disgust of every refined and sensible nose.

"Now, girls, remember what I say!" and Aunt Keziah shook her forefinger solmuly at the two bright faces before her. "Don't be in too great a hurry to get married! Go about your work. If you want a field of labor, you can find it anywhere. Learn some trade, if possible, 'twill come handy, you may be sure; 'specially such as tailorin' and dressmakin'. Riches, if you have them, have an uncomfortable trick of takin' to themselves wings and flyin' away. So it is best to be prepared to take care of yourselves, and perhaps yon'll have to help your friends, for, I'm sorry to say, the thin hands which keep starvation from loved ones figger more largely out of stories than in.

"Don't lay aside your common sense and good judgment when somebody asks you to marry them. Don't take any of these poor

characters that swear and smoke, or drink! There'll be trouble soon or late, for their heads are sure to be light, even if their purses and mustaches are heavy. Some girls have such a horror of beiu' called 'old maids' that they jnmp at a chance to change their names. I have had more than one sorrowful letter from good, nice girls who have done this, and saw their mistake when it was too late. Bein' 'unequally yoked together with unbelievers,' the yoke was heavy. Let girls who never was troubled with brains or principles, marry good-for-nothing men if they will; bnt let good, sensible, well brought-up girls beware! for if a man won't leave off a bad habit because they want them to before marriage, they're not apt to afterward."

"Above all things," said Mrs. Payson, who, having prepared supper for her guests, had come to announce it, was standing in the gathering darkness with her arms folded across the top of Miss Peck's high-backed chair—"Above all things be Christians, earnest and faithful. Let Christ have full posession of your hearts. I promise you there will be more sunshine in them in one day than in months without Him. Cling to Him as though all your happiness, here and hereafter, depended—as it surely does—upon your faith in Him. Cast all yonr care upon Him, for He careth for you. Take to Christ this question of marriage, as all other questions. For, if you desire it, will not the same God who led Abraham's servant to select Rebekah for Isaac's wife, lead you in your decision? Just read the story in Genesis, 24th chapter, some time. Do not make it the aim of your life to marry, but to prepare for the life to come. 'Do the duty nearest thee, and God will care for the rest.' "

Fashions for Spring, 1876.

Affections are cnt close, are worn by old and young, and are equally becoming to all. They are useful for everyday wear, for hill climbing and rock scaling. They come mostly in the old decided colors, and are worn long or short to suit the taste or couvenience of the wearer.

Honor is beginning to be considered a somewhat antiquate goods. Several large houses are selling out below cost, preparatory to going out of business, "as there is no profit in it," they say. Large stocks have accumulated on their hands, as they found few purchasers for even the finest quality. Some apparently heavy dealers have failed entirely, and closed up for want of capital.

Generosity was much worn at the holiday season. It is not an imported goods, but of home manufacture, and comes in all prices and grades.

Intellect is much sought after at certain shops, where it is supposed to be found. A "shoddy" article is often palmed off upon shoppers, a quality with a cotton back and a satin figure. But those really desirous of purchasing can always find a genuine article, and it is within the means of the poor.

Fraud, though not as popular as it was last year, is occasionally worn as a *neglige* by those retiring into bankruptcy; and at the reception of creditors by their two per cent. debtors.

There is another garment shown at the openings which promises to be as great a favorite this spring as ever. Its common name is love. It comes in suits, prices ranging from one hundred to many thousand dollars per suit. It is made to order when desired. Sometimes much profit is realized on the sales. Many who have purchased say that it can be turned and made over for another season. There is much counterfeit in the market. It requires a practiced eye to detect the false. Only the real will wear; the frail imitation soon gets shabby by dust and friction. I am told that some of our leading fashionables invest in the cheap material, and trimmed up nicely it is thought to look as well as the genuine.

Policy is one of the most popular over-garments of the season. It seems to be worn by all ages and classes. It is considered the "correct thing" for court, business or society. Some skill is required in wearing it, so that the lining, which is often of a different texture, shall not show. Those designed for ladies are often trimmed with a bewildering combination of puffs, bows, and folds; those for gentlemen are ornamented with red tape.

Orthodoxy is not so high or straight as in former seasons, nor buttoned so closely.

Heresy is very popular, especially when worn with white neckties.

Creeds are not so much imported as at one time, but are home made, which causes a great variety.—*Scribner for May.*

All About a Nose.—Joaquin Miller, in all his poems, goes almost as much on the size and shape of a human nose as he does on brown clover and bees. And he carries his nose ideas out in his prose work entitled "First Fam'lies of the Sierras," thus: "Small noses are a failure. Give me a man, or woman either, with a big nose—not a nose of flesh, not a loose, flabby nose, like a camel's lip, nor a thin, starved nose that the eyes have crowded out and forced into prominence, but a full, stroug, substantial nose that is willing and able to take the lead—one that asserts itself boldly between the eyes and reaches up towards the brows and has room enough to sit down there and be at home. Give me a man, or woman either, with a nose like that, and I will have a nose that will accomplish something. I grant you that such a nose may be a knave; but it is never a coward nor a fool—never!"

A Scene at the Next Earthquake.

Young Folks' Column.

Baby.

By F. E. H.

One by one the little children,
Tired with a day of play,
Gently, by their mother kneeling,
Bend, their evening prayer to say.

Silently the baby watches—
Standing quietly the while,
List'ning to the holy murmur;
Smiling his sweet baby smile.

Then the little white-robed figure,
Trotting to his mother's chair,
Kneeliug softly down beside her,
Waits to say *his* evening prayer.

Low the loving mother bendeth
Till her lips are on his hair,
Then the baby's heart repeateth
Through the mother's lips his prayer.
—*N. Y. Tribune.*

The Greatest Toothache Ever Known.

If any of you should have a toothache, my poor children, and it's very likely that you will, just look into the brook, or any other mirror, with your tear dimmed eyes, and notice how small is the little white tormentor that is causing so much pain. Then, by way of comfort, I want you to reflect how much worse it would be if this tiny white thing were an elephant's great tnsk, with toothache all through it.

Perhaps you will say that elephants can't have toothache? Then listen to the sad story of Chunee, the elephant of Exeter Change.

At Exeter Change, in the great city of London, there was, many years ago, a managerie in the second story of a building. Here the elephant, Chunee by name, a very quiet, well-trained beast, was confined in a cage, under which the floor had been strengthened to support his weight. Chunee never came out, but seemed very happy, for all that. Suddenly he became raving mad, and screamed and trnmpeted, and endeavored vigorously to tear away the iron bars of his cage.

Now, if he had succeeded in getting out upon the floor, Mr. Chunee would have immediately dropped through into an apothecary shop below. If he had fallen into the scales, his exact weight might have been acertained, after a fashion; but, in other respects, a mad elephant in a drug store would have been far worse than a bull in a china shop. If he had been sane, he might have had a nice time, eating the liquorice and cough lozengers and sugar coated pills and candy; but as he wasn't saue, the accident was not to be desired.

Well, Chunee grew more and more wild and dangerous, until, at last, the "beef-eaters," who are the keepers of the Tower of London, were called upon to destroy the poor beast. They discharged many balls from their old fashioned muskets into his body, but loss of blood seemed to increase his fury, and not lessen his strength. There were no rifle teams in those days, to reach his brain with a single shot, so a piece of artillery was actually brought up, and poor Chunee, obeying his keeper's voice, even in his rage, kneeled down, and was shot to death with a cannon ball.

Then the surgeons discovered that the elephant had been suffering from the greatest toothache ever known. His tusk, preserved in the warehouse of the East India company, shows this.

Now just think of what an awful thing six feet of toothache must have been, and pity poor Chunee!—"*Jack-in-the-Pulpit*," *St. Nicholas for May.*

Think for Yourself.—Do your own thinking. Yes, that is the idea. Think for yourself. It is well to listen to the expressed thoughts of others, and it is an agreeable pastime to give expression to your thoughts; but when alone, weigh what you have said. It is well to do this, for it will cure you of false notions, and eradicate unprofitable ideas, and in time make you better men and women. You will thus gain from surroundings, you will unwittingly transmit to the rising generation, and the result will be that you will do your share in the glorious work of elevating the humau family.

Children are children, as kittens are kittens. A sober, sensible old cat, that sits purring before the fire, does not trouble herself because her kitten is hurrying and dashing here and there, in a fever of excitement to catch its own tail. She sits still and purrs on. People should do the same with children. One of the difficulties of home education is the impossibility of making parents keep still; it is with them, out of affectiou, all watch and worry.

Good Health.

Dyspepsia from Eating Hot Bread.

Gen. Clingman tells some truths and offers snggestions about the causes and results of dyspepsia and indigestion, with special reference to hot, doughy bread, which will apply to all parts of the country. Read and heed: It has been said that the frying pan is an enemy of our people. There can be no donbt that it has slain thousands; bnt bad bread is the slayer of tens of thousands. While traveling in Europe for eight months, I saw nothing but cold bread, nor did I, while there, see anything that tended to indnce me to believe that anybody in Europe had ever eaten a piece of hot bread. I invariably, however, found the bread good, and the people I saw appeared healthy and robust. Some, as the English and Germans, were especially so. With respect to the United States, the condition of thiugs may be more strikingly and pointedly presented by reference to individual cases. Many ago years I stopped at a house of an acqnaintance, and on sceing him I said "You are not looking as well as nsual." "No," he replied, "I have the dyspepsia powerful bad." When dinner was ready there was an abundant supply of meats and well baked corn bread. There was also, however, something called biscnit, which was, in fact, rather warm dough, with mnch grease in it. I saw that my host ate this freely with his meats. I remarked that I did not wonder he had dyspepsia, for I could not live a month that way. I suggested that if he wonld eat well baked corn bread, or better still, light bread, he wonld uot suffer as he was doing. He answered vehemently that he would rather die than eat cold bread. I replied: "This is a free country, and you have a right to die in this mode if you choose, and I have no donbt that you will soon die." Then I referred to cases in which I had known people to die from such practices. My cool mode of discussing the question evidently made an impression on his wife. Next summer, on meeting him, I said: "You are looking much better." "Yes," he replied, bursting into a hearty laugh, "I followed your advice and took to eating light bread, and I am as well as I ever was in my life."

Breaking Down.—Men often have their hands full, are overcrowded with business and drive hurriedly along at it, but they may not be overworked. We cauuot always tell when we are overworked. A mau does not always kuow himself, no more than he knows the strain on the mainspring of his watch that will break it. But there comes a time when it breaks—a click, a snap, and the watch stops. Men break down in this way. They go on, day after day, the pressure being harder each successive day, until the vital force gives out, and the machine stops. It is a great pity that the indications of this state of things cannot be seen beforehand, and if seen, regarded. It is one of the last things that men will admit to themselves, much less to others. They flatter themselves that it is only a little weariness of the flesh, which will pass off with a few hours' rest, when in fact, every nerve, power and resource is exhausted, and the system is driven to work by sheer force of the will. When the oil on the shaft or in the oil-box is exhausted, every revolution of the wheel wears on the revolving part, and soon will ruin it. The same is true of the human body.—*American Manufacturer.*

Effect of the Seasons on the Body.—The curious fact has recently been pointed out by Dr. B. W. Richardson that the changes of the seasons have a potent physical influence upon the body. Some years ago, in a convict establishment in England, a number of men were confined amid surroundings (of clothing, room, food, etc.) practically the same for each individual. The medical superintendent of the jail undertook investigations, extended over some nine years, and duriug which over 4,000 individuals were weighed. It was found that during the months of winter the body wastes, the loss of weight varying in increasing ratio; that during snmmer the body gains, the gain varying in an increasing ratio; and that the changes from gain to loss and from loss to gain are abrupt, and take place, the first at the beginning of September, and the second at the beginning of April. This is shown in the following figures, indicating the ratio of loss or gain: Loss: January 0.14, February 0.24 March 0.95. Gain: April 0.03, May 0.01, June 0 52, July 0.08, August 0,70. Loss: September 0.21, October 0.10, November (exception) a slight gain, December 0.03.

Sweet oil for Poison.—A farmer writes to the *College Courant*: It is uow over 20 years since I heard that sweet oil would cure the bite of a rattlesnake, not knowing that it would cure other kinds of poison. Practice and experience have taught me that it will cure poison of any kind, both on man and beast. The patient must take a spoonful of it internally, and bathe the wound for a cure. To cure a horse, it takes eight times as much as for a man. One of the most extreme cases of snake bite occurred 11 years ago. It had 30 days' standing, and the patient had been given up by his physicians. I gave him a spoonful of the oil, which effected a cure. It will cure bloat in cattle caused by fresh clover. It will cure the stings of bees, spiders, or other insects, and persons who have been poisoned by a low running vine called ivy.

Domestic Economy.

Hints on Pastry Making.

The followiug hints on pastry making, by an old housekeeper, are worthy of study. The Americans are too much addicted to pastry, but since the taste is already formed, it remains only, in the preparation of such food, to make it as little injurious as possible by making it good.

The art of making paste requires a good memory, practice and dexterity; for it is principally from the method of mixing the various ingredients of which it is composed that paste acquires its good or bad qualities.

Before making paste wash the hands in hot water; touch the paste as little as possible, and roll it but little; the less the better. If paste be much wetted it will be tough.

A marble slab is better than a board to make paste on; both, together with the rolling pin, cutters and tins, should be kept very clean, as the least dust or hard paste left on either will spoil the whole.

The coolest part of the house and of the day should bo chosen for the process during warm weather.

Flour for the finest paste should be dried and sifted, as should pounded white sugar.

Butter should be added to paste in very small pieces, unless otherwise directed.

If fresh butter be not used, break salt butter into pieces, wash it well in spring water to cleanse it from salt, squeeze it carefully, and dry it upon a soft cloth. Fresh butter should also be well worked to get out the buttermilk.

After the butter has been pressed and worked with a wooden knife on the pasteboard, press it very lightly with a clean soft cloth, to absorb the moisture. If good fresh butter is used, it will require very little, if any, working.

Lard is sometimes used instead of butter, but the saving is of very trifling importance when it is considered that, although lard will make paste light, it will neither be of so good color or flavor as when made with butter.

Dripping, especially from beef, when very sweet and clean, is often used for kitchen pies, and is, in this instance, a good substitute for butter, lard, etc.

In hot weather the butter should be broken into pieces and put into spring water, or into ice; but on no account put the paste into ice, else the butter in it will harden it, and in baking, melt, and separate from the paste.

The same thing happens in winter, when the butter has not been sufficiently worked, and the paste is rather soft; for, though the season be favorable to the making of paste, care must be taken to work the butter sufficiently.

In winter, paste should be made very firm, because the butter is then so; in summer, the paste should be made soft, as the butter is then the same.

It is important to work up paste lightly and gradually into a uniform body, no strength nor pressure being used.

It is necessary to lightly flour both sides of paste when you roll it, in order to prevent its turning gray in baking; but, if much flour be sprinkled on it, the paste will not be clear.

Attention to the rolling out is most important to make light puff-paste; if it be too light, it may be rolled out once or twice more than directed, as the folding mainly causes it to rise high and even.

Be sure, *invariably*, to roll puff-paste *from you*. Those who are not practised in making puff-paste should work the butter in by breaking it into small pieces, and covering the paste rolled out; dredge it lightly with flour, fold over the sides and ends, roll it out very thin, add the remainder of the butter, and fold and roll as before.

To insure lightness, paste should be set in the oven as soon after it is made as possible; on this account, the paste should not be begun to be made until the oven is half heated, which sometimes occupies an hour. If paste be left 20 minutes or more before it is baked, it will become dull and heavy.

Paste should be light, without being greasy; and baked of a fine color, without being burnt; therefore, to insure good baking requires attention.

Puff-paste requires a brisk oven; a moderate one will best make pies and tarts, pudding and biscuits. Regulation of heat, according to circumstances, is the main point in baking.

If the oven be too hot, the paste, besides being burned, will not rise well; and if it be too slack, the paste will be soddened, not rise and want color. Raised pies require the quickest oven.

When fruit pies are baked in iron ovens, the syrup is apt to boil out of them; to prevent this, set a few thin bricks on the bottom of the oven before it is heated; but this will not be requisite if the oven has a stone bottom.

Tart tins, cake molds and dishes should be well buttered before baking; articles to be baked on sheets should be placed on buttered papor.

Apple Pies.—Take nice, tart apples—Spitzenbergs are best, although Pippins, Greenings, Russets, etc., are excellent. Slice them; fill the under crust an inch thick; sprinkle sugar over them; add a spoonful or two of water; cover with a thin crust, and bake three-fourths of an hour in a moderate oven.

Nice Cheap Pudding.—One quart of milk; four tablespoonfuls of flour; four eggs; six tablespoonfuls of sugar; nutmeg. Steam three-fourths of an hour.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$6.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, May 6, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—California Harvest Scene—Dr. Glenn's farm in Cotusa County; Dom Pedro in the PRESS office, 289. The Week; Our Rivals in Wheat Supply; The Influence of the Circus; The Orange Pest; The Capital City, 296. At the University; Preserving Meat; Center Draft Tongue for Reapers. 297. Patents and Inventions, 300.

ILUSTRATIONS.—A California Harvest Scene, 289. Center Draft Tongue for Reapers and Mowers, 297.

CORRESPONDENCE.—Agriculture about Reno; Notes on Rocklin and Antelope; Farmers, Write for Your Paper; Analysis of an Alkali Soil, 290. A Hundred Miles Around the Bay, 297.

BEES.—Swarming, 302.

PATRONS OF HUSBANDRY.—The Worthy Master at Santa Clara Grange; Harvest Feast at Danville; From the Granges; The Debris Question; Brotherly Feeling; The Grangers' Enterprise; Union Meeting at Yuba City; In Memoriam, 292.

AGRICULTURAL NOTES from various counties in California and Oregon, 293.

HOME CIRCLE.—The Centennial Cantata (Poetry); Farm House Chat; Woodside Papers—No. 5; Fashions for Spring, 1876; All About a Nose, 294-5.

YOUNG FOLKS' COLUMN.—Baby (Poetry); The Greatest Toothache Ever Known; Think for Yourself, 295.

GOOD HEALTH.—Dyspepsia from Eating Hot Bread; Breaking Down; Effect of the Seasons on the Body; Sweet Oil for Poison, 295.

DOMESTIC ECONOMY.—Hints on Pastry Making; Apple Pies; Nice Cheap Pudding, 295.

QUERIES AND REPLIES.—Talk About the Weather; Sheep and Sulphur; Lice and Cabbage, 296.

HORTICULTURE.—Leaf Curl on Peach Trees; Medlar and Loquat; The Medlar, 291.

THE VINEYARD.—Raisin Drying Floors, 291,

THE DAIRY.—Dairying in England; Setting Milk in Large Pans, 290-1.

USEFUL INFORMATION.—Keep Coal Under Cover, 298.

NEW ADVERTISEMENTS.

Agricultural Implements, Keller & Co., Sacramento, Cal.; Wood and Straw Burning Engines, Joseph Enright, San Jose, Cal.; Althouse Windmill, L. H. Woodin, Sacramento, Cal.; California Farmers' Mutual Fire Insurance Association, J. D. Blanchar, President, S. F.; Our New Pattern, O. Lawton & Co., S. F.; Extras, Linforth, Kellogg & Co, S. F.; Practical Books, A. L. Bancroft & Co., S. F.; International Hotel, H. C. Patridge, S. F.; P. of H. Jewels, James Murdock, Cincinnati, O.; Fruit Jars, Cohansey Glass M'fg Co., Philadelphia, Pa.; Champion Milk Pans, Nutting & Willard, Sacramento, Cal.

The Week.

The week has been a busy one in nearly all parts of the State. In the early gardens there has been a profitable activity in gathering, packing and shipping the vegetables which are now one by one reaching marketable form and consistency. Strawberries are fairly raining down upon us and the week brought cherries—these early birds catching $1 and $2 per pound for their fortunate producers. New potatoes are as plenty as marbles around a schoolhouse, and so many of them of marble size that the price has rolled down hill with them. In the hay fields there has been the hight of haying, and the promise are of an unusual yield in all parts, save some of the flooded lowlands where the farmers have been forced to let their stock anticipate the mowers on the meadows. In grain we are a week nearer the harvest and the work of preparation thickens. It is a needful work and should not be a day delayed, for the harvest will be peerless. In the interior towns, farmers come in bearing wisps of four feet wheat in one instance, and seven and a half feet oats in another. Already money, the equine propeller, is pouring into the interior in exchange for wool and early vegetables, and the beginning of the end of plenty and prosperity is chronicled. It is a good year.

Our Rivals in Wheat Supply.

It is not long since we had occasion to congratulate ourselves over the fact that we had outstripped Russia in the race for the rewards of supplying wheat for the English market. It is now apparent that we have other rivals in the wheat supply, which promise to push us closer than the Russian. In the telegraphed report from Mark Lane, which was printed in our market report last week, were these suggestive words:

"The shipments of wheat from Calcutta have formed a very marked feature in the trade this season, and the facility with which this class of grain can be sold shows that to the miller it must possess grinding qualities of no mean order. Add to this the fact that prices range a little over 40s. per quarter, and it must be patent that with the enormous resources of land and cheap labor in India, the prospect of selling English wheat at an average of 50s. per quarter is rendered rather dubious. Now that such facilities are offered for the transit of wheat from the East, the low class of grain from America and Russia is almost entirely neglected, and the influence thus brought to bear on the Bourse on prices is a matter for hopeful consideration, as the same quality of Calcutta wheat has been taken for the Continent."

This is the intimation which we receive that the Indian production of wheat is exerting a marked influence on the market. We are led to examine the question with a view of giving our readers a more definite idea of the exact proportions of this Indian trade in wheat. The figures which we have of the imports into the United Kingdom show that in 1869 there were *no* imports of wheat from India, and that in 1875 the imports of wheat amounted to 1,750,000 cental. Here is a growth of 175,000,000 pounds in six years. It is no wonder that such an amount is exerting an influence on prices. The figures afford even a greater contrast than we have made above. The returns for the first two months of last year, as compared with the same time this year, show as follows: January and February, 1875, 29,035 cental; January and February, 1876, 382,121 cental, an increase this year of 353,086 cental in the two months' imports of Indian wheat.

Such are the figures on this feature of the wheat supply. It is easy to see how this growth has been rendered possible. The Suez canal and the telegraph have proved the keys to unlock the granaries of British India to the English millers. The long voyage around the Cape of Good Hope was found to be fatal to the Indian wheat. The grain heated and became weevily. The slow process of ordering by mail made it a matter of six month's time to place an ordered supply upon the English market. Now, by Suez canal and telegraphic orders wheat can be delivered within four weeks. These are the trade advantages enjoyed by our rival in the Indian wheat fields.

In the matter of production it is doubtful whether we can compete at all with the exceedingly cheap labor which the Indian wheat grower can secure in unlimited quantity. It is reported now that the only fault which can be found with Indian wheat is a mixed quality. This need not be expected to exist long, for the realization of a good market, coupled with the fact that the English government will spare no effort to improve production in a land of her own possession, will insure the yield of standard wheat which will possess uniform grade. Thus it appears that our rival in India has many advantages.

Another land which may rival us in the European wheat markets is Egypt. In historic times Egypt was the granary of the world, and there are indications that she will again contribute largely to the food supply. Professor Davidson, of this city, who has lately returned from a tour of inspection in Egypt and India, calls attention to the extensive work which is now being prosecuted in developing the agricultural area of the country. He describes also the country known as the Soudan, which lies in the tropics, but has its climate tempered by its high altitude. The Soudan is over 2,000 miles long, by probably 300 or 400 miles wide. It includes Nubia, Abyssinia, Darfour, Uganda, etc. It has a continuous expanse of the richest and best watered land in the world, estimated two hundred millions of acres of two-yearly crop land, producing wheat, maize, barley, and other grains unknown to us, cotton, sugar, tobacco, wool, mohair, silks, coal, cabinet woods, ivory, peltries, ostrich feathers, etc. With labor ten cents a day, and the cost of transit proportionably low compared with our rates, and a year's clothing taken at less than $5 per man—women at half price doing a man's work—it is certain that Alexandria is about to become the greatest center of supplies for all Europe.

How California is to compete with a region possessing such conditions for production does not appear upon casual examination. Such cheap labor and cheap transportation our farmers cannot obtain. If such things as are imagined be realized in the future of this African region, we shall have to put our wheat land to some other use, but this is a matter for future action. It is only mentioned now that our readers may be informed of the possibilities.

The immediate danger to the profit of our wheat trade lies apparently in the competition with India. So far as the distance which the wheat has to compass from the field to the consumer, a ship canal across the isthmus of Panama would place us nearly on a footing with the Indian wheat growers in the race to the market. Capitalists are now drawing fresh inspiration for the proposed canal in Central America from the success of the Suez experiment, but it is impossible to fix any time when the project will be prosecuted. As the situation now stands, the warning from the English markets can only be of value to us as it may lead to study more closely the adaptation of soils to discover what change in crops can be profitably made. It may lead our agriculturists to the safer system of diversified farming, instead of linking their success wholly to the contingencies of a single crop. Thus it may result also in a system which is as wholesome to the soil as it is safe in the markets. In a multitude of products there is wisdom and safety and independence.

The Influence of the Circus.

The circus is abroad in the land. It goes from place to place, like a bird of prey, hovering just long enough to snatch money from hands which can ill afford to pay it, and yielding nothing in return but the memory of a grimace, of a contortion, of a ribald song or jest. In advance of its coming the barns and fences are covered with promises which are never made good; with representations which are never reproduced in action. Then comes the circus day. The little town is thronged for the moment. The saloons are swarming and cheap whisky flows in deadly, copious current. Then follows the performance, with its absolute void of a single jot or tittle of anything which can improve, elevate or humanize a man. The ribaldry of the ring within the tent, the herds of petty gamblers, pickpockets and swindlers around it—these are the charms of the circus. The performance over, again the saloons are gorged, and at night the highways resound with drunken echoes of the jibes and rioting of the clown. In the morning the circus has folded its tent and stolen away, carrying a box of coin which the community needed for better purposes, and leaving in exchange something which is worse than nothing.

Such, it seems to us, is the history of a circus in any place it visits. Of course we are not passing condemnation upon all those who see fit to patronize the show; we are only endeavoring to look in a cool way upon the circus as a whole and the main influences which it exerts. This influence can only be bad generally. Men do not need any aid to develop the evil propensities of their natures. They need no schools of vulgarity or intemperance. The need is rather for things which teach refinement, elevation, ennoblement of man. The circus is not such a teacher.

The circus is a pecuniary curse to a neighborhood. It draws very much money from those who are too poor to secure a single life comfort. It sucks the sustenance from the hungry. It robs families whose surplus earnings do not seem enough to buy a single good book or newspaper for the instruction and improvement of the children. It excites money from men who cannot pay their lawful debts. It is an ungrateful monster, returning evil for good—receiving value and returning that which it is an injury to possess.

No one will understand us as decrying amusements. Far from it. It is healthful, wise and happy to let tired minds and bodies relax and restore themselves in pleasant mirth and entertainment. Let the picnic fill the community with music, let the excursion stir the soul with new and interesting scenes, let the social gathering shed new light in the home, let the lecture instruct and the concert enliven, let all noble and elevating amusements flourish, but let the circus—well, let the circus pass.

The Orange Pest.

At a recent meeting of the Louisiana fruit growers the subject of orange culture was under discussion, and means of destroying the scale insect were proposed. This insect we conceive to be the same described by ex-Governor Downey in the last RURAL PRESS. At the Louisiana meeting Mr. S. F. Gard, who is described as the "well known orange grower" by a local journal, made a statement that "finding it necessary to destroy some wasps which were endangering the comfort of some of his workmen, he chose to do so by firing a load of powder from a gun into each nest. To his astonishment, the tree, which was badly infested with the scale insect and showing signs of its ravages, began to recover, and in a couple of weeks was restored to health and vigor. On examination, he found the insect entirely eradicated. Filled with astonishment, he repeated the experiment, and with equal success in every instance." This is an exceedingly easy remedy if it be as effective as Mr. Gard supposes. It is so easy that it is well worth trying, even if California scale insects prove too hardshelled to be killed by concussion—for concussion seems to be the active agent in Mr. Gard's treatment. We recommend that some of our afflicted try a few charges of powder. Even if it does not clear the tree, it may be worth its cost as a Centennial celebration.

ON FILE.—"Botanical Excursions," J. G. L.; "A Visit to the Petrified Forest," W. H.; "Farmers' Wives and Husbands," C. I. H. N.; "Dress Reform," N. E.; "Letters to Boys and Girls," J. E. J.; "Pescadero Grange," E. L. "Notes from Fresno county," W. A. S.

QUERIES AND REPLIES.

Talk About the Weather.

EDITORS PRESS:—Your article, "Farm House Chat," by "Mary Mountain," No. 14, April 1st, is not good news for a Minnesota man to read who intends to settle in California. Your winter just passed must have been disagreeable indeed in general. However, allow me to ask a question or two which I have not been able to answer, after reading Nordhoff and a great deal of other matter. (1.) Can a man with common sense maintain a fruit orchard after he has bought and paid for it? (2.) Can you have grass or turf in your orchard the year round, or must it be plowed often? (3.) Can you have grass or turf in the house-yard without the watering pot in your hand every day in summer? In the East we never plow orchards, or very seldom, and have nice grass in them all summer, and good fruit.—E. ECKERT, Winona, Minn.

Yes, it was disagreeable part of the time; but there were no storms of snow in which a man could lose himself between his back door and his barn. There were floods in some localities, but we can see our fences all the year round. It was rather wet, but who thinks of the rains when one looks abroad upon miles of waving grain and thick pasturage and blooming trees and shrubs, which are the result of the copious drenching. It was disagreeable for the moment, but it was the surety of our present abundance. We would not have it less.

(1.) Most assuredly, if he fortify his common sense with industry and skill enough to care for his trees and market his fruit.

(2.) Our orchards must be cultivated.

(3.) Yes, we think the watering pot every other day would be enough. Grass plots must be irrigated in most locations. As for green grass, we have any quantity of it, and it comes in the time when it can be best enjoyed. Our friend would find his eyes resting upon a green turf more months of the year in California than in Minnesota.

Sheep and Sulphur.

EDITORS PRESS:—I should like to know (1) how many sheep 1,000 acres of good grazing land, 400 tons of hay and 200 acres of stubble would keep the year round. (2.) Is hay as healthy for sheep as the wild feed? (3.) If hay is good and healthy for sheep is there any preference to be given between wheat or barley hay? (4.) We have on my ranch a fine white sulphur spring. My stock is very fond of the water. When we first had the sheep, five years ago, they had scab, foot-rot, and other diseases that sheep are subject to; but since that time they have had free access to the sulphur water, and for five years there has not been a single case of any disease whatever. My horses and cattle are likewise healthy. I have thought that on ranches where there were no sulphur springs a preparation might be made that would have the same beneficial effects on the stock.—MRS. M. E. FISKE, Knoxville, Napa Co., Cal.

(1.) Our querist's conditions are so indefinite that it is difficult to reply except in a most general way. Supposing the 1,000 acres to be good grazing land we should count one sheep to the acre and one sheep additional per acre for the hay, or 2,000 sheep for the ranch. The stubble might be counted to help support the natural increase of the flock during its season, and until it is seasonable to sell off the increase. This estimate is of course subject to many modifications, according to the strength of feed, soil, etc. (2.) The answer depends wholly upon what is meant by "hay" and what by "wild feed." (3.) Wheat hay is far preferable to barley. (4.) The beneficial effect of sulphur water on stock and on men has been often noticed. Where sulphur water is not accessible for stock a small feed of sulphur occasionally is the cheapest substitute and answers the purpose better and more cheaply, we think, than would an artificial preparation of sulphur water.

Lice on Cabbage.

EDITORS PRESS:—Take air-slacked lime and sprinkle your cabbage, tomatoes, pumpkins or melons the same as we sulphur grapevines, and bugs and lice will disappear. The time should be put on early in the morning.—DAVID SQUIRE, Napa City.

The Capital City.

During a recent visit to Sacramento it seemed more pleasant than usual to us in the capital city. Considerable improvement is going on, and business in most branches seemed prosperous and hopeful for the future. We visited the "Holly water works" machinery. "The plant" works well and is a powerful aid to the fire department. Some such system for protection against fire should be adopted in Oakland and other cities in our dry California climate.

At the capitol we visited the rooms of the State Superintendent of Public Instruction, which command a fine view of the capitol grounds, which are now in a pleasing condition. While our RURAL readers have, for the past months, missed the lively correspondence of "Jeanne C. Carr," we assure them that her mind and hands have not been idle in assisting the duties of Dr. Carr's office and the educational interests of the State.

By Mrs. Carr's thoughtfulness and kindness the few moments we had to spare in the State library were made the most of, and we were quickly convinced that of this great literary bonanza all Californians may well be proud; no reader should stop at Sacramento and fail to visit the capitol buildings, take a view of the "City of the Plains" from the dome, and spend hours (if not days) among the rich and rare volumes, stereoscopic views and fine illustrations handsomely arranged in the alcoves and galleries of the library.

THE public schools of this city held their annual picnic on Maydsy.

At the University.

On a bright day of last week we passed a few honrs at the State University, on a flying visit to Prof. W. B. Rising, professor of chemistry. With Prof. Rising we made a call npon Prof. Hilgard, with whose name our readers are familiar from his favors to the PRESS. We took a look through the items of agricultural work which Prof. Hilgard is prosecuting, and we were pleased to notice the spirit of intelligent activity which characterizes his efforts. Of courso, as all nnderstand, the late lamented Legislature put the departments of the Uuiversity on very short commons, and all enterprises are restricted, bnt there is apparent a commendable disposition to do as much as possible within the legitimate revennes of the University.

Soil Analysis.

In his laboratory Prof. Hilgard is just now doing actual work upon questions submitted to him by the farmers of the State. We printed not long ago an analysis of an alkali soil from Sherman island, fnrnished by one of our corrospondents, and this week we print a report upon another soil specimen from Los Angeles county. We regard this work of especial interest and value. In the absence of a complete survey of the State, from which could be learned the characteristics of the different soils, there is a way open by which the farmer may gain, at the State expense, many useful hints concerning the soil he is cultivating, and that is by applying at the agricultural department of the University.

Prof. Hilgard has had long experienoe in the analysis of soils and maintains its practical value. He does not advocate the practical value of an nltimate analysis, bnt claims, as we believe truly, that by determining the available plant food which exists in any soil, taking into accoun t the conditions of situation and mode of t.llage, there can be gained a knowledge of what can be profitably added to the soil, which subsequent practice will prove true and trustworthy. We are glad to know that our readers are taking steps to ascertain what use can be made of Univerity science in their operations.

In securing data for determining the physical characteristics of different soils, Prof. Hilgard employs an apparatns in which water is forced through the soil at different pressures. At first the moist minute partioles are driven over the top of the receptacle into a receiver, whence they can be taken for weighing. The pressure of water is then increased and the next lightest particles are forced over for weighing, and so on with different pressures until all the particles of soil are separated into their specific classes. The Professor has introduced a most valuable improvement to this apparatus, in the shape of a beater which churns the particles as the water is passing throngh them, preventing the current from carrying over any flocculent masses and oompelling each mechanical division of the sample to wait the pressure which is reqnisite to send over its class of particles. This apparatus accomplishes in a short time what wonld otherwise be a most laborious undertaking. We saw a specimeu of its work in the separation which had been made of the particles of the Los Angeles alkali soil of which an analysis is given elsewhere this week. At least a dozen divisions of the soil had been made in respect to the size of the particles composing it. Of course this definite knowledge of the physical natnre of a soil is invaluable in determining its physical properties, viz.: absorptive, adhesive, retentive and other powers.

Home Made Chemicals.

We were much interested in examining the laboratories to note that apparatus has lately been introduced for producing chemically pure acids and ammouia from the cheap commercial articles. Thus the chief materials for Profs. Rising's and Hilgard's laboratories are secured at but a fraction of the price demanded for pure chemicals by the manufacturers, and in addition to this saving of expense the chemical stndents gain a better insight into practical chemical manufacture than they could from the smaller distillations of the analytical laboratory.

The Propagating Department.

In the propagating department, which is under the immediate supervision of our contributor, Mr. John Ellis, the horticultnrist, we found evidence of very successful work. His plants have been propagated with great care and most successfully, as the green rows of scions testify. He has material enough not only to add greatly to the beanty of the gronnds, but also to make valuable tests of nsefnl plants under varions conditions; but the work in this usefnl department will be much restricted becanse of a laok of funds.

Dnring our visit we found the gentlemen of the agricultural department ready to give us all the information desired concerning the work they have in hand and expressing an earnest desire to do everything in their power to minister to the progress of agriculture in our State. We trnst that our readers will not hesitate to test the quality of the agricultural department when any point in their work requires or invites such light as scientific meu can cast upon it.

LARGE HEADER.—Henry Dewey and William Applegarth, of Plainsbnrg, Merced county, are bnilding a "header," which will cut a 28 feet swath. They have been using 22 feet headers. The 28 feet header will be regarded by many as considerable of a machine.

Preserving Meat.

How to carry meat long distances and still to maintain its sweetness, is a problem which has been widely investigated of late. We recently made mention of the fact that the export of fresh meat from America to England had been achieved, with snccess and profit. The English eaters prononnoe the flesh satisfactory. In connection with this snbject there have arisen practical suggestions oonoerning the preservation of meat, which may be nseful, even if one does not wish to send the meat to sea. Oftentimes our ranchers send to the butchers for their snpply of fresh meat. evеn thongh they have animals fit to slaughter, because they have not mouths enough to consume a whole carcass before it spoils.

To our readers thus circumstanced, it will be of value to know a simple way in which they can preserve the surplus amounts from home-slaughtering for future nse. A recent issue of the *British Trade Journal* relates at length the success which has been gained by the use of bi-sulphite of lime as a preservative. It can be used for the preservation of every description of animal food. To preserve a joint of meat, in sultry weather, with the thermometer at 90 deg., we have only to plnnge the meat into a solution of bi-sulphite of lime. To make the solution, it should be in the proportion of half a pint of bi-sulphite and a large spoonful of salt to each three pints of water. All that is necessary is to mix these ingredients thoroughly, and plunge in the meat for a few minutes, being careful that the meat is wetted all over. When thus treated the meat may be hung up with perfect assurance that it will be fresh and sweet at the end of a week. By dipping night and morning the meat may be kept good for a month. This, we conceive, will prove a valuable recipe to many of onr readers, both for the reason we have mentioned above, and because many live at a distance from butchers' supplies.

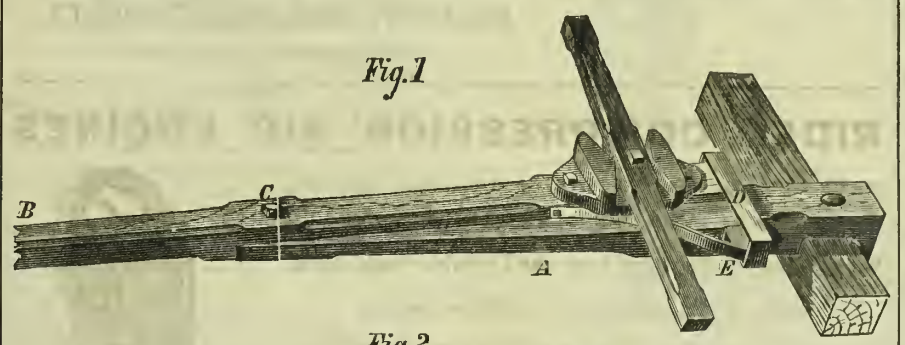
Center Draft Tongue for Reapers.

The accompanying engraving represents Fassig's center draft tongue for reapers and mowers. The arrangements of this tongne are such that while the horses are hitched near the machine as in tho old tongue, yet they pull on the center pivot which passes throngh the tongue near the front end, and the double-trees having a lateral sliding motion, can adapt themselves to either side of the main tongue, and thns equalize the draft in all conditions and positions of the machine.

A is the stationsry tongue and *B* the center draft tongue joined to it by the center pivot, *C*. The spring, *E*, keeps it in position when drawing directly ahead. The point of resistance being on the pinion near the front end of the tongue, keeps it perfectly still and renders it impossible to chafe the necks of the horses; and by the lateral motion of the double-trees they so adjust themselves as to greatly assist the horses in turning the machine at the oorners of the field. The side draft is controlled perfectly, and there is no jarring or jolting in the horses or machine. A fuller swath can be cut and the machine is turned one-half easier. Any farmer can see the advantages of this center draft tongne without having them pointed out to him. The manufactnrer is Jacob Kready, New Pittsburg, Wayne county, Ohio. He offers for sale the right for California.

DAIRY ASSOCIATION.—We are receiving many names to onr proposed call for a dairymeu's meeting to form an association, and trust all others who desire to take part in the organization will send us their signatnres at once, so that we may publish the tull call next week.

THE Centennial Commissioners have decided that the Centennial exhibitiou and grounds will not be opened on Sundays.



CENTER DRAFT TONGUE FOR REAPERS AND MOWERS.

A Hundred Miles Around the Bay.

EDITORS PRESS:—On the morning of April 21st, my better half and I started ont in private conveyance for Santa Clara. Our conrse lay through the town of San Leandro, formerly the conuty seat of Alameda. It is pleasantly situated six miles southeast of Oakland, with five or six hundred inhabitants, and a fertile conntry. On every side land is worth from two hundred to five hundred dollars per acre. San Lorenzo is the name of a beantiful stream fonr miles southeast of the town. Along the line of this creek is sitnsted the famous fruit growing region. The soil is a dark sandy loam, and we believe that for prodnctiveness it cannot be excelled on the face of the globe. The famous orchard and nnrsery of John Snelling is situated just above the crossing of the main road leading to Union City. In this orchard there are cherry trees as large as forest oaks. This is also the currant growing region of the State, and the indioations are that the crop will be immense. Land in this vicinity is worth from $300 to $500 per acre without improvements.

From San Lorenzo to Mount Eden, a distance of seven or eight miles, the country is one unbroken grain field, which is in splondid condition. Land about Mount Eden is worth from $150 to $250 per acre. This country is all exoellent land, aud in a fine state of cultivation, with the exoeption of a salt marsh abont a mile wide near Union City. Tnis city is about twenty-five miles—or half way from Oakland to San Jose. Union City was before San Leandro the county seat of Alameda conuty, but her glory has departed. The inhabitants has been torn down, and the college moved down to within one mile of San Jose. Th[illegible] frame of the female department of the [illegible] versity stands as a relio ot departed greatness, and in the bondoirs, where "dawning womanhood" formerly reposed, the rats now hold high carnival. The Catholic college is one of the wouders of the town, covering, as it does, several acres of land with its bnildings and improvements. It is wonderful how mnch nnity of action and tenacity of purpose has aocomplished for this people, and the end is not yet.

San Jose.

In the afternoon Mr. Wilcox and I took a turn around San Jose—three miles distant from Santa Clara, at the east end of the famous "Santa Clara avenne." The town of ten years ago is assuming the proportions of a commercial city, containing numerous fine streets and many stately bnildings. The country around about it is rich and prosperous, inclnding a fine prospect for splondid crops. There is manifestly a love of home amoug the people of Santa Clara county which does not exist everywhere to the same extent. You may observe this pride of country from the conversation of every one you meet. It is developed along every street and highway in the shape of shade and ornamental trees. Yon may take it the world over, and whenever you find a people who love their homes, they will love their country also, and thrift, enterprise and improvement follow as surely as the harvest follows seed time.

Up the Peninsula.

Bidding adieu to Mr. Wilcox and family on Sunday morning, the 23d, we set ont for a pleasant drive by the way of Redwood City and San Mateo, for San Francisco. The road is a splendid one. From Santa Clara the way—as on the east side of the bay—lies through fields of splendid grain. One feature of the San Mateo valley, which Alameda conuty has not, is the umbrageons oaks which may be counted by scores on almost every quarter section, and I noticed that the grain was, if anything, better nnder the trees than that which was not. The land about Redwood City is not so good as in Santa Clara valley. It is mnch more disposed to snffer from dronth. At

Belmont,

Where there are three or fonr indifferent honses, we inqnired for the residence of the "great late Wm. Ralston," and were informed that it was situated about half a mile from town, "just up the canon, 'ronnd the hill there." Being desirous of seeing "so remarkable a place, built by so remarkable a man," we drove jnst np the canon and around the hill, and there it was, sure enough. The mansion is sitnated on the right of the road as you ar proach, on the southeastern slope of a hill of no uncommon natnral beauty, but money has made it a yonng paradise. The mansion is very large, three stories high, and looks as though it might have been put up in sections, as circumstances reqnired. The style of architecture is not modern nor ancient. It is old fashioned narrow siding and 12-light windows. The gronnds are interspersed with a profusion of evergreen oaks; nnder and about them there is every conceivable form and variety of flowers and shrubs. There was conspicuonsly poated in several places this notice:

"Notice! No tresspassers allowed within this enclosure."

The whole "get np" of this place wonld indicate that this notice means: "If you haven't on a fine suit of clothes and a large balance in the Bank of California, yonr room will be more acceptable than yonr company." I have observed it to be almost nniversally the case, that whenever yon see a man disposed to put on a great deal of style and display, and spend large sums of money recklessly, the money invariably belongs to somebody else.

Bnt I am a long way from home, some thirty miles, and feeling that I have bored yonr readers too mnch already, please leave me here at Belmont, for it is a good place for meditation. Few places on earth are better suited to impress poor, weak human nature with the folly of attempting to sate a reckless ambition, which must inevitably lead to destruotion.

J. V. WEBSTER.

Fruit Vale, May 1st, 1876.

A "FAMILY GATHERING."—We donbt not our readers will be pleasod to hear of a little "family gathering" of the proprietors and attaohes of the PRESS and a few personal friends, which took placo in this city on Satnrday. An informal gathering was had at lunch time to bid God-speed to our senior editor, Mr. W. B. Ewer, on his journey to the Contonnial. After a wholesome lnnch and friendly oonverse, a pleasant presentation took place, in which Mr. Ewer received a very handsome rosewood cane, mounted with gold and quartz, with this inscription: "W. B. Ewer, A. M. 1876: From his Partners." The oane was a model of handsome work from the store of Dewey & Jordan, 433 Montgomery street, San Francisco. It bears npon its head a sample of our richest products and may express to onr Eastern friends new evidence of our inexhaustible resources. As Mr. Ewer carries it on his journey it will assure him of the kind feellug of those he left behind him. And when he wearies amid the busy display to which he is going, let it support him with its own strength and with a consciousness that those from whom it came to him are waiting to welcome his return to his beloved Western home.

Useful Information.

Keep Coal Under Cover.

That most of the true bituminous coals (English and American) are subject to spontaneous combustion when in bulk, and under favorable circumstances, is well known, and even when lying in large heaps, exposed to the atmosphere, there is certain waste and deterioration that takes place, attributed to a slow combustion. The waste of fuel, however, exposed to air, depends on its igniting temperature. Experiments by Greenamann, at Tarnowitz, in Germany, have proved conclusively that an exposure of bituminous coal in heaps to the action of the weather for a period varying from two weeks to a year results in a large percentage of loss. This loss is in the nature of a slow or incomplete combustion; it is greater and more rapid in large heaps than in small, and is also favored by the greater or less state of subdivision of the coal, large fragments losing proportionably less than smaller ones. The loss varies from five to 25 per cent. Varrentrapp also gives the following test: "A quantity of pulverized coal (bituminous) was placed in a tight vessel, through which a current of air could be drawn. The vessel and air were brought to a temperature of 280 deg. Fahr. and the air, after passing through the apparatus, was caused to bubble through certain chemical preparations which had the property of retaining and rendering visible carbonic acid. Under these circumstances the carbon of the coal was ultimately removed by the chemical solution of the air as carbonic acid, showing conclusively that a true combustion had taken place. This combustion is so complete that in three months nothing but ashes remain."

How to Clean a Metal Clock.—An English writer says: Dip a feather into common paraffine oil, such as is used for lamps, and touch up all the oily places of the clock, especially axles and holes; then let the clock stand a few hours, give more paraffine, and touch oftener if you think it is better for it. Afterward strew strong washing powder among the wheels, etc., and plunge the clock into a strong solution of the same in boiling water. Let it lie therein till the water gets cool enough to place your hands in, when with a toothbrush rubbed with soap wash out the dirt from the works. Afterword cleanse completely from all trace of soap and powder in plenty of warm water and the operation is complete.

Purifying Water with Alum.—Alum will only purify water from organic impurities, which it will precipitate in the same manner as it precipitates dissolved coloring matter in the manufacture of lakes from dye woods. One teaspoonful of pulverized alum in four gallons of water is sufficient. If the water contains such an amount of impurities that this quantity will not purify it it is unfit for drinking purposes.

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

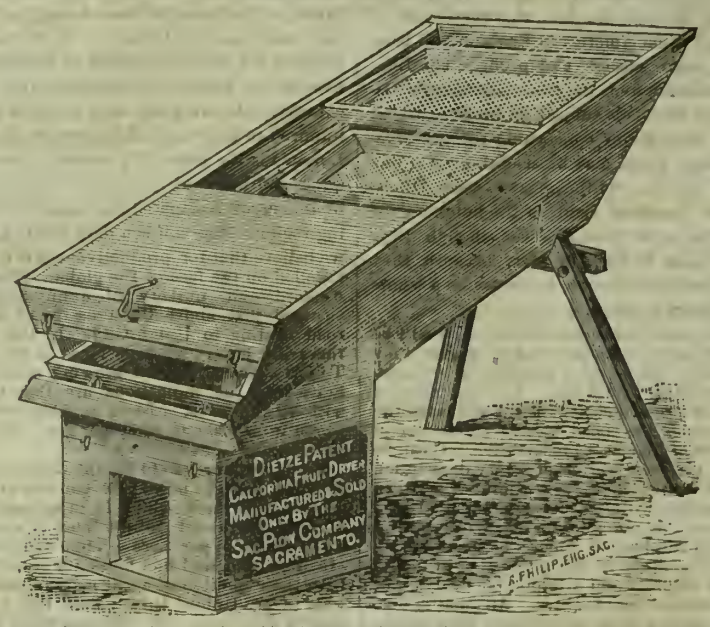
ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

CALIFORNIA FRUIT DRYER.

DIETZ PATENT.



Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple n construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,
Sacramento City, Cal.

RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

Not a Valve, Spring, Cam, Lever or Eccentric about them.

ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.

Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

Send for Circular and Price List, or call and see one in operation.

HUNTINGTON, HOPKINS & CO.,
Sole Agents for the Pacific Coast,
Junction of Bush & Market Sts., S. F.

FOR SALE.

NEW ZEALAND GRASS SEED
By HELLMANN BROS. & CO.,
Cor. Front and Jackson Streets. San Francisco.

LEVI STRAUSS & CO.,

Patent Riveted Clothing,
14 & 16 Battery St.,
San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

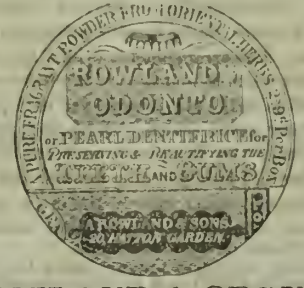
Patented May 12, 1873.
USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. cow-bp

H. K. CUMMINGS. 1858.
H. H. HALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,
ESTABLISHED 1858.
No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.



ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,
19 New Montgomery Street, S. F.
☞Grand Hotel Building.

The Mining and Scientific Press,

Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the Best Practical Mining and Mechanical Journal in America. $4 per annum, postage paid. Dewey & Co., San Francisco.

REMINGTON SEWING MACHINE.

Superior to all others, because of their simplicity of construction: the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gonge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel, S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

Live Stock Notices.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

R. S. THOMPSON,

IMPORTER AND BREEDER OF

PURE BERKSHIRE SWINE

NAPA, CAL.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, some fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

CHUFAS AND JAPAN PEAS.

The introduction of these crops throughout the South will enable us to keep our stock and fill our smokehouses as cheaply as it can be done at the West. The Chufa is planted in a ridge like potatoes, yields on common land 200 bushels per acre of the richest feed, unequalled for fattening hogs, poultry—and children. One acre will fatten more hogs than ten acres of the best corn, besides furnishing grazing all summer. For the truth of these claims we refer to U. S. Commissioner of Agriculture, Washington, or to any agricultural paper in the South. Price, by mail, postage paid, 20c a package, 40c a pint, 75c a quart; by express $4 a peck, $15 a bushel.

The Japan Pea fully established its merits several years ago, and is now in universal demand. It grows upright like a cotton stalk, is cultivated like corn, and yields from 150 to 300 bushels per acre on ordinary land. Stock of all kinds relish it and thrive highly on it without other feed. Also excellent for table use (after boiling for about a week). Price, by mail, postage paid, 15c a package, 30c a pint, 50c a quart; by express, $3 per pack, $10 per bushel. These seeds are so scarce and costly that we cannot make any discount to wholesale dealers or Grangers.

When Southern planters grow their own stock-feed and fatten their own hogs we shall hear no more of hard times and "middlemen," for this will put an end to both. If you fear to invest largely it will cost but a trifle to try these seeds, and unless your experience differs from all others you will be forever thankful for the trial. Address,

A. F. WHITE & CO.,
Nashville, Tenn.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier. Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

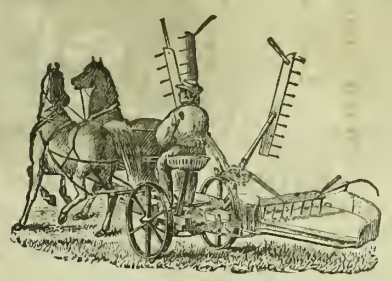
114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.



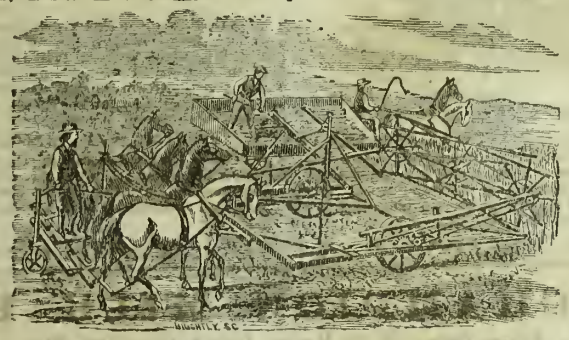
Buckeye Mower and Reaper.

The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merits. They will do better work and will outlast two of almost every other make of machine.

Farmers, BUY A BUCKEYE in preference to all others.

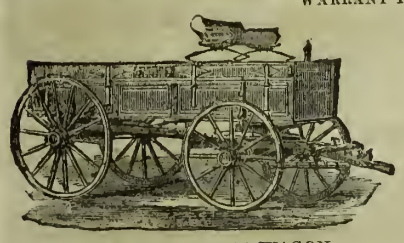
With Adjustable Reels. IRON WHEELS.



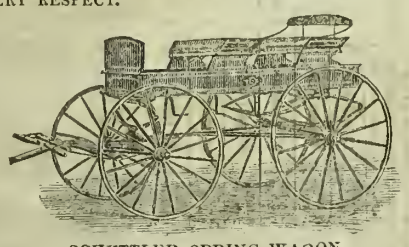
SHORT FRAMES. Springs to raise Cutter-bar.

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.



SCHUTTLER FARM WAGON.



SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

MARCUS C. HAWLEY & CO.,

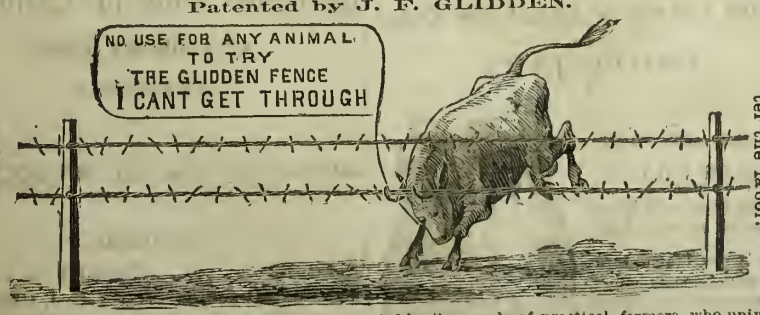
San Francisco and Sacramento, Sole Agents for the Pacific Coast.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

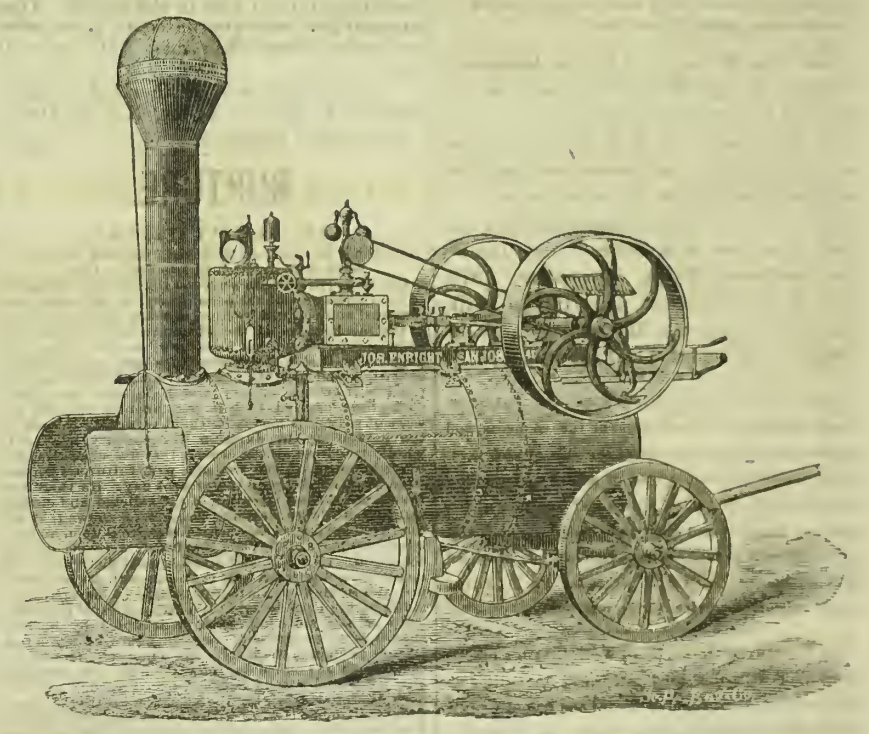
The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

ENRIGHT'S PATENT PORTABLE

WOOD AND STRAW BURNING ENGINES.



Patented July 20th and November 2d, 1875.

Burns Wood or Straw without change, and Coal by changing two plates. Took the Premium at the California State Fair, 1875, as the Best Straw Burner.

PIONEER BUILDER OF THE FIRST PORTABLE THRESHER ENGINE ON THE PACIFIC COAST, 1861.

PATENTEE AND BUILDER OF THE

BEST PORTABLE STRAW OR WOOD BURNING THRESHER ENGINES, 1876.

Send for Testimonials and Price to

JOSEPH ENRIGHT, San Jose, Cal.

SHERIFF'S OFFICE, SACRAMENTO, Sept. 21st, 1875.

MR. J. ENRIGHT—*Dear Sir*: The Straw Burning Engine I bought of you, and which was used in Yolo county, has given us perfect satisfaction. It is everything you represented. We have had no difficulty in generating all the steam required, and the amount of straw consumed can hardly be missed. We find it much safer, on account of fire, than a wood burner. Many persons, both threshers and farmers, have come to see it run, and all express themselves highly pleased. The opinion of all was, that it is just what we need, being safe and economical.

H. M. LARUE.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Ca

Dewey & Co. {224 Sansome St} Patent Agt's. | No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., May 2d, 1876.

FOR WEEK ENDING APRIL 18TH, 1876.

ROPE GRIPPING DEVICES FOR PROPELLING VEHICLES.—Asa E. Hovey, S. F., Cal.

HOSE COUPLINGS.—George W. Price, S. F., Cal.

TICKET HOLDERS.—William U. Bohm, S. F., Cal.

ORE FEEDERS.—Thomas A. Cochrane and Joshua Hendy, S. F., Cal.

GATE LATCHES.—Henry Jones, Shasta, Cal.

——"The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

A NEW AND DESIRABLE ARTICLE in crockery has been introduced into the trade, known as English Stone China. It is said to be as handsome as the French China, and has the additional recommendation of being only about one-third the cost. These goods can be found at O. Lawton & Co.'s, under Grand Hotel, S. F. who are agents for the Pacific Coast.

THE NEW WILLCOX & GIBBS Automatic Tension Silent Sewing Machine is the latest and most marvellous invention in sewing mechanism. It is the only sewing machine that can be used successfully without instruction or experience, and invariably does perfect and durable work. First premium at American and Franklin Institute Fairs, November, 1875. Send for circulars and price-list to Willcox & Gibbs Sewing Machine Co., E. B. Cutler, Gen. Agent, 111 Post street, S. F.

AMERICAN MANURES, OR FARMERS' AND PLANTERS' GUIDE.—Comprises a description of the elements and composition of plants and soils; the theory and practice of composting; the value of stable manure and waste products, etc. Also, a chemical analysis of the principal manufactured fertilizers—their assumed and real value—and a full expose of the frauds practised upon purchasers. By Wm. H. Bruckner, Ph. D., Phila. Sold at this office. Price, $1.75; post paid.

THE THRESHERS' GUIDE, by D. W. Hollihan, a practical operator with threshing machinery in California and other States. A book of useful and friendly hints to the grain growers, machine owners and threshing superintendents and workmen. Published at the RURAL PRESS office, in 1872. Price, $1; in limp cloth binding, 75 cents; postage paid.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

BOUND VOLUMES of the MINING AND SCIENTIFIC PRESS from Jan. 1st, 1864, are for sale at this office at $4 per volume, two volumes a year. Unbound at $3 per volume.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

INTERNATIONAL HOTEL,

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

McCormick's Mowers and Reapers.

☞FARMERS wanting to purchase Mowers or Reapers this season will serve their own interest by examining the McCormick Machines before purchasing. Every McCormick Machine sold is guaranteed to give satisfaction to the purchaser, if correctly set up, or purchase money returned.

McCormicks' character as the inventor of the Reaping Machine is national. Their experience in the manufacture of Mowing and Reaping Machines, and improving them, extends over the past thirty years. Their facilities for manufacturing are the most complete, and the capital invested in the business the largest of any manufacturers in their line in the world. This of itself is a safe guarantee to those who patronize them that they will be well treated.

For circulars and further information address P. Mohan, agent, No. 106 Davis treet, San Francisco.

RUPTURE.

IF RUPTURED

You should be Cured or Relieved, without Inconvenience or Restriction in Exercise or Diet.

Dr. Rowe, in order to arrive at the absolute certainty of the correctness of the peculiar course of treatment invented and adopted by him, devoted great attention to the mechanism of the structure involved in the course of hernia, so that he is now assured, by a large experience, that it is in accordance with the principles of science, and with the most universally acknowledged practice of artistic surgery, and he asserts with confidence thus inspired that it permanently relieves all cases of reducible hernia, without regard to the age of the patient or the duration of the injury, while it is wholly free from all the cruelty that has characterized the treatment of the malady with torturous trusses from the earliest age to the present day. He therefore invites the earnest attention of the afflicted and closest scrutiny of the profession. Experience shows that all tempered spring trusses necessarily press upon and often *disease* parts of the body that before were in a healthy condition. Lumbago and other equally distressing ailments are not unfrequently the outgrowth of such pressure, and in view of this fact it becomes a matter of decided consequence to avoid like calamities, if possible.

No person suffering with or troubled by hernia, should be without them. 1st—There are no tempered springs to confine the body. 2d—The pressure can be raised from one ounce to forty pounds. 3d—Pressure only where the bowels escape. 4th—Pressure up and back, therefore retaining the hernia at all times. 5th—This instrument is worn with perfect ease while riding horseback. 6th—Rupture retained and the pressure the same while in any position. 7th—Its extreme lightness and facility of adjustment give it preference over any other now known to be in use. The superiority of these instruments over the rigid iron hoops, which in former days were the only recourse of the ruptured, admits of no argument. Consultations and Examinations Free.

These Trusses sent to any part of the country by Express (Terms—C. O. D.) upon receipt of measure around hips, and statement whether single or double rupture.

ROWE ELASTIC TRUSS CO.,

609 Sacramento Street, near Montgomery,

Up Stairs,) SAN FRANCISCO.

DESIRABLE RANCH FOR SALE.

Containing 86 acres, every acre of which is the best o soil and in an excellent state of cultivation, and within two miles of Napa City. Twenty acres in bearing vineyard. An orchard of 250 bearing cherry trees, 100 peach, 60 prune and plum, 12 almond, 50 English walnut and Italian chesnut, and one-half acre in currants and blackberries. One pair of excellent farm horses, one three-year-old colt, farm wagon, spring wagon with two seats, and about 100 fowls; house of three rooms, hard finished, barn, chicken house, etc.; furniture, crockery and glassware. An excellent spring near the house. Any person looking for a home and a place that will pay, will find no more desirable place in California. Every implement needed on a ranch will be found on the place, even to an improved Buckeye reaper and mower with self-raker.

Inquire of D. S. TALLMAN, at the Post-Office, Napa or address H. W. HASKELL, Napa, Cal.

POND LILIES,

WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,

Pacific Forest Tree Nursery, Petaluma, Cal.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,

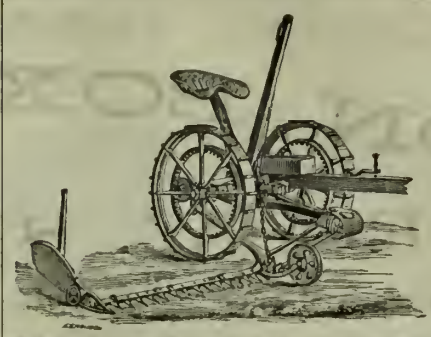
COR. JAPAN & TOWNSEND STREETS,

SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

CHOICE VOLUMES.—We have a full new set of *Scribner's Monthly*—ten volumes—well bound, for sale at this office. Price, $2 per volume.



WM. ANSON WOOD'S EAGLE MOWER.

RUSSELL PEERLESS MOWER.

WM. ANSON WOOD'S EAGLE MOWER,

Now acknowledged to be the Leading Mower on the Coast—From its durability and strength, being constructed of iron and steel, and from the rapidity of its motion, cutting all kinds of grass. It will work on uneven ground.

With Adjustible Reel

Iron Wheel.

Beware of Imitations.

ALSO,

HEADER DRAPERS

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

CASE'S SINGLE GEAR IRON WHEEL HEADERS,

WHICH WE WARRANT THE BEST IN THE MARKET.

A Full Supply of Extras for the above Machines Constantly on Hand.

FISH BROS.' FARM WAGON.

FISH BROS. & CO.'S

PACIFIC FARM,

SPRING AND HEADER WAGONS,

The best painted, the best proportioned, the best ironed, and the Best Wagon on Wheels We can sell a BETTER SPRING WAGON FOR LESS MONEY than any firm in California, comprising Two Spring "Specie Basis" and Platform Spring Delivery Wagons; Three and Four Spring Express Wagons, both with plain and Sarven's Best Patent Wheels.

JOS. ENRIGHT'S STRAW BURNING ENGINE.

It burns Straw with an artificial draft, and by means of a Patent Bing Grate, causing the straw to be retained at the grate until entirely consumed, and preventing the unburnt straw reaching the combustion chamber, thereby preventing all choking up of the tubes. Having a combustion chamber, (lined with cast iron staves for protection,) and by which a more intense heat is produced, also admitting a large amount of oxygen, thereby causing complete combustion.

LINFORTH, KELLOGG & CO., - - 3 and 5 Front street. S. F.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth, Capacity, Etc.

No	Space each set occupies in room in feet and inches.	Cap'y of each Pan in gal'ns, 4 pans in set.	Depth.
0	5 ft. 6 inches long 3" wide	12 gallons.	6 in.
1	6 ft. 10 inch's long 3" 10 " wide	18 gallons.	6 in.
2	7 ft. 8 inch's long 4" 2 " wide	25 gallons.	6 1-2 in.
3	8 ft. 7 inch's long 4" 8 " wide	35 gallons.	7 in.
4	9 ft. 8 inch's long 4" 11 " wide	45 gallons.	7 1-2 in.
5	9 ft. 11 in. long 5" 4 " wide	55 gallons.	8 in.

NUTTING & WILLARD, Sacramento, Cal.

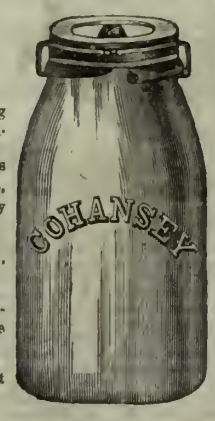
COHANSEY GLASS TOP

FRUIT JARS.

FRUIT

IN CONTACT WITH

GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Cal

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital. $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER
Directors:—Wm. Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, O. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 3d, 1876.

The city trads has experienced another dull week. The condition has been like that which has prsvailsd for the last three or four weeks. Indeed, April has earnsd the title of a dull month this ysar. Our export trade averaged a valus of $310,504 higher in January, Febrnary and March tben in April, and the receipts for dutiss were $51,657.33 less in April than in March. It cannot be counted that ths dnilness is a part of the "general depression" wbich affects the whole country. It is only the record of our quiet ssason. The bright prospsct of trade which is foreshadowed by the coming magnificsnt harvest can well bridge ns over any tsmporary stagnation.

The Wheat market has experienced another flat week. Transactious havs been even less than last week, and pricss are rsduced to meet the present feeling. Tbs shipmsnts of Wheat during April wsre 214,414 ctls, ths ligbtsst of any month during the fiscal ysar.

Ths course of the Liverpool quotations for Wbsat to the Produce Exchange during the days of last wsek has been as rscorded in the following table:

Range of Cable Prices of Wheat.

	Oal. Average.			Club.		
Thursday	9s	7d@9s	10d	9s	11d@10s	5d
Friday	9s	6d@9s	10d	9s	10d@10s	5d
Saturday	9s	6d@9s	10d	9s	10d@10s	5d
Monday	9s	6d@9s	10d	9s	10d@10s	5d
Tuesday	9s	7d@9s	11d	9s	10d@10s	5d
Wednesday	9s	7d@9s	11d	9s	10d@10s	5d

To-day's cable quotations to the Produce Exchange compare with same date in former ysars as follows:

	Average.			Club.		
1874	12s	7d@12s	10d	12s	11d@13s	2d
1875	9s	—@ 9s	3d	9s	2d@ 9s	7d
1876	9s	7d@ 9s	11d	9s	10d@10s	5d

The Foreign Market.

The telegraphed report of the foreign market, dated May 1st, from the *Mark Lane Express*, says:

"The activity caused by the Easter holidays is not yet over. Transactions are still limited to supplying immediate requirements. This, and the absence of everything like speculation, have tendsd to contract operations, ths supply keeping pace with the demand, and the stock diminishing slowly. The Continental demand continues, and has taken several cargoes which have arrived at calling ports, but it has not sbown itself to any extent in our local markets, except for Oats. Stocks in parts of Germany and France are reported short, but latterly purchases have been made by several grain markets from Russian and American ports, whence direct shipments are being made. Trade is inanimate. The fine weatber depresses tbe markst. In some instances holders have yielded slightly, but the dscline is scarcely quotable. Maize is lower under increased supplies. The French demand occurred very opportunely for sellers of Oats in the country markets. Flour is fairly steady, but the London trade dull. There has been no important change in any department during ths week. Things remain *in statu quo*."

Freights and Charters.

The Wheat tonnage market continues very quiet and thsre is little doing. The latest engagement is the Italian bark *Bianca Casanova*, 860 tons; Wbsat to Cork for orders, £2 10s; Continent, £2 15s. We continue to learn of new engagements effected for July and August loading, and others that are pending. A recent operation in this line is tbe taking of the ship *St. Lucie*, now on ths way to Manila, to load for Liverpool on return at £3 psr ton. A Liverpool corrsspondent of the New York *Shipping List* writes that paper that ths most decided appearance of improvement has been in rates from San Francisco for next season's crop. A good many vessels have been fixed at rates from 60@65s, Liverpool direct; and as high as 67s 6d has been paid for United Kingdom.

The disengaged tonnage now in this port comprises 22 vessels, aggregating 15,900 tons. According to Mr. Friedlander's tonnags list for May thsre is at present on the way and loading for this port, an aggregate of 236,428 tons. From New York we have 19 vessels, or 30,222 tons on ths way; and 13 vessels, or 19,168 tons loading. From Philadelphia, 4 vsssels on the way and loading; tonnage, 3,626. From Baltimore, 6, or 7,814 tons. From Boston, 7, or 8,693 tons. From Liverpool, 20 vessels, or 25,775 tons on the way; and 23, or 29,047 tons on berth. From Australia, 31 vessels, or 33,727 tons. From Hongkong, 12 vessels, or 11,315 tons; and from Manila, 8 vessels, or 7,672 tons. Thess are the principal ports, and it seems likely that we will have a good amount of tonnage for the next grain crop.

Domestic Produce.

The following table shows the bay receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Apr. 12.	Week Apr. 19.	Week Apr. 26.	Week May 3.
Flour, quartor sacks	32,220	25,134	21,026	34,703
Wheat, centals	27,009	89,159	42,941	22,406
Barley, centals	11,872	8,724	23,260	16,283
Beans, sacks	1,091	1,138	763	1,716
Corn, centals	1,497	541	.....	1,415
Oats, centals	4,615	1,171	4,910	207
Potatoes, sacks	10,500	5,862	11,209	6,828
Onions, sacks	1,414	163	801	130
Wool, bales	3,769	4,289	7,767	8,476
Hops, bales	149	15	90	19
Hay, bales	1,292	1,257	1,310	951

Bags—Bags are still more firmly held and we advance our rates to cover the extremes. Small lots are placed at the outside rate. Tbsre have been during the week considerable sales of large lots of Standard Wheat Bags at 12½, and smaller parcels at 13c. 13c seems to be the point which holders aim at. We are informed that one party holds 800,000 at this price.

Barley—Barley continuss to arrive in largo supply and the market is weak at reduced prices. We note sales: 800 ske good coast Feed, $1.12½, silver; 800 do good Bay Feed, $1.15, silver; 200 do coast Feed, $1.10, half silver; 300 sks choice coast Feed from store, $1.15, half silver; 150 aks dark coast Feed, $1.10; 250 sks fair Brewing, $1.20; 730 sks choice Brewing, $1.30 silver; 1,000 sks fair coast Feed, $1.10, half silver; 200 sks choice coast, $1.12½; 500 sks coast Feed, $1.10; 800 do at $1.12½; 600 choice bay Brewing, 1.27½, half silver; 500 sks fair coast Feed, $1.10; 1,000 do good do, at $1.15; 1,200 do coast Feed, $1.12½, 450 do bay Feed, $1.15, both all silver; 300 sks fair Brewing, $1.20 ₱ ctl; 300 do bay Fesd, $1.15; 800 do coast do, $1.12½; 1,260 do do, $1.10, silver.

Beans—Beans are unchanged. Prices will be found in our tables below.

Corn—Corn is generally unchanged. We note sales: 800 sks largs Yellow, $1.10, half silver; 350 sks Yellow, $1.15@1.17½; 200 sks fair Yellow, $1.15, silver; 200 do good do, $1.15 ₱ ctl, half silver; small sales of Yellow have been made within the range of $1.10@1.15 ₱ ctl.

Dairy Produce—Roll Butter is abundant and the market is weak, although prices are generally maintained. Large amounts are now being pecked by the city merchants. Cheess is plenty and the price is a little easier.

Fish—In the Fish market prices are without important change, except an advance in Salmon. Last week the stalls were overstocked, but a temporary scarcity this week has donbled ths retail price.

Fruit—The first consignment of Cherries of the season was received from G. F. Barker, of Solano county, on Saturday, and bronght $2 ₱ lb. They were of the Early Purple Guigne variety, and very fine. Another lot arrived to-day from Bryan's orchard, on the Sacramento river, and sold for $1 ₱ lb. Strawberries are coming forward freely, the arrivals averaging from 175 to 200 80-lb chests daily. The demand is, however, very active, and the whole is taken at high prices. Apples are scarce at $3@5 per box, delivered. The Los Angeles Orange crop has about all been received, and the market is now supplied chiefly with the Sicily and Tahiti varieties. The following interesting review of tb California Orange season is prspared by Mr. Rexford of the *Call:*

It is evident tbat ths California Orangss of the last crop have about all besn received. The last steamer from the South brought a very few, though a considerable sbipment of Lemons was received, which, with Limes, will continue to arrive for some weeks longer. The first consignment of the season was rsceived on ths 22d of November, since wbich time monthly arrivals of Oranges, Lemons and Limes have besn as follows:

	Oranges.	Lemons.	Limes.
November	.....	2,860	2,000
Dscember	111,920	41,000	46,000
January	621,900	48,750	1,000
February	876,200	82,250	59,000
March	892,900	106,250	15,000
April	267,850	67,600	1,000
May, to date	400	8,100	1,000
Totals	2,771 170	356,710	128,000
Crop of 1874-75	5,380,300	619,720	80,260
Crop of 1873-74	4,544,140	490,200	22,000
Crop of 1872-73	1,581,810	301,800	49,450
Crop of 1871-72	4,701,290	480,570	31,540

Ths total supply this season has come from Los Angeles county, if we except a few thousands from San Bernardino and a few hundreds from Dr. Strenizel's orchard, nsar Martinez, Contra Costa county. A fsw Oranges and Lemons are raised in Sonoma, Solano and other nortbern counties, but the total would not probably exceed 20,000, and all are consumed near ths points of production. Many groves are being planted in the northern part of ths State; but Los Angeles will for years continue to be the principal source of supply. It will be seen by the comparison that the last crop was a very short one, and corresponded to that of 1872-73. The prices realized were correspondingly bigb, even surpassing the figures for 1872-73. It will be observed that a very large crop followed the short one of 1872-73, and it is reasonable to expect a large one in 1876-77. Tbe demand is rapidly increasing and more than kesps pace with the production. We still import about 5,000,000 foreign Orangss per year, principally from Tahiti, so that notwitbstanding the thonsands of trees planted every year, there is no danger of overstocking the markst.

Hay—Strictly choice Wheat is scarce, and 140 bales brought $19.75. Other qualities sell down to $12 per ton. Ws nots sales: 46 tons volunteer Oat and Clover, $12.50; 34 tons fair Wbeat and Oat, $14; 35 tons fair volunteer at $14; 31 tons very poor, $9; 12 tons fair Tame Oat, $13.

Hops—Hops are unchanged. We note a sale of 45 bales at 13c. The Nsw York market, for the week ending April 21st is reviewsd by Emmett Wells as follows:

"We have to report a very quiet market, with the price ons cent lower on New York State Hops. There is very little to give hope of a better market, at least for some time to come, as shippsrs claim to be nearly through operating for ths season. The quality has now become so much reduced by tbe shipment of over 45,000 bales to Enrops of our choicest Hops, that there remains little or no stock suitabls for export; tbs refore, whatever business is done for sxport, from this time out, must be in seconds and low grades."

Oats—Oats are cheaper. The supply is plentiful and sales are only mads at concessions. We note sales of 50 ske choice Feed, $2.37½; 60 sks good Coast Feed at $2.25 per ctl, half silver; good Oregon feed Oats are offered at $2.25 per ctl.

Potatoes—Potatoes are becoming dsmoralized. Tbe report in the city is, that thero havo been at least 50,000 sks held back; and now, as new Potatoes are coming in almost as fast as they can be used, the price for old droops sevcrely. We note salos during tho week as follows: 200 sks fair Tomalos at $1.25; 100 do good do, $1.40; 225 do do, $1.50; 100 do Salt Lake, $1.75; 300 sks Petaluma, $1.50@1.90 per ctl; 200 do Tomalss, $1.95@2; 375 do Petaluma, $1.77½; 150 do do, $1.75; 200 sks fair Tomales at $1.25; 40 do fair Petaluma, $1.30; 50 do choice Tomales, $1.50; 180 do Salt Lake, $1.75, silver; 400 sks fair to choice Bodega and Tomales at $1.25@ $1.70 per ctl. The tendency of the markot to-day is downward, and it is doubtful if present prices can bo maintained.

Provisions—The market is dull for all kinds of Meat, and our quotations are generally lower. The retail trade is very slack. The abundance of early Fruits and Vegetables doubtless leads the city consumers away from Meats. In Smoked Meets there is a little better trade than last week.

Vegetables—Windsor Beans are again in market, and String Beans are looked for daily. Asparagus, Green Peas and Rhnbarb are plentiful and cheap. New Potatoes are coming in in largs quantities, and there are many of very poor quality. The price is very low, ranging from 1 to 3 csnts per pound. Green Pees are also abundant, and sell at 1½ to 3 csnts, 2½ end 3 cents being the pric for swost. Rhubarb has declined to 1 to 3 cents ₱ lb.

Wheat—Wbsat is only salsable at reduced figures and transections are very small. We nots sales of 500 sks Sbipping at $1.60; 3,500 Coast Wheet, $1.52½. In ths absence of leading sales our quotations elsewbsre priuted are only nominal. Tbe Flour market is depressed from excessive competition, and the city millers are doing but little. Extres are steady at $5.50@ 6 per bbl in jobbing lots.

Wool—The Wool market is not greatly chauged from last wsek. The receipts havo been very large. We note sales of 225,000 lbs. at 12@18c; 89,000 lbs. San Joaquin long and short, 14@17c; 17,000 lbs. Northern, 16@17c; 25,000 lbs. short, 14@15c; 26,000 lbs. San Joaquin, good short, 15c. The condition of the Eastern markets is reported by telsgraph as follows:

NEW YORK, April 30th.—Ths features of the Wool merket ars in every particular the same as at tho date of last report. Concession is ths rule of ths day, and no sales are sffected without. There has been a decline in Ohio of about 10 per cent., and new choice can be purchassd at 44@45 cents. California also sharcs ths weakness, and the aim of holders is to disposo of lots as soon as a reasonable offsr can be obtained. Texas is held obove the views of purchasers, and business is restricted in consequence. Pulled Wools are in largs supply, and thougb receipts are light and but little is expected, there is a disposition manifested to unload. Sales comprise 90,000 lbs. new spring California, 22@24c; 2 000 lbs. old do, 20c; 48,000 lbs. fall do, 13½@16c; 18,300 lbs. Western Texas, 18@20c; 5,000 lbs. black do, 18c; 1,000 lbs. Colorado, 20c; 1,000 lbs. XX and obove Ohio fleeces, 45c.

BOSTON, April 29th.—The Wool market continues dull. Prices are still settling, and holders find it impossible to place any considerable amonnt of Wool except at low and unsatisfactory rates. Arrivals of new California are small as yst. There have been sales of new spring, principally at 19@23c. Soms choice lots of new and old spring sold at 27@29c, but they are very extreme prices, and not ovsr 26@28c is likely to be realized for most desirable lots of spring. Sales of the week havs been 280,000 lbs., at 19@29c for spring, and 16@20c for fall. Fissces move slowly and sales have been at lower prices than any time in 10 years.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., May 3, 1876.

BEANS.

Bayo, ₱ ctl	4 00@4 50
Butter	2 00@2 50
Pea	1 75@2 12½
Pink	—@2 50
Sm'l white	1 85@2 00
Lima	2 37½@2 40

BROOM CORN.

Common, ₱ lb	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ lb	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Frssh Roll per lb	22½@ 27½
Point Reyss	— @ 30
Firkin	25 @ 27½
W'st'n Reserve	16 @ 20
New York	— @ —

CHEESE.

Obsese, Cal., lb	12 @ 15
do Old	10 @ 15
Eastsrn	15 @ 18

EGGS.

Cal. fresh ₱ doz	27½@ —
Ducks'	—@ 25
Oregon	22½@ 25
Eastern	20 @ 22½

FEED.

Bran, per ton	— — @20 00
Corn Meal	29 00 @30 00
Hay	13 00 @19 00
Middlings	25 00 @— —
Oil cake msal	— — @37 50
Straw, ₱ bale	50 @ 60

FLOUR.

Extra ₱ bbl	5 50 @6 00
Superfine	4 75 @5 00

FRESH MEAT.

Besf 1st quality lb	6½@ 7½
Ssoond do	3½@ 4
Third do	2 @ 3
Spring Lamb	6½@ 7
Mutton	4 @ 4½
Pork, undressed	8½@ 8¾
do, dressed	11½@ 12
Veal	5 @ 7
Milk Calves	7½@ 8½

GRAIN, ETC.

Barley, feed ctl	1 10 @ 1 15
do brewing	1 22½@ 1 27½
Obevalier	1 25 @ 1 45
Corn, White	1 10 @ 1 17½
do Yellow	1 10 @ 1 15
Oats	2 00 @ 2 50
Milling	— — @ 2 75
Rye	1 75 @ 1 80
Wheat shipping	1 60 @1 65
do milling	1 70 @1 75

HIDES.

Hides, dry	13 @ 15
do wet salted	6 @ 6¾

HONEY, ETC.

Besswax, per lb	25 @ 27½
Honey in comb	12½@ 15
do Strained	8 @ 13

HOPS.

New crop	10 @ 13

NUTS—Jobbing.

Alm'de b'rd sh'l lb	8 @ 10
do, soft sh'l	16 @ 18
Brazil do	14 @ 16
Cal. Walnuts	7 @ 11
Chile Walnuts	11 @ 12½
Peanuts per lb	9 @ 10
Filberts	15 @ 16
Pecanuts	17 @ 18

ONIONS.

Union City ctl	2 75 @ 3 00
Stockton	2 75 @ 3 00

POTATOES.

Petaloma, ₱ ctl	1 37½@ 1 65
Salt Lake	1 50 @ 1 65
Humboldt	1 37½@ 1 65
Early Ross	2 50 @— —
Sweet	— @— —
New, lb	1 @ 3

POULTRY & GAME.

Hens, per dz	9 00 @10 00
Roosters	— @11 00
Broilers	6 00 @8 00
Ducks, tame, dz	8 00 @9 00
do Mallard	— @5 00
do Canvass	— @5 00
Geese, per pair	2 00 @— —
Wild Gray dz	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, lb	23 @ 24
do Dressed	24 @ 27
Quail, per doz	— @ —
Snipe, Eng., doz	2 00@2 50
Doves, per dozen	50 @ 75
Rabbits	1 00 @1 50
Hare, per doz	1 50 @2 00

PROVISIONS.

Cel. Bacon, L't, lb	16½@ 17
do Medium	16 @ 16½
do Heavy	— @ 15½
Lard	15 @ 17½
Cal. Smoksd Bsef	9 @ 10
Eastern do	— @ 12½
East'rn Sbould's	— @ 10
Hams, Cal	14 @ 14½
do Armour	15½@ 16
do Worster's	16 @ 16½
do Dupee's	16 @ 16½
do Davis Bros'	16 @ 16½

SEEDS.

Alfalfa, Chile lb	8 @ 10
do California	11 @ 12
Canary	18 @ 20
Clover Red	— @ 25
do White	50 @ 55
Cotton	6 @ 10
Flaxsed	— @ 3¼
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, White	3 @ 3½
do. Brown	3 @ 3½
Rape	7 @ 9
Ky. Blue Grass	33 @ —
do 2d quality	29 @ —
do 3d quality	— @ —
Sweet V Grass	— @ 75
Orchard do	30 @ 38
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	10 @ 13

TALLOW.

Crude, ₱ lb	7 @ 7½
Refined	9 @ 10

WOOL, ETC.

SPRING—

Seedy, ₱ lb	11 @ 12½
Choice long frse	17 @ 18
do short	13 @ 16½
Burry	10 @ 12½
Oregon	— @ —

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., May 3, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	— —@— —
Tahiti, do	30 00@35 00
Cal. do	30 00@80 00
Limes, Mexican, ₱ M	10 00@— —
Malaga Lemons, ₱ bx	— —@— —
Cal. ₱ 100	2 00@ 3 00
do Sicily ₱ b'x	9 00@— —
Bananas, ₱ bnch	2 50@ 4 00
Cocoanuts, ₱ 100	6 00 @ 7 00
Pineapples, ₱ dz	6 00 @ —
Apples, ₱ box	1 87½@ —
do choice	2 00 @4 00
Blackberries	— @ —
Figs	— @ —
Huckleberries	— @ —
Strawber's ₱ lb	12 @ 15
Pomgranates	— @ —
Raspberries	— @ —
Currants, ₱ cb	— @ —
Quinces ₱ bx	— @ —
Cranberries ₱ bbl	13 00@14 00
Peaches, ₱ bx	— @ —
Pears, ₱ bx	1 75 @3 00
do Choice	— @ —
Crab apples, ₱ bx	— @ —

DRIED FRUIT.

Apples, ₱ lb	9 @12½
Pears, ₱ lb	8 @13
Peaches, ₱ lb	12 @12½
Apricots, ₱ lb	14 @15
Plums, ₱ lb	5 @ 6
Pitted, do ₱ lb	17 @22
Raisins, imported	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₱ lb	5 @10
White, do	12½@15
Prunes	12½ @17
Citron	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Asparagus ₱ box	50@1 00
Beets ₱ ctl	— @ 75
Cabbage, ₱ 100 lbs	87 @1 12½
Carrots, per ton	12 50@15 00
Cauliflower, doz	50@1 00
Celery, doz	50@1 50
Garlic, ₱ lb	— @ 5
Green Peas ₱ lb	1½@ 3
Green Corn ₱ doz	— @—
Sqsh'rSquash ₱ box	— @—
Marro'fat Sqsh, tn	20 00@25 00
Artichokes, ₱ doz	— @—
String Beans, ₱ lb	— @—
Lima Beans	— @—
Parsnips	— @—
Shell Beans	— @—
Peppers, green, bx	— @—
Okra	— @—
Cucumbers, ₱ doz	75@1 25
Tomatoes, box	—@—
Egg Plant, bx	— @—
Rhubarb	1@ 3
Lettuce	—@—
Turnips, pr ctl	75@1 00

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., May 3, 1

BAGS.

Eng. Stand Wbt	12½@13
Nevills & Co's—	
Hand Sewsd	12½@13
21x36	— @—
24x40	— @—
Machine do 24x40	13 @14
" " 23x40	12½@13
" " 22x40	11½@12½
" " 22x36	11½@12½
Flour Sacks ½s	9½@11
" " ¼s	6¼@ 7
" " ⅛s	4½@ 5
Hessian 60-in	12¼@14½
do 45-in	9½@10
do 40-in	8 @ 8½
Wool Sacks, 3½ lbs	45 @50
do 4"	50 @52½
Stand. Gunnias	— @16
single seam do	— @—
Bean Bags	7¼@ 8

CANNED GOODS.

Asst'd Ple Fruits in 2½ lb cans	2 75 @ 3 60
do Table do	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl	— @ 3 50
Sardines, qr box	65 @ 1 90
do hf boxes	3 00 @— —

COAL—Jobbing.

Australian, ₱ ton	— @10 50
Coos Bay	8 00 @10 00
Bellingham Bay	— @ 8 50
Seattle	9 25 @10 50
Cumberl'd	16 @— 18
Mt. Diablo	6 25 @8 25
Lehigh	— @22 00
Liverpool	10 00 @11 00
West Hartley	— @14 00
Scotch	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl	10 50 @12 00
Charcoal, ₱ sk	75 @ —
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica psr lb	22½@ —
Guatemala	— @ 22½
Java	— @ 30
Manilla	— @ 21½
Ground in cs	25 @ —
Chicory	27 @ —

FISH.

Sac. Dry Cod, new	4 @ 4½
cases	6 @ 7
do boneless	8 @ 10
Eastern Cod	7½@ 8
Salmon in bbls	7 00 @8 00
do ½ bbls	3 75 @4 00
do 2lb cans	2 25 @2 40
do 1lb cans	1 25 @1 60
do Col. R. ½b	5 00 @5 50
Pick. Cod, bbls	2 00 @ —
do ½ bbls	1 00 @ —
Mack'l, No. 1, ⅓ bls	12 50@13 00
" Extra	— @12 00
" in kits	2 @2 75
" Ex mess	4 00 @4 50
" Ex mess, ⅓ bs	—@12 00
Pic'd Hsrr'g, hf bx	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25
Cement, Roscndale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Laod Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Pulu	@ 7½

NAILS.

Assorted size, keg	3 75 @4 00

OILS.

Pacific Glne Co	
Neat F't No. 1	1 00 @ 90
Pure	— @ —
Castor Oil, N. O.	— @1 15
Baker's A A	— @1 15
Cocoannt	52 @ 55
Olive Plagniol	5 50 @5 75
do Possel	4 75 @5 00
Palm lb	9 @ —
Linseed, raw	— @ 70
do boiled	— @ 75
Cbina nut in cs	65 @ 67½
Sperm, crude	1 60 @1 65
do bleached	1 80 @2 25
Ocast Whales	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Olaophine	— @ 28
Devoe's Bril't	25 @ 27
Long Island	— @ 25
Eraka	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosone	23 @ 25
Olive	— @3 50
Downer Karose'e	— @ 37½
Elaine	37½@ —
Gas Light Oil	23 @ 25

PAINTS.

Pure White Lead	9¼ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochra	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal. White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60

RICE.

China No. 1	5 00 @ —
Hawaiian, ₱ lb	7½@ 7¾
Carolina, ₱ lb	10 @ —

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	8 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	22 50@25 00

SOAP.

Castile ₱ lb	10 @ 11½
Common brands	4½@ 6
Fancy do	7 @ 9

CANDLES.

Grant's	16½@ 17
Mitchell's	20 @ 22

SPICES.

Cloves ₱ lb	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmegs	95 @ 95½
Whole Pepper	14½@ 15½
Pimento	16 @ 17
Gr'nd Allsp'rds	@1 12½
do Cassia do	@1 50
do Cloves do	@1 50
do Mustard do	@1 20
do Ginger do	@1 00
do Pepper do	@1 00
do Mace do	@2 00
Bowen's Pure Ground ₱ lb	— @ 50

SUGAR, ETC.

Cal. Cube per lb	— @ 12
Circle A crushed	— @ 12
Powdered	— @ 12¼
Fine crushed	— @ 12
Granulated	— @ 11½
Golden C	— @ 10½
Hawaiian	10 @ 11
Cal. Syrupin kgs	— @ 70
Hawaiian Molasses	25 @ 27½

TEA.

Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	@1 00
Gunpo'der, Cant	75 @1 00
do Pingsuey	80 @1 00
do Moyune	65 @1 25
Yng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½&1 lb paper	30 @ 55

TURPENTINE.

Eastern	51½@55

S. F. RETAIL MARKET RATES.

WEDNESDAY M., May 3, 1876.

POULTRY, GAME.

Chickens	87 @1 25
Eggs, Hens	35 @ —
do Ducks'	— @ 30
Turkeys, ₱ lb	30 @ —
Ducks, each	1 00 @1 25
Geese, wild, pair	@ —
Tame, ₱ pair	4 00 @5 00
Snipe, ₱ doz	— @ —
do English	— @3 00
Quail, per dozeni	— @ —
Prairis Ch'k s, pr	— @ —
Hares, each	25 @ 35
Rabbits, each	25 @ 37
Squirrels do	10 @ 15
Hams, Cal. ₱ lb	18 @ 20

FISH, MEATS, ETC.

Flounder, ₱ lb	12 @ 15
Salmon, ₱ lb	— @ 15
Smoked	— @ 10
Cod Fisb, lb	12 @ 15
Lake Big. Tront	— @ 35
Besf, tend, ₱ lb	20 @ 25
Corned, ₱ lb	8 @ 10
Smoked, ₱ lb	— @ 15
Porterl'ouse St'k	20 @ 25
Sirloins do	15 @ 20
Round do	10 @ 12
Pork, rib, etc., lb	12½ @ 15
Chops, do, ₱ lb	15 @ 20
Veal, ₱ lb	12½@ 15
Cutlet, do	20 @ 25
Mutton-chops, lb	6 @ 9
Leg Mutton, ₱ lb	10 @ 15
Lamb, ₱ lb	12 @ 15
Antelope	15 @ 20
Tongues, besf	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, lb	12½@ —
Bacon, Cal., ₱ lb	18 @ 20

FRUITS, VEGETABLES.

Apples, pr lb	10 @ 15
Pears, per lb	— @ —
Apricots, lb	— @ —
Peaches, lb	— @ —
Plums	— @ —
Pine Apples, each	75 @1 00
Grapes	@ —
Bananas, ₱ doz	75 @1 00
Muskmelons	— @ —
Watermelons	— @ —
Blackberries	— @ —
Cal. Walnuts, lb	— @ 20
Cranbar'es, Org., do Eastern qt	— @ 25
Huckleberries	— @ —
Strawberries, lb	30 @ 35
Raspberries, lb	— @ —
Gooseberries	— @ —
Currants	— @ —
Cherries, ₱ lb	— @ —
Neotarines	— @ —
Pomegranates	— @ —
Oranges, ₱ doz	50 @1 25
Lemons	75 @1 00
Limes, per doz	— @ 25
Figs, dried Cal	12½@ 15
Figs, Smyrna, lb	25 @ 35
Asparagus, lb	5 @ 8
Artichokes, doz	50 @ 75
do Jerusalem	— @ 8
Beets, ₱ doz	20 @ 25
Potatoes, ₱ lb	2 @ 3
Potatoes, swost	— @ 8
Broccoli, each	10 @ 15
Cauliflower	10 @ 15
Green Peas ₱ lb	4 @ 8
Cabbage, per hd	15 @ 20
Oyster Plant, bn	— @ 12½
Carrots, ₱ doz	— @ 25
Celery, ₱ dz	75 @1 00
Cress, ₱ doz bun	20 @ 25
Onions	4 @ 5
Turnips, ₱ doz bunches	— @ 25
Mushrooms, ₱ lb	25 @ 35
Horse radish, ₱ lb	15 @ 25
Okra, dried, ₱ lb	40 @ 50
Pumpkins, ₱ lb	5 @ 6
Parsnips, doz	— @ 25
Parsley	12½@ —
Pickles, fresh ₱ lb	— @ —
Radishes,

Bees.

Swarming.

EDITORS PRESS:—Will you please be kind enough to tell an amateur the best way to save the swarms of bees. It cannot be possible that the apiarists have the same trouble that I have had the last few days trying to save a swarm; beating drums, blowing horns and ringing a bell, and sprinkling them with water, trying to get them to settle, and then put them in a hive to have them swarm again. I bought six swarms last year, lost two, got no young swarms and am now about to lose all the young swarms this year. Also please tell me the best work on bees. I do not known what we country people would do if it was not for your valuable paper. W. W.

Santa Ross.

The best books on bees are "Quinby's Bee Keeping," price $1.50, and Langstroth "On the Honey Bee," price $2. A. Roman & Co., and doubtless our other booksellers, will send the books post paid on receipt of price.

Will some of our bee keeping readers tell our querist what is best to do under the circumstances described above? In a general way we can say that one of the greatest triumphs reached by modern bee keepers is success in artificial swarming, by which the old drum beating and bell ringing practice is done away. An article on artificial swarming can be found in the RURAL of April 1st, page 222.

Seedsmen.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Completo Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

***My "Gnide to the Vegetable and Flower Garden' will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 45 Cal. Market S.F

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petalnma, Sonoma Co., Cal

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The nndersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

DANA B. CLARK'S

Tropical, Semi-Tropical and Temperate Climate Nurseries.

Especial attention paid to the introduction of new varieties of Fruit and Ornamental Trees, Shrubs and Plants. The LOQUAT BANANA and GUAVA is being propagated very extensively. THE BEST STOCK OF ORANGES AND LEMONS ON THE COAST. Every plant is raised in the open air. Not a hot or glass house in the Nursery. No extra charge for packing and delivering at steamer or express.

DANA B. CLARK, Santa Barbara, Cal.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS & CO., Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petalnma, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Agricultural Articles.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

THE

Improved Eagle Hay Press

CHEAP, STRONG, ECONOMICAL, POWERFUL AND RAPID.

THE KIMBALL MANUFACTURING CO.,

Owners of the Patent, and Sole Manufacturers on the Pacific Coast, make

Cars, Carriages and Agricultural Implements,

Cor. Fourth and Bryant streets, S. F.

Pressing hay in bales in a compact and easily managed shape has become one of the features in the industry of California farming.

The large sales the past season, and the increasing demand of the present, gives proof of the advancement of the Improved Eagle Hay Press over all competitors on this Coast.

Three men, with a team, can bale from ten to fifteen tons per day, each bale weighing from 250 to 350 lbs., according to the quality of the hay. It uses less rope than any other press of its size. Size of bale box, 49 inches long, 26 inches wide and 27 inches high.

These presses are made in San Francisco, by the KIMBALL CAR AND CARRIAGE MANUFACTURING CO. Also manufacturers of agricultural implements, California grading scraper, farming tools, carts, plows, wheelbarrows, portable railway track and cars, railway and street cars, omnibusses, Taylor's patent tubular iron and wood harrows, with driver's seat attached, Harris' patent tubular iron square or Scotch harrow, steam fire engines, Hayes' patent fire escape, Southwick's patent turbine windmill, quartz and farm wagons, trucks, road scrapers, all styles and grades of harness; carriages trimmed to order; manufacturers and agents of Tulloch's automatic ore feeder; machinery made and repaired; fine carriages and all styles of buggies.

Straw-Burning Attachment.

KING'S PATENT.

THE ONLY SUCCESSFUL BURNER YET INTRODUCED.

Having secured the exclusive right to manufacture and attach to engines, J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

The Attachment

Can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced County.

All orders addressed to J. R. KING, Patentee, in care of the Globe Iron Works, or H. C. SHAW PLOW CO., Stockton, will receive prompt attention.

☞Send for Circulars.

JOHN CAINE,

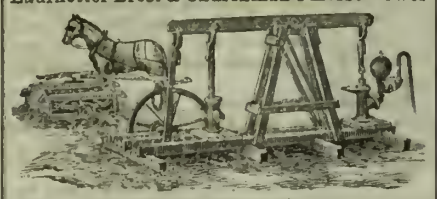
Proprietor Globe Iron Works.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



(PATENTED FEBRUARY 13th, 1872.)

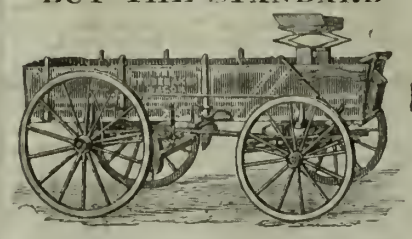
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. E. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Silky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL.,

Will receive Prompt Attention.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,

Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,

Livermore, Alameda County, Cal.

OAKLAND Spring Balance Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

WANTED.

A situation wanted as Engineer in the country, by a person who has had experience in running Portable Engines, Gang Plows, Etc. Reference given.

Address, ALBERT BAILEY,

Oakland, Cal.

FRANK BROS. & CO.,

349 Market Street, - - - - - - - San Francisco, Cal.

WALTER A. WOOD'S

IMPROVED IRON MOWER

23,507 were made and sold last year. Their immense sale and unprecedented success IN PRACTICAL FIELD WORK, fully establishes their superiority over all other machines for SIMPLICITY and PERFECTION of CONSTRUCTION.

WALTER A. WOOD'S

Chain Rake and Sweep Rake Reaper.

WALTER A. WOOD'S

Harvester and Self-Binder.

The Greatest Labor-Saving Machine of the Age.

COATES' LOCK LEVER SULKY RAKE.

WALTER A. WOOD'S HARVESTER AND SELF-BINDER.

THE CELEBRATED

La Belle Farm and Freight Wagon.

SWEEPSTAKES THRESHERS,

SPECIALLY IMPROVED FOR THE PACIFIC COAST.

HAINES' HEADER,

WITH ALL THE LATEST IMPROVEMENTS.

Chaplin & Tiffin's Revolving Rakes,

Warranted the Best in the Market.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT. — In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars. E. P. HEALD, President Business College, San Francisco, Cal.

CALVERT'S

CARBOLIC

SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

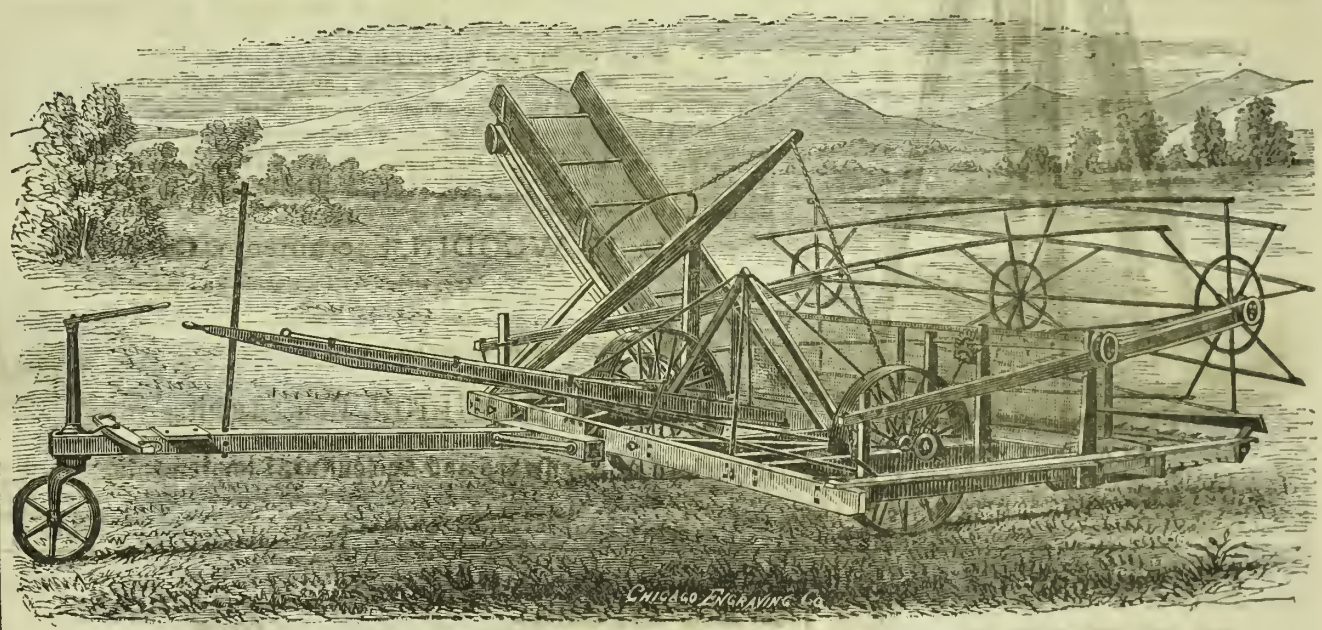
Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

KELLER & CO.,



IMPORTERS AND DEALERS IN

AGRICULTURAL IMPLEMENTS, MACHINES AND FARMERS' TOOLS.

We are Sole Agents for the following Celebrated Machines:

J. I. Case & Co.'s 18-horse Engines.

We guarantee these Engines to furnish more power, with less fuel, than any other make in the market. They are handsome in appearance, mounted on substantial trucks, and furnished with driver's seat, roller break and hand pump.

J. I. Case & Co.'s 40-inch Separators,

With large cleaning capacity, made expressly and just imported for this trade.

Pitts' Down and Mounted Powers,

HEAVIER HAINES' IMPROVED SINGLE-GEAR HEADERS.

These Headers are manufactured by the same party who has superintended the building of all Headers ever made for this trade. Knowing the wants of this market, he has added many improvements for 1876, which will be found on no other Header.

J. I. Case & Co.'s Improved Single Gear,

WITH ADJUSTABLE SPOKES AND REEL.

These Headers are so well and favorably known that we only add for the year 1876 they are better made than ever before. We have these headers in sizes of 10, 12, 14 and 16 feet.

Mowers.

EXCELSIOR MEDIUM MOWER, EXCELSIOR JUNIOR MOWER, ÆTNA MOWER, WOOD'S MOWER, PEERLESS MOWER, MEADOW LARK MOWER. The finest assortment of noted Machines ever kept by one house.

Header Wagons.

The reputation of Fish Bros.' Pacific Wagons is so well established that parties buying these Wagons know without doubt they have the very best in the market. We have a large stock of IRON AXLE HEADER WAGONS. We guarantee them to run two years without the resetting of the Tires.

Lock-Lever Steel Tooth Hay Rake,

Awarded the FIRST PREMIUM at State Fair last fall as the best Steel Tooth Rake. This is a self-dumping Rake, and stands without a rival.

Sulky Revolving Rake

Has become very popular as the best Winrowing and Bunching Rake. Also, a full stock of Revolving Rakes.

Harpoon Hay Forks.

The double harpoon is the only reliable Horse Fork for all kinds of hay.

Faust's Hay Loader,

The only successful Hay Loader in the world.

Buckeye Corn Cultivator.

This is either a Riding or Walking Cultivator. More of them in use than all other makes combined.

The Gorham Seeder and Cultivator,

The Only Reliable Seeder now in Use.

Barbed Wire for Fence,

Also, Single Barbs, separate from the Wire. They can be attached to any Wire Fence anywhere. They are immovably clasped around the Wire, after the Fence is built, with pincers furnished for the purpose.

Halladay's Windmills.

They are the Standard Mill the world over. Have gained a reputation as broad as its use is extensive.

Wagons, Plows, Cultivators, Harrows, Seed Sowers, Etc., Header Knives, Mower Knives, Sections,

AT HALF THE USUAL PRICE PAID OTHER DEALERS.

Our Goods are the best in the market. Our prices are the lowest. Our manner of trading is well known all over the Coast. Our Machines are so well and favorably known that farmers make no experiment when trading with us. Send for Circular and Price List.

Address, KELLER & CO.,

43, 45, 47 J Street, Sacramento, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for, stamp. A. H. Fuller & Co., Brockton, Mass.

The ALTHOUSE WINDMILL.

Awarded the First Premium for Mill for all purposes, at the Missouri Grand Exposition, Sept., 1875; also, the Silver Medal for best governed Mill, First Premium at California State Fair, and Stockton District Fair, Sept., 1875, at the Iowa State Fair, 1875, and at Wisconsin State Fairs, 1874 and 1875.

IN A LIGHT WIND.

We guarantee that any one nsing our Mills can retire at night feeling no uneasiness—no matter how hard the wind may blow—and rise in the morning not to look upon a wreck, but a perfect working Mill ready to perform its task. The Mill speaks for itself. ☞ACTIVE and RELIABLE AGENTS wanted for every county in California and Nevada.

PERFECTLY SELF-GOVERNING,

Reliable, Durable AND Ornamental.

"It has no equal; complete in all its parts."

CONCORD, CONTRA COSTA CO., March 2, 1876.

MR. L. H. WOODIN, Sacramento, Cal.

Dear Sir:—The Althouse Windmill I purchased of you exceeds my most sanguine expectations. It runs light and strong, and does its work to my utmost satisfaction. As a self-regulating Mill it has no equal; in fact, it is almost, or quite perfect. Its workmanship is complete in all its parts, and it is all the most exacting could desire in a First-class Windmill. I take pleasure in recommending it to all who contemplate purchasing. I remain yours, etc., B. F. BEEBE.

"Look no farther, for it is good enough."

SUISUN, SOLANO CO., February 28, 1876.

L. H. WOODIN, Sacramento, Cal.

Sir:—Your agent, Mr. Stephens, put up for me a 10-foot Mill, with a guarantee that it was to do all you claim for it in your circulars, or no pay. I have become satisfied perfectly, as the Mill has more than met my expectations. It will run in lighter wind than any Mill I know of, and will pump right along in the heaviest gales. I would say to any one wanting a Windmill, look no farther, for it is good enough.

Respectfully yours, DAVID HALE.

Works Quietly and Steadily in Severest Gales.

SACRAMENTO, March 1, 1876.

L. H. WOODIN, Proprietor of the Althouse Windmill, Sacramento, Cal.

Dear Sir:—I take pleasure in stating that in all my experience with Windmills, after having been a resident of this State over 25 years, I have never seen one so perfectly self-regulating and self-protecting as the Althouse. The Mill has pumped abundance of water in light wind, and has worked quietly and steadily in severest gales. I gave it a thorough test in the great gale of January 23d, 1876, and can freely recommend the Mill to all parties needing one. Respectfully yours, A. CRAW.

L. H. WOODIN, Sacramento, Cal.,

Proprietor for California and Nevada.

SEND ORDERS DIRECT TO

BAKER & HAMILTON, Gen. Agents,

Importers of Hardware and Agricultural Implements,

SAN FRANCISCO or SACRAMENTO.

IN A HEAVY WIND.

Heavy wind moves the fans backwards. In light wind the weight moves them forward, thus giving the Mill an almost unvarying speed. The vane being large, it is impossible for the Mill to get in a position in which it is not ready to work. ☞ Send for Circular and Prices.

Practical

BOOKS

—AT—

BANCROFT'S.

A. L. Bancroft & Co. keep on hand a large stock of American and European Books, Suitable for

CIVIL ENGINEERS,

FARMERS,

MACHINISTS,

And Industrial Classes generally, and supply them, post free, at published prices; for particulars of which see catalogues, which will be forwarded on application.

A. L. BANCROFT & CO,

721 Market Street, S. F.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

THOUGHTLESSNESS.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR.....PRESIDENT.
I. G. GARDNER.....VICE-PRESIDENT.
G. P. KELLOGG.....TREASURER.
A. W. THOMPSON.....ATTORNEY.
FERD. K. RULE.....SECRETARY.

TRUSTEES:

J. D. BLANCHAR.....S. F. | I. C. STEELE.....San Mateo
G. P. KELLOGG.....Salinas | G. W. COLBY.....Butte Co
I. G. GARDNER.....S. F. | A. WOLF.....Stockton
CHAS. LAIRD.....Salinas | C. J. CRESSEY.....Oakland
URIAH WOOD..San Benito | J. C. MERRYFIELD..Dixon
A. B. NALLY.....Santa Rosa | E. W. STEELE, S. L. Obispo
A. W. THOMPSON.....S. F. | C. S. ABBOTT.....Monterey
A. D. LOGAN.....Colusa | DR. T. FLINT.....Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301,72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

EXTRAS! EXTRAS!!

Headquarters for Extras for the following Harvesting Machines: Clipper, Wood's Eagle, Russell's and World Mowers and Reapers, Dayton and Chicago Pitts' Separators and Horse Powers, Haines' and Case Headers. Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO.,

3 & 5 Front St., San Francisco.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur *at any time*, please report them to the office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4jl76.

OUR

NEW PATTERN.

The New Pattern of English Stone China, called the Cable Pattern, has become a very popular pattern, being as handsome as French China, while it costs about one-third the money. The shapes are new and very pretty, and are much more desirable than the old and heavy styles formerly in use.

O. LAWTON & CO.,

Sole Agents for the Pacific Coast,

MARKET STREET,

Under the Grand Hotel,

SAN FRANCISCO.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New } Sweet Corn.

Early Canada, Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8:tf SAN FRANCISCO

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS.

PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.

Please enclose stamp.

P. of H. JEWELS

THE MOST COMPLETE SET EVER OFFERED THE PATRONS OF THE ORDER.

36 PIECES (JEWELS & PENDANTS, WORKING-TOOLS, STAFF MOUNTINGS) FOR $8.00

Lever Seal, Standard Design, $3.

To order, under Seal of Grange. I will send a set for examination. Address,

JAS. MURDOCK, JR.

165 Race St., Cincinnati, O.

Send for Price List and Illust'd Catalogue.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, MAY 13, 1876. [Number 20.

Tonnage.

Now that assurance of splendid grain crops is becoming daily doubly sure, there is awakening considerable life in the line of freights and charters for July and August loading. Shipowners are holding their rates firm, and unless their terms are met for immediate loading, are content to wait for the new crop. We note within a week past the engagement of 8,099 tons for new crop. Most of the charters are on private terms, but several are announced at £3@£3 5s. It is reported that there are now upwards of 70,000 tons already engaged to arrive for the new crop.

We gave in our market report last week Mr. Friedlander's statement concerning the aggregate of tonnage now on the way and loading for this port. In order that our readers may see how the amount compares with the aggregate hither bound at this time in other years we have gained Mr. Friedlander's figures as follows:

1871, May 1st	101,552	tons
1872, " "	140 052	"
1873, " "	126,984	"
1874, " "	126,662	"
1875, " "	164,152	"
1876, " "	236,428	"

According to this statement it appears that there will be available for wheat 72,276 tons more this year than last. Throwing out the tonnage already engaged (stated to be about 70,000 tons) there remains a probable supply of disengaged tonnage equal to the whole amount bound for this port a year ago. These are the facts in the case as nearly as we can learn them. Whether this supply will be adequate for our needs, in view of the immense crop which is almost realized, is a question worthy of consideration. The fact that ships are being readily taken at the prevailing rates demanded by ship masters would indicate that some one has confidence in the future price and is ready to invest in floating property.

An Important Land Decision.—A Washington dispatch to the *Alta*, dated May 8th, says: The Supreme Court to-day reversed the decree of the Circuit Court of California in the case of Newhall vs. Sanger. The decision determines the vexed question involving the rights of many settlers on lands claimed by the Central Pacific and other railroads within the limits of rejected and fraudulent Spanish and Mexican grants, and decides that the railroad grants do not attach to lands which were reserved from entry on account of private land claims at the time the grants were made to the companies, notwithstanding such claims were subsequently rejected. This overthrows the decision of Secretary Delano in the Dillingham case, and secures the settlers against the claim of the railroad companies, not only where grants have been confirmed, but in those which are now contested by the railroads. Justices Field and Strong file dissenting opinions.

Drawback on Imported Bags Exported Filled with Grain.—A short time since Messrs. E. Detrick & Co., of this city, addressed a communication to the Treasury Department asking whether a drawback on imported bags would be allowed if said bags were exported filled with grain, and the following reply was forwarded through the office of the San Francisco Collector of Customs:

Please inform the applicants that the existing regulation is intended, and, so far as the Department is informed—understood at your port and other ports—to authorize allowance of drawback on all exportations of bags made from imported cloth, whether such bags are exported empty or filled with grain.

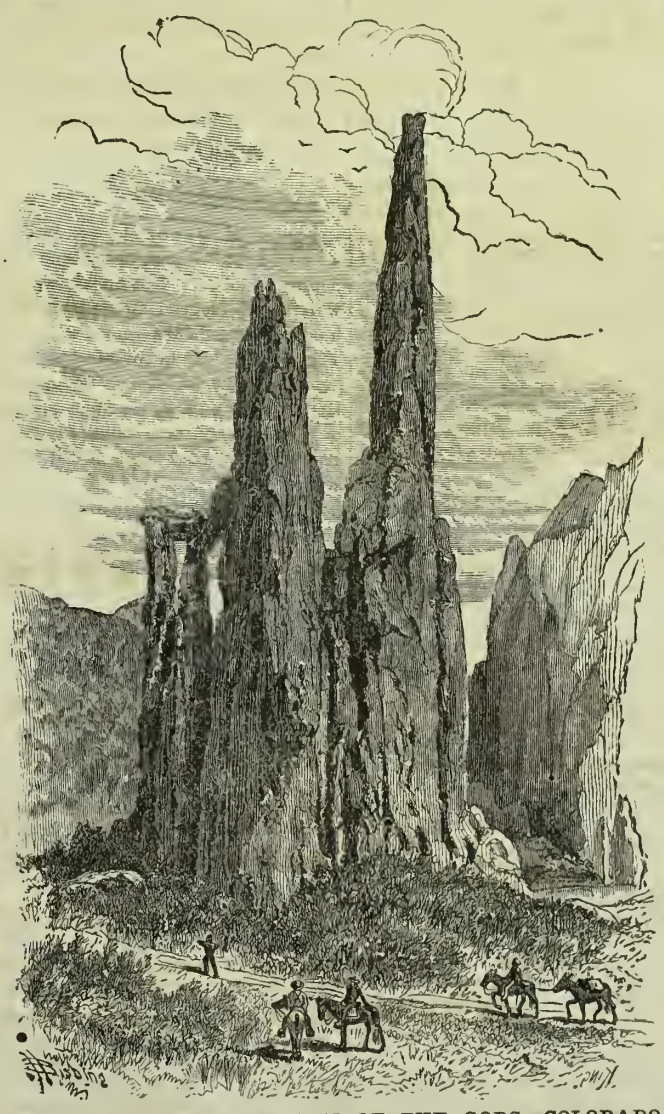
(Signed) B. H. Bristow,
Secretary of the Treasury.

Short Horn Sale.—A dispatch from Springfield, Ills., announces the auction sale of the Kissengen & Pickerell herd of Short Horns. The total amount realized was nearly $36,000. Among notable sales were: The Countess of Cornwall, for $2,050, to R. Holloway, Alexis, Ills.; Countess of Oxford, to Brown & Sons, Berlin, Ills., for $1,500; London Duchess of Bedford, to A. Kimberly, West Liberty, Iowa, for $2,700, and Ada Sixteenth, to D. J. R. Shelby, Shannon, Ills., for $1,500.

Cathedral Rocks.

We present our readers on this page another of the scenes which we from time to time reproduce, illustrating the wonderful works of nature in the great central region of the country. The massive piles of rock which are shown in the engraving were named Cathedral rocks by Prof. Hayden. The resemblance of the towering masses to the sky-piercing structures which men rear over their cathedrals is very marked. Cathedral rocks are situated in the "Garden of the Gods," in Colorado. Of this locality, Prof. Hayden writes in his report as follows:

This interesting and peculiar place is a valley in the foothills of the range, and is inclosed by an almost vertical wall of massive sandstone of Cretaceous age. The rocks which we find inside have been subjected to an immense deal of erosion, and the many ridges and tower-like forms left standing throughout the garden are the remnants of the parallel strata which dip to the northeast at a very great angle. In some places they seem to dip a few degrees in the opposite direction. As we go toward the mountains, the dip decreases. These rocks are fine-grained sandstones, of a deep brick-red color, with here and there layers and spots of a lighter red, and sometimes white. The ridges are exposed for some distance to the north, while to the south, after bending toward the east, they appear to be covered by the *debris* from the mountains. The entrance to the "garden" is through the "Beautiful Gate," an opening through one of the highest ridges of red sandstone. We estimated the hight of this ridge to be 300 feet. The northern end is considerably higher, and viewing it so as to see the end alone, the resemblance to the tower of a grand cathedral induced us to call it "Cathedral rock."



CATHEDRAL ROCK, GARDEN OF THE GODS, COLORADO.

Peavines for Hay.

Not long since, while we were discussing the subject of rotation, one of our correspondents assured us that the best change which could be made in his section was from grain to peas. It may not be generally known that the peavine may be made into a good nutritious hay for stock. A cultivator in Louisiana gives the *Home Journal* some very explicit directions concerning making peavine hay, which may be of value to our readers and show them additional inducement to make an occasional salutary change of crops: The best time for cutting the vines, when desired for hay, is after the pea is formed. With regard to the cutting, curing and due preservation of the peavines—a great deal of care and attention has to be observed, and more work in connection with same than is necessary with the generality of other hay. The peavines should be turned frequently after cutting. With good drying weather and according to the thickness, age and stand of vines, I have many times succeeded in securing them in the course of one and a half and two days—and frequently had to wait for three or more days. When commencing the operation of cutting early—the vines then being full of sap and often plentifully stocked with green peas—the most advisable course of procedure will be to pile or shock up the vines in the field for a day or two, if the weather permits—and after the consequent heat, which will take place immediately, break down and turn over again, when you can with all safety commence the operation of hauling and storing away—with your hay in a sound condition, and not, as is often the case, burnt up with the sun—and minus the most essential quality required.

Thoroughbred Cattle Drawings.

We recently announced that Andrew P. Hill had been engaged in preparing drawings of thoroughbred cattle, engravings of which we expect to present to our readers. He has been doing some drawing which is worthy of the highest praise. He made a picture of the splendid bull

Sonoma,

Of the Cotate herd, which we do not believe can be surpassed by any stock portraiture in this country. The Page Brothers have the drawing beautifully framed, and it may be seen at their office, 302 Davis street. The subject is now being prepared for our engravers. After his work at Cotate, Mr. Hill went to Oak Home ranch, the splendid property of W. L. Overhiser, of Stockton. Of the beauties of Mr. Overhiser's ranch and of the success of Mr. Hill's work the Stockton *Independent* writes as follows:

Oak Home Ranch.

We yesterday had the pleasure of visiting the Oak Home ranch, four miles from Stockton, on the Waterloo turnpike, the residence of W. L. Overhiser, Esq., and of inspecting his fine herds of thoroughbred stock. For a number of years Mr. Overhiser has made a specialty of raising thoroughbred Short Horn cattle, and his experience is, (the same of all who have tried it,) "that it pays." His herds are among the handsomest we have ever seen anywhere, and from first to last show their aristocratic blood. He has three Durham bulls, which he keeps in the stable carefully fed and groomed, and which are each worth $1,000. One, a roan, is three years old, another, white, is four years old, the third, dark red, is three years old, and each weighs over 2,300 pounds, while they have probably not reached their growth. They have all the points of blooded Short Horns, the broad back and long straight spine, the square right angle at the rump, and the flat, short horn. While there we made the acquaintance of Andrew P. Hill, a talented young artist, who was engaged in making sketches of the Short Horn cows, which are designed for publication in the Pacific Rural Press. His pencil drawings exhibit a faithfulness to nature, an exactness of detail, a delicacy of shade and touch and a lifelike spirit and expression that bid fair to place the artist among the most famed of his profession. It is saying a great deal, and we speak it without an intention of flattery, but we think that with experience, study and labor, he must in time compare favorably with Rosa Bonheur or Edwin Landseer. He is but 22 years of age and has taken in all but three weeks' instruction in drawing, so that his talent is thoroughly natural. Mr. Hill lives in Oakland and is very enthusiastic in his profession, making a specialty of animal drawing. We compared his drawings with the originals, and by looking at them were able to pick the subjects out of a large herd. We saw some sketches of Rutherford, the running horse, a Jersey bull and cow, and others by him that exhibited the same truthfulness to nature. He is now traveling through the State, visiting the prominent stock ranches and taking sketches of the stock. We remained on the farm but a short time, but were much interested in the general arrangements for the raising of stock on a large scale. The barn, which is an immense one, covering an acre or two, is conveniently arranged with large storage for hay and feed, derricks for hoisting, stalls for cattle, horses and mules, and with water all over it, supplied by an ample tank. This tank, which holds 7,500 gallons, is a fine new one, lined with zinc and supplied with water by means of a horse-power of new and simple construction. Mr. Overhiser has large herds of thoroughbred sheep, which were being put through the sulphur bath for scab at the time we were there, an operation which, like bitter medicine, is hard to take but good in its results. Oak Home ranch is very appropriately named, as it is embowered in a grove of these monarchs of the plains, and its owner is not only an extensive stock raiser, but has broad acres of grain which yearly yield him their golden wealth.

Interesting Matters to Come.—Owing to the press upon our columns this week we were forced to lay over for our next issue several very interesting favors from our correspondents. They are so good that they will keep.

CORRESPONDENCE.

A Visit to the Petrified Forest.

EDITORS PRESS:—The Petrified Forest of Sonoma county is one of the most remarkable of the many natural curiosities with which our State is endowed, yet it is one of the least known and least appreciated. I cannot recollect having ever seen any mention of it in the RURAL, and as there are doubtless many among your readers who have never read a description of it, permit me, through your columns, to give an account of a visit I paid to it in the early part of the present month.

The Forest is situated on the western slope of the low mountain range that divides the counties of Napa and Sonoma, just where it is crossed by the road from Santa Rosa to Calistoga, and equidistant from the latter place and Mark West springs. It is oftenest visited

From Calistoga,

And that is the point from which it was approached on the present occasion. Leaving the western end of the village the route is along the famous Foss road to the Geysers for half a mile or so, until a creek is crossed, where you "take to the left," and follow it up until it brings you into the woods; then the ascent of the mountain begins. The road is a delightful one; through the woods all the way, with a grade so easy that it is "just pleasant," and with Mt. St. Helena seen through each little opening in the trees, towering up majestically but a few miles away across the valley. Four miles from Calistoga the summit is reached; thence it is a mile down hill to the Forest, past one or two rude clearings. At length you reach a substantial fence on the right of the road, and a moment later are in sight of a couple of board shanties, in front of which is a gate bearing the inscription "Petrified Forest." Entering, a dog and a large white goat run down to dispute your progress, and their noise brings upon the scene their master, the proprietor of the Forest, Mr. Charles Evans. He is the genius of the place, and a genuine character. Some of the irreverent scamps of the vicinity have fixed upon him the nickname of

"Old Petrified."

Here he has lived the life of a hermit for the last five years, with no society save that of his dog and goat and the tourists who visit the Forest. He has been very busy all this time, all the improvements upon the place being the work of his unaided hands; besides excavating the trees and putting the forest in condition, he has reclaimed almost half of the 160 acres he holds from the chaparral and brush that originally covered it, and has built a substantial fence around the whole of it. He is a man of some 60 years, a Swede by nativity, but a resident of California since '49. He chanced upon his Petrified Forest property here by accident, and pre-empted the quarter-section containing it without any idea of the treasure it contained. This was in 1871. The Forest had been discovered the year before, but was so little thought of that he had never heard of it. Now he has exaggerated ideas of its value. "If I were a young man," quoth he, "no money could buy it; and old as I am, with no kin in this world, the man that buys it from me must give me a hundred thousand for it."

This, and a great deal more, he tells you while leading you about among the fossilized trees, for he is a talkative old gentleman when he finds an appreciative listener, and he speaks good English, though with a strong accent.

The Forest

Is just back of his house, upon the side of a gently sloping hill. It covers about 50 acres, a good part of which is cleared, the remainder being covered with chemisal, manzanita and other low brush. So far Mr. Evans has found some 300 trees, of which 100 or so are very plainly in sight, the rest being buried in the lava-soil of which the hill is composed. The first evidences of petrifaction which you observe on entering the Forest are a pile of chips looking for all the world like the sweepings-up of a ship yard. These have been thrown together by Mr. Evans, but the soil through the entire Forest is full of fragments. He finds them in every spadeful of earth he lifts. From this you pass to the first tree—not a very long trunk, but thicker than any living one within miles—and so on around the Forest, Mr. Evans giving you the history of each so far as he knows it, and his suppositions concerning the part he does not know. Probably the finest specimen is one which he has uncovered for the distance of about 50 feet. It is some ten feet in diameter. Another large one has

A Living Tree Growing Through It,

And evidently flourishing. All the trees are lying with their tops *from* Mt. St. Helena, which would seem to indicate that they were overwhelmed by lava from that direction, but when and how their silicification came about, who can tell? None of the trunks have been found standing upright, and there are very few of them on which any bark is preserved. Petrified branches and twigs are also rare, but Mr. Evans has found a great deal of wood which he thinks was charred before it was silicified, and in a house which he calls his "office," close by his dwelling, he has a piece in which he is positive that the marks of an ax are plainly to be seen, chopped into, in all likelihood, "by people who lived here before the world was created."

In this office he has collected the finest specimens he has yet found. Here, too, is the Visitors' Register, which discloses the fact that the Forest is visited by three or four Eastern people and foreigners to every Californian—two Bostonians to one San Franciscan. Mr. Evans, as a '49er, complains of this neglect of the people of his State, and it does seem strange, considering how well worth seeing the Forest is, and how easy of access. By way of Santa Rosa and Mark West springs the distance from San Francisco is about 70 miles, but the round trip there and back can be made for little more than five dollars, and a more pleasant one for the money cannot be made. In 1871 the number of visitors was 738. Since then it has increased regularly, so that in 1875 it was 1,756, but this is not near what it should be or what the merits of the place as a natural curiosity deserve.

An hour will suffice for a hurried visit, but a half a day, or a whole day, can be pleasurably and profitably spent there, seeing and wondering and collecting specimens, any number of which can be had for the carrying away—indeed, Mr. Evans will load you down with them—fill all your pockets whether you will or no, and let you depart weighing 20 or 30 pounds more than when you came. H.

San Francisco, April 28th.

Farmers Selling Out.

EDITORS PRESS:—Amid all the blessings which surround the farmer of the foothills I find that four out of six are in the market to sell. Selling home and its associations! Does man know in reality when he is well off? I fear not; for I see men in circumstances which thousands would rejoice to reach, and yet *on the sell*. There must be a cause for this universal willingness to part with the homestead and tread the path—so full of thorns—of the oute. My attention has so often been called to this fact that I have given the subject some attention. By enquiring into the cause of dissatisfaction I find that, nine cases out of ten, the complaint is overwork and small remuneration.

I know several who try and do cultivate from 100 to 300 acres by their own labor, with some little help from the growing family. Aside from plowing and seeding, there is the fencing to be kept up, cows to attend, horses and colts, pigs, fruit, irrigation, marketing, trading and a thousand things to be done in connection with successful farming. Is it a wonder that outraged nature cries aloud for relief? The only open door, seemingly, is selling out and running away from such a field of care and toil.

There must be a remedy for this evil, without making a sacrifice of home and all its hallowed associations; some means devised whereby the farmer may free himself from physical slavery. My panacea would be hired help. Ah, but my friend comes in with his excuse that help is too expensive and will not pay. I cannot believe it. The time is not far distant when help will be hired by the year, and at such a figure that the hired man will not own the property after a few years' faithful labor. By figuring *pro* and *con* we find that when the farmer is engaged in hard manual labor, he is losing in many other channels. The stock of the farm is uncared for; tools are strewn about as if had for nothing; wagons unpainted and exposed; a good bargain has slipped from under his fingers; no time to keep the run of the markets or consult buyers; the back is bent, the feet become a drag, the earthly paradise only produces thorns; the evenings are spent in lamentations, the nights in disturbed slumber; the family neglected, the wife spurned. But the field is being cultivated. Ah yes, your field is being cultivated, but you yourself would stand aghast could you witness the fearful sacrifice which is made to accomplish that end.

If the owner of 300 cultivating acres must do all the physical labor necessary, better far to sell and go where you can do a moderate day's work for fair wages. But the man of prudence and calculation will hire the hardest of the work and attend to every other duty, so as to regulate the whole, the same as a complicated piece of machinery. True, labor has been held at a high figure; but there is a time of the year when money may be realized from crops, etc., to satisfy for a year's labor. If white men will not work for a reasonable compensation, then try the colored. But above all things do not sell because of physical hardships. JOHN TAYLOR.

BEES.

Swarming and Foul Brood.

EDITORS PRESS:—I see a communication to the PRESS from "W. W.," of Santa Rosa, asking to be told the best way to save the bees when they swarm. My way for saving swarms for seven years has been to have a good clean hive, set it under the swarm, take out one of the empty frames and take it to the hive the bees came from, take out one of the frames with comb, put the empty frame in its place, then take the frame with comb and place it in the center of your new hive. Then shake the limb the bees are sticking to; they will fall on top of your frames. Have your cloth by your side; spread it over them. In a few minutes put your lid on and you could not drive them away. I have 250 hives, and have but few swarms. Bees will not swarm if they have plenty of room. In the spring, when they have pretty well filled all their comb with brood, pollen and honey, put on a cap and they will not swarm. If they have drone comb, cut it out. Sometimes the queen will go up into the cap and lay her eggs; it is all for the want of room. The bees have filled too much of her space with pollen. She being overburdened with eggs is the cause of her going above. Take off the cap, set it on a board, place a lid on and you will have in a short time a good hive of bees. Put a cap on both hives.

Foul Brood.

There has been a great deal said about "foul brood," and men have for generations tried to find a remedy, but all to no effect. It is contagious, and my remedy is to kill the bees with sulphur, burn up the comb and honey, and turn the hive over a blazing fire until it is charred. Hang your frames up where the bees cannot get to them. By doing so in a short time you will have good, healthy and thrifty bees. When your brood will not hatch you must not always think it foul brood, (for if it is, when you lift the lid you will meet with a disagreeable stench,) but often in cold weather the brood gets chilled and will not hatch. In the spring I divide one-half of my bees and put caps on the other half. My way of dividing is to take a good clean hive with its number of frames. I take out one-half of the frames. I take the hive I am going to divide and move it aside. I set my new hive in its place. I then take out one-half of the frames and put them in my new hive, and put empty frames in the place, and move it some distance away, being careful to brush off most of the bees and leave them in the old hive, for more or less will go back to the old place they were moved from. Be careful to have brood eggs or larvæ in both hives, so the hive that has no queen can make one. J. J. S.

San Joaquin Bridge, May 6th.

Raising Queens.

The late M. Quinby, the well-known apiarian, described his system of raising queens artificially as follows: I first make a box five inches wide, seven inches long and six inches high, holding three combs—more will do no harm. These combs should contain honey to last two or three days or more. Now go to the hive from which you are breeding and obtain a piece of comb, nearly three inches long and less than half an inch wide. This should be new, if possible. The larva should not be less than two, nor more than three days old, from the egg. In the center of the middle comb cut out a space three inches long by an inch in depth. This piece of brood is supported by ledges at the ends on the upper side of the space. Allow no more brood in the box.

In the middle of the day when the bees are out, take from a strong colony that is hatching young bees, a little less than a quart of bees, and nearly all will be young nurses. Shut them in the box 36 or 48 hours, and then let them out. They will make from six to ten cells. If the brood is just the right age, they will be likely to hatch in ten days, not less. At the end of that time look early in the morning, and if you can cut any of them out without injuring the others, do it, but leave one. If joined so that you will have to destroy a part to separate them, leave them, but examine several times through the day, and if any hatch, remove them at once; I have found four hatched, at one time. The cells that have been cut out may be used to supply other nuclei, or they may be transferred to the queen nursery. I claim that I can raise, thus cheaply, as good queens as can be obtained. I feel like saying better than those will average where a full colony has been employed to raise a dozen.

I know that I am on delicate ground now. Some of my best friends, who are earnest in their wishes to advance the science of bee culture, will pity, perhaps condemn me. If the reasons that I give are not sufficient to sustain the system, let it fall; I want it upheld by merits of its own, or not at all.

How is it with natural swarms? Ten or 15 cells are often made where a swarm has issued. The first are made under the impulse of the swarming fever. If the swarm issues before any are sealed over, very many will be started at once. Some of them, however, after the swarm has left, receive much less attention than the first ones did. If want of attention makes an inferior queen in case of artificial rearing, can any one say why the same causes will not produce the same results here? We are not likely to ascertain for a certainty, as all except two or three of the first are destroyed. But when we come to imitate natural swarming, in a sense, by removing a queen from a full stock, and claim better queens in consequence, we can test it somewhat. We find in the attempts to replace the mother a still greater diversity in time of starting cells. It is reported that some queens will hatch in nine days, some in 10, others 16 and 18 and all intermediate times. Those under 10 days are claimed as deficient in development and short lived. I never had any nine-day queens and cannot say. Those that are slow to mature are quite apt to be deficient. I do not say that some such do not make beautiful queens, but the average is no better than 10-day queens.

When first deprived of the mother, the bees make cell over larva, without seeming to care much for a convenient place; after the first impulse is over, they find a good place occasionally, and commence other cells, but having a large number already, they work as if they cared little for these last. They seem to nurse such for want of something to do—never expecting to need them. They may be all right except late, and just sealed over when the first one hatches. It is hardly possible to cut out such unripe cell, and get from it a good queen. Until a queen has its shape and begins to get color, it is very delicate and tender. The cell is twice the size necessary to hold it, and if it is cut off and only turned over—even if carefully done—it falls from one side to the other, and is bruised badly, making it a cripple and inferior in color.

SHEEP AND WOOL.

Long Wooled Sheep.

The sheep shearing at Lennox's establishment has closed for the season. During the nine weeks it has been in operation some 75,000 sheep have been relieved of their coats, or about 1,400 daily. The total amount of wool shipped from the corral, 426,874 pounds, an average of about five pounds and two-thirds per head. This is a very full clip when it is considered that nearly all the sheep had only a six months' fleece upon them. Only a very few bands carried a year's fleece. One band of yearlings, numbering 3,800, sheared over five pounds for a six months' clip. Another band, owned by one Valdes, yielded a little over seven pounds of wool for a twelve months' clip, a few of them carrying their wool for eighteen months with no lose at all. Although not yielding so much in weight these sheep are considered much more valuable to the owner than those that yielded as much almost for a six months' clip. The wool is very long and clean, and will command in market as much again as ordinary staple of California wool. These sheep are the product of the Southdown ewes with French Merino bucks. The carcass is large and has all the superior traits of the Southdown for mutton. The wool is of medium fineness—quite fine enough for this market—and long; not being so thick and fine, it does not deposit so much oil and is consequently much cleaner than the finer and more oily wools. In proportion as it is cleaner it is less liable to scab and cutaneous disease, which is always originally the result of filth and dirt. This is shown by the fact cited above that some of these sheep carried their wool 18 months without any loss whatever. They were clean and free from disease and there was no reason why they should drop their wool.

In contrast to this we call to mind another instance under our own observation, where a band of Spanish Merinos that had not been sheared for a year lost quite half their wool before they were sheared, the product not being more than what it should have been for six months. In this case the sheep were badly scabbed, which accounts for the loss of wool. In this county, and in California generally, we believe it has been the fashion to breed Spanish Merinos almost exclusively for wool bearing sheep. We have certainly produced a fine wool, but there is no market for it. Our product is the lowest in the grade of woole, in point of commercial value, because it is short and dirty. We believe a movement will be made among breeders that will result beneficially to this great and growing interest. There is one thing certain, we must have a longer staple if we expect to occupy any place in the market. This can be obtained in two ways; first, by adopting the rule of annual shearing only. This will give us a longer staple, but with our present grade of sheep we are not satisfied that it will be profitable to shear but once a year. As before remarked, the fineness of the wool and extraordinary secretion of oily matter collects dirt, and it is almost impossible to keep them clean. With dirt comes scab and a loss of the wool. From careful inquiry and observation we are convinced that with our present breed of sheep annual shearing would be attended with material loss from the causes cited, so that a long staple would be secured only at a sacrifice of quantity, and no doubt the wool would be more or less injured by the frequent dippings and doctorings that the animal would have to undergo to save any of his wool. The second way to secure a long staple is by breeding the present grade ewes to larger bodied, longer wooled bucks. The wool would suffer in fineness, but would gain in length, and as we have no market for our short fine wool, but have a demand and better prices for a longer, coarser wool, it would seem the proper thing to produce it. The tendency to disease, too, would decrease with the removal of the causes, and the long wooled sheep would carry his wool on his back without loss, while the "fine haired" brother lost his by disease.—*Kern Courier.*

The Dairy.

The Cow in California.

California is destined to become one of the first dairy States in the Union. It is but a few years since we imported all the butter and cheese we consnmed, while our cows roamed the plains unmilked and nncared for, except that they were gathered together once or twice a year in rodeo for the purpose of branding the calves and separating neighboring herds. Ranchmen lived and moved in the midst of their prospering and increasing herds without milk, without butter, and without cheese, never dreaming that they were throwing away the principal benefits these herds were capable of bringing to man. Nor was there at that time any effort made to improve the breed or quality of the animals constituting the herds—the all prevailing idea and effort being to increase the numbers. Beef had been high while cattle were plenty, and why should this state of things change? Thus reasoned the owners of cattle, while they sat contentedly in their ranchos, or basked in shaded hammocks during the midday, and, mounted on favorite mnstangs, with Mexican bridles and saddles, and jingling cart-wheel spurs, of an evening they took a *pasear* to the nearest hacienda to enjoy the excitements of a fandango. But such a state of things could only last with a Spanish people and a Spanish civilization. Americans would not give high prices for beef when they saw fat cattle on every hand, simply because their owners were too lazy and indolent to kill them. Americans would not countenance in their midst men who attempted to don the dress and habits of Spanish rancheros. Americans would not submit to snch a backward movement as would reduce a class of their own people to a semi-barbaric condition, or remand one of the most useful of domestic animals to the uncertain and valueless state of wild beasts. Americans had been bronght np to regard the cow as of some value as well as the bullock, and to set some value upon her milk and the articles made from it, as well as upon her carcass and hide and horns. Americans, too, have learned that the American domestic cow was a far more valuable animal than the Spanish vaca. Hence, as early as 1850, large numbers of American cattle were driven across the plains to California. Many came in large herds, brought by drovers on speculation, but larger numbers were brought over by families as a part of the household establishment. The introduction of the American cow, however, under such apparently favorable circumstances, was not, as might have been expected, followed very rapidly by her general use among farmers for butter and cheese making. The myriads of people who came here in those early days were too much set upon gold finding and rapid fortune making to allow them to come down to the old-fashioned way of working—of milking cows, skimming milk and churning butter, or to setting milk for curd and cheese, and turning and ripening cheese for a living. They soon convinced themselves that butter at 50 cents a pound, or cheese at the same price, would not pay in California, and what was still more absurd and untrue, that the climate was unfavorable to the successful prosecution of the dairy business in any shape. The consequence was that the American cow, for a term of eight or ten years, was of but little more practical value to the State than had been the Spanish vaca. Butter and cheese were still imported, and farmers' grocery bills were largely increased by the frequent items of these articles charged in them. We are sorry to say that this is still the case to too great an extent, although the idea that the olimate of onr State is not favorable to the dairy business in all its forms has fully and completely been exploded long since. One of the strongest proofs that a

Change for the Better

Has taken place in this respect, and that the dairy industries are taking their proper position among the rural employments, is found in the fact that not only has the importation of Eastern butter almost entirely ceased and our markets are plentifully supplied with a splendid article of home manufacture at a very reasonable price, but that California butter finds its way to the Eastern cities in large quantities, and commands higher prices there than butter made at the best Ohio and New York dairies. The progress of the dairy interest in this State has heretofore been assisted by individual exertion only, prompted alone by the money there is in it. No associated effort at improvement in the dairy practices or in the redaction of expenses in butter and cheese making have been made, and no method of conveying the experiences of one dairyman to his fellows in the same business has heretofore been adopted, and the wonder is not that we have not made greater progress, but that we have got along as well as we have. There is, however, at this time a strong feeling among the best dairymen here that the time has now arrived when something of this kind should be done, and this feeling has been put in tangible form by the editor of the PACIFIC RURAL PRESS, who has issued a proposition for the organization of a

California Dairymen's Association.

In pursuance of this idea, and to still further give shape to the prevailing sentiment, the editor referred to has sent out among the dairymen the following call for a meeting:

Believing that an organization of California dairymen will be useful in devising measures for the promotion of the dairy interests of the State, valuable for improving dairy methods, practices and appliances, and effective in securing to dairymen increased profits, by gaining more equitable rates of transportation, better care of the product in transit, and less oppressive charges generally in marketing, we, the undersigned, beg to call a meeting of dairymen in the Produce Exchange, corner Clay and Davis streets, San Francisco, on Thursday, May 18th, at noon.

We urge upon all the dairymen of the State to join us at the above named time and place for the purpose of organizing a dairymen's association, in order that we, as dairymen, may act together for our good and that of the industry in which we are engaged.

We need not say that we heartily approve of the above article, or that we will do what we can to make it a success, but we now call upon the dairymen in all parts of the State to take hold of the matter in good earnest, and thereby open the door to greater development of their business generally, and greater profits to all engaged in it.—*Sac. Record-Union.*

Horticulture.

Orange Growing in the South.

We find in our exchanges from the Southern States some points on orange cultnre which may be suggestive to our growers. At the late meeting of the "Fruit Growers' Association of the Gulf States" there was a discussion on orange growing and several questions were put to Mr. S. F. Gard. A member asked if he considered the sour tree any hardier than the sweet seedling, and whether a tree budded or grafted improved the fruit? Mr. Gard replied the only advantage he could discover was that the sour orange did not possess so much tap root, besides had more lateral roots, and perhaps from this reason was better suited to our low alluvial lands; as to hardiness the same degree of cold that would kill the sweet orange would destroy the sour orange also; he also stated that the oldest trees in the State are sweet seedlings, one of which on his place on the Latourche was planted in the year 1765, and some 20 trees, also sweet seedlings, over 50 years old, producing from 3,000 to 5,000 oranges yearly to each tree.

Another member remarked that it has been claimed by many persons that the sonr orange is less liable from attacks of the disease known as the sore shin, which attacks the tree just above the collar and causes its death. In reply Mr. Gard said that no tree in his orchard had snffered where the surface roots were near the top of the soil; he considered that it was caused entirely by deep planting; has examined thousands of trees and fonnd in every case the tree had been planted too deep, and after witnessing the destruction of nearly 400 trees, set in holes dug but six inches, he had adopted the plan of placing the roots immediately on the surface, raising a mound of earth around them and throwing the balance of the soil to the tree with a turning plow. [Note, this mode of planting refers to alluvial lands; on sandy soils shallow holes should be dug.] Trees are sometimes killed by the attacks of ants, of which there are two species, white and black; the former coat themselves with a glutinous substance and eat through the bark into the woody portion, and at times ascend the tree and attack the limbs.

Ashes a Remedy.

The remedy which carries death and destruction to this pest and which has never failed is unleached ashes. It will destroy many and drive the balance away. A member advocates the use of concentrated lye, eight boxes to a barrel of water, and applied with a fountain pump; the latter will also eradicate the moss from trees and leave the bark clean and healthy; it has been tested by a member of this association, Alfred E. Lewis, of West Pascagoula, Miss. The association recommended the following species of the Creole orange:

1. Tobasco, large, round, sweet, excellent.
2. Lafonrche, large, round, sweet, excellent, deep yellow flesh.
3. Havana, large, conical, sweet, excellent.
4. Sicily, small, sub-acid, early and keeps well.
5. Mandarin, small, excellent for amateur culture. The above are seedlings of the imported fruit, acclimated in Louisiana, except the Lafonrche, which is a chance seedling, found by Mr. Gard on the coast of Terrebonne. The Brazilian was then recommended by Alex. McConnel as an excellent fruit, and the tree free from thorns.

Improved Shipping.

The Florida *Union* remarks that tho orange shipments this year evidently prove that new comers are making a bnsiness of orange cnlture, and further, that they have determined to make it a perfect snccess. Tho fruit is more carefully packed by the shippers, and evidently has been put np with more than ordinary care, with the view of having as little loss as possible while on its way to the North. Florida oranges always command the best prices.

A Savannah paper says: "We noticed on the wharf of the steamship *San Salvador* Saturday several packages of Florida oranges, put up in neat wooden boxes made for that purpose. They are similar, though better, than those in which lemons and Messina oranges are brought to this country. This mode is a great improvement on the old way of shipping the fruit."

A Sharp Judge.

A writer in *Our Home Journal* writes: Many are planting seed to supply the demand for trees. For this purpose the Bookter orange, grown here and unsurpassed for size and flavor, are in great request. My distinguished friend, Judge Sones, has a peculiar method for propagating the orange. He sets the trees in his nnrsery at one and two years old; the purchaser, before packing them up, nsually clips off the tap root. This the judge immediately plants and in 12 or 18 months has a new crop to dispose of.

The Vineyard.

American Vines for Europe.

As is generally known to our viticultnrists, the French vine growers are importing large quantities of our vine stocks to secnre something proof against the phylloxera. Their experience may prove valnable to ns in case we have to resort to a similar method of meeting the insect. The efforts of Prof. Riley have made the Missonri department of agricultnre a sort of headqnarters for information concerning the French doings. From the forthcoming report of the Missouri department we are enabled to quote as follows concerniug the American varieties which are now being exported.

The Concord Failure.

The report says: The Concord, so distinguished for its vigor and productiveness, and favored by its low price and ease of making roots, that recommended itself for introduction; the size and handsome appearance of its fruit would also seem sufficiently satisfactory; but the European taste is ntterly opposed to its foxy flavor (*gout de cassis*); moreover, the snccess with this variety has been variable, and in some instances unsatisfactory. In some places, from causes yet unknown, the Concords planted there suffered from yellows, their leaves became cnrled, sunburned, and some even lost their foliage, so that many influential viticnlturists pronounced against this variety; some from interested motives, perhaps. Be this as it may, certain it is that the Concord has fallen into disfavor, and the demand for this variety has almost ceased.

The Clinton,

Of which the roots are considered to be quite resisting to phylloxera, and of which the fruit has less or no foxy taste, while the color and alcoholic strength of its wine seems qnite satisfactory (red wines being far more appreciated and in demand in southern France that white wines), became the favorite. Its rampant, rapid growth, in most any soil, gave strong hopes of success. Aided by their low price and great ease of rooting, hundreds of thonsands of Clinton cnttings were imported and planted. And the success of this variety in some localities is very astonishing. Mr. F. Cazalis, a distinguished horticulturist at Montpellier, France, editor of the *Menager Agricole*, obtained from one single Clinton vine, three summers old, 85 bunches, weighing six kilo 250 gram (over 14 pounds). Mr. Laliman, of Bordeaux, in a letter addressed to Mr. Fabre, says: "The Clinton is very productive, I can affirm that even without admixture it makes a wine without any particular (unpleasant) taste, is richer in color and in alcohol than our (French) kind, matnres in a very short time and is snperior in every respect. The wine I just obtained from the Clinton convinces me more than ever that this variety is destined to make a complete revolution in our grape culture, even in non-infested localities."

Nevertheless, I learn that the wine made there from Clinton is far from satisfactory to good, impartial judges; and in a report jnst published by a special committee (Mr. Louis Vialla, chairman) appointed by the agricultural sociéty of Hirault, to examine the American vines planted in different vineyards of southern France, we find already the complaint that "the Clinton develops much more in length than in strength, that its branches ramble indefinitely, while its trunk lacks vigor, which is a great inconvenience, especially for grafting." For its own fruit they do not recommend it either.

The Taylor.

The French vineyard proprietors have therefore lately turned their attention to the Taylor, which is, in character of the roots especially, equal to the Clinton, but superior in vigor of growth, less rambling, with heavier cions and stronger foliage. It is neither very fertile nor its fruit admired, but it is only with a view to serve as grafting stock that the Taylor cuttings are imported and planted. For this purpose, however, our wild Cordifolia might answer just as well—I believe that they would be even better; and quite recently experiments are being made with these and also with the Mustang and Post Oak of Texas, which may prove well adapted to the sandy soils and warm climate of southern France.

But after all, the system of grafting vines on a large scale is as yet bnt an experiment. There are now, it is trne, some grape nurseries near Montpellier, where 500,000 and more grafted vines can be seen growing, Aramon, Terret, Carrignan, Mourastel, Alicante, etc., grafted on Concord, Clinton, Taylor and others; the American stock making the roots, and bearing on its tops the graft of their favorite French varieties, with great promise of success; but, much as I may desire its fulfillment, I cannot conceal my doubts. Grafting the vine above ground, by inarching or approach, is a far more difficult and uncertain method than most people imagine; and below the surface of the soil the difficulty arrives, how to prevent the graft from making its own roots.

The Horse.

Rysdick's Hambletonian.

The death of this noted horse calls for more than a mere mention, and we give space for the following from the N. Y. *Spirit of the Times:*

This greatest of trotting sires died at Chester, Orange county, early on the morning of March 27th. We simply respond to a universal demand by reprinting, in this edition, the picture of him which was published in our edition of Nov. 27th 1875; and while we reproduce, on this page, in the main, the description then given, in another part of the paper we present a more elaborate article on the departed hero. He was bred by Jonas Seely, of Chester, Orange county, N. Y.; foaled May 15th, 1849; got by Abdallah, son of Mambrino, by imp. Messenger. Abdallah, his sire, was ont of Amazonia, who was first claimed as by Messenger, then by a son of Messenger, bnt it is now generally conceded that her blood is entirely unknown. She *may have* been got by a son of Messenger, bnt the evidence upon which this story rests is too flimsy to carry with it any weight. Bnt, notwithstanding her unknown lineage, she gave to the world, in her son Abdallah, one of the greatest horses that ever trotted the American soil—"rough to look at, but king among stallions." Hambletonian's dam was by imp. Bellfonnder; second dam by Hambletonian (son of Messenger); third dam by Messenger; which gives him one direct cross of the highly prized Messenger blood on the side of his sire, and a double cross on that of his dam. The dam, with the colt (subsequently Rysdick's Hambletonian) by her side, was sold by Mr. Seely to Mr. W. M. Rysdick, of Chester, for $125. When he was two years old four mares were bred to him, from which resulted three foals, one of which afterwards became famous nnder the name of Alexander's Abdallah, the sire of Goldsmith Maid. It is worthy of remark, in this connection, that this greatest of all trotting mares should have been begotten by a three-year-old colt, and he, in turn, by a two year-old colt. At three years old he was taken to Long Island, and nnderwent a few months' training as a trotter, but the promise which he showed npon the track was not deemed snfficient to warrant a continnation of the training, although hes howed a trial of a mile in 2:48, and he was retired permanently to the breeding stud. Up to the year 1854 his service fee was $25 to insure a foal, but it was then advanced to $35, at which it was kept to the year 1863, when it was advanced to $75, and owing to the fame which his get began to acquire about this time, his services were in great demand at the increased price.

In 1865 the fee was placed at $100, and in the year following at $300, during which two seasons he was permitted to serve the nnprecedented nnmber of 410 mares, from which there were produced 276 foals. His fee was then fixed at $500, at which it remained up to his death. During the entire season of 1868 he was retired from the stud, so that there were no sons or daughters foaled by him in the year 1869. Since that time he has been limited, each season, to a very small number of mares, and, up to 26 years of age, was active, strong and vigorous. He has sired more foals, perhaps, than any other stallion of any age, the number reaching over 1,225, which is conclnsive evidence of his wonderfnl constitutional vigor. In a pecuniary sense he has been a wonderful success, his services aggregating over $100,000. No less than 58 descendants of this famous old sire have made public records of 2:30 or better, 21 of which are in the first generation. Of the remaining 37 there are 32 grandsons and daughters, and five that are one generation further removed from their distinguished progenitor. Of those in the second generation 29 are descended in the male line, two in the female line, and one by both branches. Of the 63 horses that have made records of 2:23 or better in harness, 21 were his descendants, and of the 10 that have dropped into the 2:18 class, he claims just one-half—a showing from the records that clearly entitles him to stand pre-eminent as the great progenitor of trotting horses. He was a horse of great snbstance, but at the same time without a particle of grossness. His bone, though heavy, was of most excellent form and apparent fineness of textnre. His mane was originally light, the hairs perfectly straight, but not a vestige of it remained. His tail was once very heavy, but it also grew thin with age. In color he was a rich mahogany bay, with a small star, and two white ankles behind, but below them the coronets were dotted with black spots, and the hoofs mainly dark. His head was large and bony, inclining to what is known as the 'Roman nose' type; jowls deep; eyes large and prominent; ear large; neck rather short, and heavy at the throatlatch, but thin and clean; shonlders very deep, oblique and strong; withers low and broad; back short; coupling excellent; croup high, and enormous from point of hip to hock; broad, flat, clean legs, with tendons well detached from the bone; hock well bent rather than straight; pasterns long and elastic, and hoofs splendid.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

Stanislaus County Pomona Grange.

Editors Press:—The Stanislaus Pomona Grange met at Grange hall, Modesto, on the 1st of May, and continued in session two days. Worthy Master H. W. Browse in the chair. Representatives from all the Granges in the county except one were present. Among the questions discussed was that of a Centennial celebration at Modesto. The following Committee on Ceutennial was appointed to take whatever action was deemed proper by them in behalf of the Patrons of Stanislaus county with regard to the celebration: H. W. Browse, J. D. Reyburn, C. R. Calender, R. R. Warder, W. L. Fulkerth and V. E. Bangs.

On the evening of the first day the fifth degree was conferred on Bros. Garrison, Turner and Roe, and Sister E. J. Turner. When this was done, Pomona's feast was again spread and again did the sistera prove their skill in arrangement and decoration. Past Master W. J. Campbell, of Atlanta Grange, was with us during the greater part of the exercises.

The Worthy Master submitted the following propositions, which were referred to appropriate committees: 1st, Provisions for the better working of the State Grange; 2d, Proposition in regard to granting the privilege to a Pomona Grange to open in the fourth or fifth degree at its option; 3d, Re-establishment of a State Business Agency; 4th, Interest charged by Grangers' Bank of California; 5th, Grange incorporations and their relations to the Granges, more especially in reference to wheat and grain bags. The committee to whom was referred the second proposition reported the following resolution, which was adopted:

Whereas, The National Grange in defining the privileges of a Pomona Grange confine their business meetings to fifth degree alone,

Resolved, That the several members of the State Grange of California are hereby instructed to use their influence to have the clause referred to stricken out.

The following standing committees were announced: On Finance, A. S Fulkerth, S. P. Baily, Mrs. V. E. Bangs. On Music, A. H. Elmore, Mrs. Julia Service, E. Hatch. On Legislation, C. R. Calender, J. D. Spencer, Mrs. J. D. Reyburn. On Education, V. E Bangs, Mrs. L. J. Browse, John Service. On County Affairs, S. M. Gallup, Mrs. Maria Calender, Jas. Kinkead. On Good of the Order, J. D. Reyburn, Mrs. C. Fulkerth, R. R. Warder. On Labor, W. L. Fulkerth, E. McCabe, Mrs. M. E. Bailey. On Publication, H. W. Browse, V. E. Bangs (by vote of the Grange).

The usual interest and earnestness was shown in the discussion of the various questions considered. The next session will commence on the first Monday in August next, at 11 o'clock A. M. Vital E. Bangs, Sec'y.

Modesto, May 8th, 1876.

The Warehouse and Business Association at Martinez.

This enterprise is being prosecuted with all diligence and success. We learn from the Contra Costa *Gazette* that there was a very full attendance at the first annual meeting. After an interesting address by the President, on motion of Nathaniel Jones, the stockholders of Alhambra Grange were requested to nominate of their number three candidates for the Directory; those of Pacheco Grange, two; and those of the Danville Grange, two.

In accordance with the instructions the Secretary announced that John Strentzel, James Kelley, James McHarry, Alexander Boss, F. M. Warmcastle, John Larkey, George P. Loucks, James M. Stone and R. O. Baldwin had received 498 votes each in the election, and they were therenpon declared elected as the Directors for the ensuing year.

On adjournment of the stockholders' meeting, John Strentzel, James Kelley, James McHarry, Alexander Boss, F. M. Warmcastle, George P. Loucks, John Larkey and J. M. Stone, Directors elect, being present, the Board organized by the election of John Strentzel, President; F. M. Warmcastle, Vice-President; George P. Loucks, Secretary; and John Larkey, Treasurer.

On vote of the Board the bonds of each of the officers was fixed at $1,000.

An assesment (being the third) of 10 per cent. on the capital stock, was levied by order of the Board, payable in gold coin on or before the 18th of May, 1876.

By vote of the Board, Directors Strentzel, Loucks and Kelley were appointed a Committee on Construction, and Directors Stone, Larkey and Boss an Auditing Committee.

D. N. Sherburne, J. W. Jones and James McHarry were constituted agents of the Directors for collection of assessments.

The Board then adjourned to meet on Monday, May 15th.

Notes from Fresno County.

Editors Press:—Last week I spent a most pleasant evening with Brother Burns, P. M. of Garretson Grange, whom you will recollect as being with me at the State Grange. He showed me a field of wheat sowed on ground that had never been plowed. A more rank, splendid growth I have seldom seen. He estimates that it will yield 40 bushels per acre. A neighbor on land adjoining raised 40 bushels per acre three years ago in the same way.

Crops of all kinds are in the finest condition, and bid fair to yield enormously. I think that I can safely say that we have a way demonstrated by which we can depend for a certainty on a heavy crop every time we sow grain. The plan is to summer fallow. Wait till a rank growth of vegetation covers the ground—till all the foul seeds have begun to grow—say the middle of February, then start the gang plows, soil the land by plowing in the immense growth of herbage. Let it lie through the summer, then, with the first rains, sow and harrow in the grain. I think most years it will also make a good succeeding volunteer crop.

I Stand Corrected.

Garretson Grange—than whom no better Patrons can be found in our country—by a vote of the Grange requested me to state more in detail about irrigating facilities in our county. They particularly wish to have it understood that all the irrigating water of our country is not, nor can it well be, monopolized by any one company. Kings river carries, during May, June and July, ten times as much water as has been appropriated. But what I wished to have understood is that in the dryest part of the year, say about October 1st, that all the water has been appropriated. Knowing that my grapevines would need constant water, I joined with my neighbors of Kingsbury, and we paid $6,000 for 24 feet of water, with annual assessment of $25 per foot. In addition to this, and of greater expense, we had to dig 20 miles of ditch to convey the water to our farms. Others can obtain water from the same company at but a moderate advance above what we paid. But here are other chances that are perhaps better. Here are 50 square miles of the best of farming land with irrigating rights prior to, and above the monopoly. This land with water can be bought from $10 to $40 per acre. Here are also 50 square miles of the finest alluvial bottom land along Kings river, no hardpan and water within from one to ten feet of the surface. Corn like that of the Mississippi bottoms, watermelons of 60 pounds weight, and everything else of the same gigantic growth can be produced here without irrigation.

Big Melons.

Last summer, when I was at work on our ditch, I thought one day that I would treat "the hoya" to watermelons. So I rode over to a patch that I had heard of on the river bottom. I told the proprietor that I had come for some melons. He looked at me for a moment, then answered, "You mean *a* melon, if you are going to carry it on your horse." I thought of the innate parsimony that would suggest taking a single melon to a acre of hearty men, but only answered, "I expect to pay for what I get." Said he, "Don't reckon I'll charge you much; come out and see them." I went out into the patch, and saw them, like monstrous pumpkins lying all over the ground. In weight they would range from 20 to 40 pounds, and some of the largest grown during the year I was assured reached the enormous weight of 60 pounds. I didn't try to take even *a* melon with me, but went back and told the boys what I had seen, and was answered with, "O pshaw, that's nothing; we have been going there for melons for the last two weeks. There are lots of such patches along the river bottoms." W. A. Sanders.

Big Dry Creek, Fresno county, April 24th.

From the Granges.

Pescadero Grange.

Editors Press:—As no one saw fit to make known through your valuable paper what Pescadero Grange is doing in the way to further the interest and to extend the social features of our Order, I concluded to send a few items, which may not be uninteresting to our sister Granges elsewhere. The first thing after receiving the Press is to look for the letters from the Granges, for I find much in them that is interesting to me. But I must say something about Pescadero Grange. The future prospect of our Grange never looked brighter. Our meetings are well attended by the members, who have never taken more interest in the Grange than at the present time. At our last meeting the fourth degree was conferred on a class of five—two brothers and three sisters. So you will see that we are moving on in the right direction for the good of the Order. It was decided by Pescadero Grange to celebrate the first of May by giving a picnic, which was held in Bro. Weeks' grove, and being determined to make it a success, great stir was made in the kitchens, where might be seen farmers' wives and many who were not farmers' wives, all busily at work preparing the substantials which are so tempting just about dinner time. You may be assured when the ladies undertake a thing of this kind there will be no such thing as fail. At half-past ten the Patrons and friends began to assemble at the hall and soon after 11 o'clock the Grange with regalias was formed in line and started for the grove, headed by a cornet band composed of men and boys belonging to our town. We found on arriving at the grounds that many friends had already arrived there, who had come to spend this beautiful Mayday in social recreation along with the Grangers. The little folks, too, were there in large numbers, with souls overflowing with happiness, all eager for the fun that was in store for them.

The programme of the day was, first, music by the band; then a greeting song by the choir; then prayer by the Chaplain; then more singing; then followed a poem by Rev. G. W. Beatty, and an address by Bro. W. J. Thompson.

Soon dinner was announced, and the well-filled tables were surrounded by a multitude of hungry folks, where we did our level best to get on the outside of all the good things that was spread out before us, but had to surrender before the feat was accomplished. There is one thing certain, the ladies away down here on the coast know just how to prepare the feast on such occasions.

Several of the Brothers and Sisters of Crescent Grange were here to join with us in celebrating the day with social greeting.

In the midst of all this pleasure, it is with feelings of sadness that I am compelled to chronicle the death of a lovely daughter of our Worthy Chaplain. Belle, youngest daughter of Brother and Sister Corey, a bright and intelligent girl, aged fourteen, was taken sick several weeks ago, and, notwithstanding all that could be done for her, she continued to get worse, and was finally taken to San Francisco for treatment, accompanied by an older sister who went to nurse her. For a time it was thought she would get well. But, alas! that was not to be the case. Her parents received the sad tidings that the angel of death had been there and borne her sweet spirit home to its God; and with sad hearts they went to bury their daughter, who had been such a precious jewel in their household.

The agricultural outlook is very good indeed. I have had occasion to ride over a large portion of this county, and everywhere I hear cheering reports of farmers and dairymen. Early potatoes, in some places, have proved a failure owing to the blight. Patron.

Pescadero, May 2d.

Confidence Grange.

Editors Press: — Confidence Grange, of Guadalupe, though small in numbers, and most of whose members are of limited means, is steadily though quietly working on, accomplishing some good for themselves and for the beautiful Santa Maria valley.

Many of its members have started in to raise a wind-break of gum trees across the valley, along their west lines. If this work was universal all over the valley it would, in a few years, be one of the most lovely garden spots in California. The fertility of its soil is unsurpassed. The surrounding scenery is grand and beautiful, and the only objection that can be raised against it is the strong winds from the ocean which prevail for a few months in summer, as they do in all other large valleys on the coast, drying up the moisture that is in the soil and rendering haying and harvesting rather unpleasant.

This Grange has also just bought a quantity of the white sugar beet seed and distributed among its members, with a view to test the adaptability of the soil in different parts of the valley to the production of beet sugar, having the promise of foreign capital to establish a sugary, should the soil prove to be suitable.

Farmers never had fairer prospects for large crops than they have at the present time. Estimates range from 35,000 to 100,000 tons of produce to be shipped from this valley this season, and the farmers are in a quandary about getting it to market.

The nearest landing place (Point Sal) is some 15 miles from the center of the valley, and there are not teams enough in the valley to haul it there in six months. We must have a nearer landing or a railroad, but it is too late for either this year.

The letter of Bro. Miller, Master of Santa Maria Grange, published in the Rural Press last week, will have, I fear, a demoralizing effect upon the many lukewarm members of the Order, and will certainly be used as a powerful weapon by our enemies. I am a little surprised that he didn't give the real cause of the disaffection, which, as I understand, was the starting of a store, which resulted in the withdrawal of several members at the time. A large credit business was done, the money panic came on and the concern was closed up by the sheriff, and the stockholders lost what they put in. This was the straw that broke the camel's back. This should be a warning to other Granges who contemplate entering into the mercantile business to strictly adhere to the anti-credit plank in the platform of the Order.

Very few farmers feel as if they can lose half a day to attend Grange, and when they go they are, as a rule, very diffident and unaccustomed to speaking in public, and rarely speak to offer suggestions for the good of the Order, and consequently the meetings soon become monotonous and uninteresting. Many joined the Order, not for love of its principles, but in anticipation of reaping immediate pecuniary gains, and were of course disappointed. These are the principal causes for the disaffection of so many members. If the principles and precepts of the Order were strictly adhered to and faithfully carried out there would be no trouble.

We must make our meetings more interesting and profitable by discussing agricultural topics, by having readings of original or select pieces and other literary exercises. Farmers should experiment more and report the result of their experiments in the Grange. Patrons should ever be on the alert to project and execute, as far as possible, all local needs and wants for the advancement of the interests of the farming community, such as opening up better facilities for transporting their produce to market, getting more manufactories established, such as beet sugaries, flouring mills, woolen factories, tanneries, etc., so as to make a better home market for their produce and to cheapen their supplies. By uniting their efforts for the general good, each will in due time reap his reward.

James Morse, Jr., Master.

Guadalupe, Santa Barbara Co., May 1st.

Golden Gate Grange.

Editors Press:—It gives me very much pleasure to report that on the 3d inst. I organized, in this city, a Grange of the Patrons of Husbandry, which will bear the above shining name. The Grange is composed of Patrons who joined the Order at their respective Granges in the country, but whose business has called them to reside in this city.

Heretofore these brothers and sisters have been deprived of the pleasure of meeting in the Grange except at a heavy expense, and the Golden Gate Grange was organized for the purpose of giving these Patrons an opportunity to meet each other and cultivate a social and fraternal feeling among them. It will also supply another want, that of furnishing members of the Order visiting this city a place where they can spend an evening in the Grange here. We met for the purpose of organization at the residence of Bro. J. D. Blanchar. The attendance was large, including several brothers and one sister from the interior. After signing the charter lists, and electing officers, the company descended to the dining room and partook of a most bountiful "harvest feast," prepared by good Sisters Blanchar and Reed. It is hardly necessary to write that an hour was most pleasantly spent in discussing the good things prepared by them. After the feast, assisted by Bro. W. L. Overhiser, of Stockton, I installed the newly elected officers, (a list of which will be found in another column.)

May Golden Gate Grange, thus pleasantly ushered into existence, be as prosperous and pleasant in the future as it was at its organization. T. H. Merry, State Deputy.

San Francisco, Cal., May 8th, 1876.

Harvest Feast at North Butte.

Editors Press:—Believing that you take not only an interest but a pleasure in receiving a word from the rural districts, I will venture to give you an item. The Patrons of Husbandry had their harvest feast on here on Saturday last, 29th of April.

The day was fine. A shower of rain on the previous evening gave to all nature an attraction which was uncommon and resistless. The gathering together of the host began at an early hour. Nearly all the members were present, besides a goodly number of visitors from neighboring Granges. There was also a lovely collection of little hopeful Grangers on the ground, who partook of the festivities of the day, but were excluded from the council chamber.

The fourth degree was conferred by our Worthy Master on two young ladies, and the ceremony gave additional charm to the occasion. The business of the day being dispatched the doors were thrown open and the feast of good things, which was lavishly spread on two long tables decorated with flowers, was indulged in by all present. A great man once remarked that a lady should never be seen eating. He could not have been a Granger, for a Grange without the ladies would be the quintessence of a bachelors' hall. After a few hours of friendly intercourse and a social dance all sought in peace their quiet homes, hoping that such occasions may not be too far between.

S. P. F.

North Butte, Sutter Co., May 1st, 1876.

Election of Officers.

Golden Gate Grange, San Francisco.—Election, May 3d: J. D. Blanchar, M.; I. G. Gardner, O.; A. W. Thompson, L.; J. R. Reed, S.; Frank McMullen, A. S.; T. J. Brooke, C.; Frank Cressy, T.; Ferd K. Rule, Sec'y; J. P. Jones, G. K.; Mrs. M. J. Blanchar, Ceres; Mrs. A. W. Thompson, Pomona; Mrs. S. M. Gardner, Flora; Mrs. J. R. Reed, L. A. S.

In Memoriam.

The following resolutions were adopted by Pomona Grange, No. 216, at the regular meeting, held April 29th, 1876:

Whereas, Pomo Grange has lost a beloved member, Andrew Brown, who passed to a higher life on the 3d of April; and

Whereas, He was a good and efficient member of our Grange, an honored and respected citizen, a kind brother and affectionate son; therefore be it

Resolved, That Pomo Grange tender to the bereaved family our heartfelt sympathy.

Resolved, That a copy of these resolutions be spread upon the minutes of the Grange.

Resolved, That a copy be sent to the family of the deceased and one to the Pacific Rural Press for publication.—[R. E. Madden, Ed Y. Jones, Sec'y.

Agricultural Notes.

California.

ALAMEDA.

Crop Values.—Washington *Independent*, May 6: In every direction that one travels over the level plains of this part of our county at present, mowers are seen busily at work cutting down the green grass, or swaths of fresh cut hay are noticed lying stretched across the fields, or small stacks of hay are observed, like big bee hives, spotting the clean looking meadows, and all indicating an ample supply of good food for every kinds of stock this year. The prospect is cheerful in this respect. And not less so is the outlook of the grain fields that lie interspersed on all sides among the fields and meadows just described. Other counties, too, all over the State, are generally reported to be in an equally favorable condition. Thus, 800,000 tons may be set down as a fair estimate of the hay product for California this season. Last season it was over 750,000. At the low estimate of ten dollars a ton, here is $8,000,000 of value in this one article alone. The extent of land sown in wheat is judged to be 2,500,000 acres, which, at an average of 18 bushels to the acre (last year's average) would give 45,000,000 bushels for the State. Last year's product was over 30,000,000. Now, at the price of only $1.50 per bushel, the aggregate value of the wheat crop would reach $67,500,000. In other words, the probable value of these two crops alone in California this year cannot fairly be put at a lower figure than $75,500,000.

COLUSA.

Centennial Grain.—*Sun*, May 6: The collection of Centennial specimens gathered the first of May, and before, and which have been accumulating on the veranda of the *Sun* building for the past week, makes even old Californians open their eyes. These specimens will perhaps all be dry enough to pack next Monday. As these samples will not show fully developed heads, we shall try and have a collection of heads and of wheat to send on some time next month. To this end we request farmers to gather 40 or 50 heads each, and send them in to us as soon as fully matured, both of wheat and barley; and, also, about a pint each, of nice plump, clean grain. Of course, it will not be worth while to wait for threshing to get this, as so small an amount can be rubbed out with the hands. We have received the following since our last issue: E. Potter, wheat and barley; P. F. Dolan, barley and oats; J. R. Totman, wheat, barley and oats; W. J. Reid, wheat, oats and rye; A. Goodman, oats; E. McDaniel, wheat, barley and oats; Isaac Howell, Proper wheat; F. Quint, barley;] John Sites, oats; Stephen Cooper, wheat, oats and barley; Gideon Geil, wheat and barley; Thos. Copperthwaite, club wheat; John Hannah, volunteer Proper; W. K. Estill, wheat; Hugh Logan, barley and oats; J. S. Black, wheat; Thos. Phillips, barley and wheat; J. Simmons, oats and wheat.

Mr. Totman's Samples.—*Independent*, May 6: J. R. Totman called us out on Tuesday to look at some specimens of grain that he had brought in to forward to the Philadelphia exposition, and well will it deserve a conspicuous place in the mammoth show. He had two specimens of the Proper wheat. One was five feet ten inches high, with well developed heads and substantial stalks. The other came from a field that he mowed down on the 13th of March, and after it had jointed. This wheat, though mowed close to the ground only 48 days before, was five feet six inches high, with very large, full heads and sturdy stalks. It ought to yield 40 bushels per acre. Mr. Totman also had a bundle of tame oats that stood five and a half feet high and was very fine, well headed and thrifty stalks. A bundle of barley was five feet and nine inches tall. A bundle of wild oats seven feet four inches tall was magnificent; though such tall oats does not make such good hay as when cut short. But what most pleased us was a bunch of alfalfa just 30 days old. It was three feet two inches high. What will our Eastern friends say when we tell them that a clover, as fine as their red clover, will grow three feet high in one month, and that in a favorable season four or five crops—good heavy crops, too—of excellent hay is often cut from the same piece of land? This alfalfa makes a fine quality of hay, fully equal or superior to timothy, and it will unquestionably become one of the important crops in this country. There are few grain growers in the United States—we might say, with equal propriety, in the world—who will make as good showing at the Centennial as our friend Mr. Totman.

CONTRA COSTA.

Warehouse and Landing Co.—*Gazette*, May 6: The movement among the farmers here to secure a landing of their own culminated in the organization and incorporation of the "Point of Timber Warehouse and Landing Co." the capital stock being $10,000, divided into 400 shares of the value of $25 each. At the election of directors the whole stock was subscribed. The following were elected directors to serve for the ensuing year: F. Hoffman, G. Lipman, Geo. Cople, G. Huey, G. W. T. Carter, E. D. Grigsby, M. Berlingen. F. Hoffman, President; G. W. T. Carter, Secretary; G. Lipman, Treasurer. The Point of Timber landing has been purchased from Clayton & Co., and will be under the charge of Mr. E. D. Grigsby this season.

FRESNO.

The Water Supply.—*Expositor*, May 3: From J. H. Bethel we learn that the water in the various streams on the north side of the river is falling quite rapidly. The Fresno river is so low that it scarcely affords a good ditch head. In consequence workmen have been sent up to turn Snow creek and the Chiquito Joaquin into the Fresno. Feed in the mountains is excellent and stock of all kinds is doing well. The snow is all off of the lower mountains, but in the higher Sierras it will last till the first of July. A few bands of sheep are already being driven to the mountains.

MONTEREY.

Agricultural Society.—*Democrat*, May 6: At its annual meeting Saturday last the Monterey agricultural fair association chose for the ensuing year. J. D. Carr, President; C. S. Abbott, 1st Vice Prsident; J. R. Hebbron, 2d Vice President; Wm. Vanderhurst, Treasurer; U. Hartnell, Secretary, and as Board of Directors, Messrs. Porter, McGarvey, Ball, Graves, Quentel, and Iverson.

NEVADA.

The Fruit Crop.—Grass Valley *Union*: It is pretty well settled that there will be a large fruit crop in this section this year. There will be even a good peach crop. This can now be easily sent to market, and the market for it must be extensive. San Francisco ought to be part of our market, and the valley farmers and fruit raisers ought to be purchasers of mountain fruit, because the mountain fruit is so superior in flavor to that grown in the valleys. We understand that arrangements will be made by experienced men for shipping fruit from Grass Valley. These shippers will have a trademark and will send out nothing but the best. There will be no putting big apples on the top of the package and little and mean fellows underneath, as has been too often the custom, but the packages will average all through and all the fruit sent out will be good. When the plan is fully matured we will say more about the matter. Meanwhile cultivate fruit trees—there will be a market for all the fruit.

SAN JOAQUIN.

Imported Grapes.—*Independent*: W. B. West of this city yesterday received the bill of lading of a large quantity of rooted cuttings of raisin grapes, which he has imported from France through Messrs. Transom Freres, nurserymen, Orleans. There are 700 cuttings of the following varieties: Galleta, Xeries, Uva larga, Uva de gato, Uva Salomana, Ximenes, Muscatello, Marbeli, Passarilla blanca, Ricana, Mulvaza larga, and Granaya. These were imported direct from Malaga by Messrs. Transom Freres, who also shipped in the same invoice other plants as follows: One hundred *Cedrus deodora*, three years old; 100 *Chamverops excelsa*, one year old, and 100 *Cryptomeria elegans*, two years old. The invoice will probably arrive in a short time, and it is to be hoped they will be found in good condition when they are unpacked. It exhibits commendable enterprise in Mr. West to import improved varieties of vines and trees direct from Europe, and it is through such efforts that the horticultural interests of the State are advanced and benefited.

Garden Pests.—We hear of the sudden appearance in this locality of a new garden pest that comes out at night and lays waste every green thing in its reach. Is is a species of snail without a shell, and is described as a very slimy, gray, repulsive looking animal that chooses moist places, under wet boards, etc., to retire during the day and sallies out at night.

STANISLAUS.

Sacks and Shipping.—*Valley News*, May 6th: There is some anxiety as to the matter of procuring grain sacks for the immense harvest in prospect. It is estimated that there are 75,000 acres of grain that will legitimately find a shipping point at Hill's Ferry. Twenty bushels to the acre is prospectively a low estimate as the average yield; many large fields will double that quantity. As the wheat crop is generally good throughout the State, the demand for sacks will be far greater than during any former season, and will probably be high. It is a matter that dealers and others interested should look to as early as possible. The question of transportation for the large grain crop of the west side is an important one just now. There never was a time when so large a demand was made for boats for transporting the yield of this vicinity as will be called for the coming season. It is probable that all the steamers and barges usually employed on the Sacramento river will be required there, and the vessels that at present belong to the San Joaquin trade will not be able to move a fifth of the crop. There is a chance for investment in the steamboat line that will pay a handsome profit this summer.

TUOLUMNE.

Fruit Crop.—*Independent*, May 6: The present season bids fair to be recorded as one of a bounteous harvest, and an abundance of fruit. We have examined several of the principal orchards, and in what is noticeable we find that there will be an abundance of winter apples. The pear crop will be above the average. Plum and cherry trees, in most respects, will produce a good crop, should no blight destroy the fruit which has set. They will have as much or more than they can bear up without artificial supports. The peach crop was injured to a considerable extent by the heavy frosts on the 30th and 31st ult., although the young trees which have been bearing fruit for one or two years will yield better this season than the old. Old peach trees are not profitable, as a general rule, after they have been in bearing for five or seven successive years. In this section the apricots were totally destroyed by the frosts.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, May 10th, 1876.

There has been rather more trade in Wheat during the week and several cargoes have been filled, but the sales are at a greatly reduced figure.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

Range of Cable Prices of Wheat.

	Cal. Average.			Club.		
Thursday	9s	7d@9s	11d	9s	10d@10s	5d
Friday	9s	7d@9s	11d	9s	10d@10s	5d
Saturday	9s	6d@9s	10d	9s	10d@10s	3d
Monday	9s	6d@9s	10d	9s	10d@10s	3d
Tuesday	9s	6d@9s	9d	9s	10d@10s	2d
Wednesday	9s	6d@9s	9d	9s	10d@10s	2d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.			Club.		
1874	12s	7d@12s	10d	13s—	@13s	3d
1875	8s	11d@9s	2d	9s	2d@9s	6d
1876	9s	6d@9s	9d	9s	10d@10s	2d

The Foreign Market.

According to a London dispatch, dated May 9th, the *Mark Lane Express* says:

"There has been no noticeable change in the aspect of the country. All vegetation is making slow progress, owing to the cold winds. The season in Scotland is much behind hand, and adverse weather has caused seeding to be unusually protracted. In trade, a tendency to increased activity has been apparent, millers buying more freely and speculators showing considerable interest in the present course of prices. Transactions for the Continent at our local markets have been only of a tentative nature. Some small quantities of both English and foreign Wheat have been taken for export. The export demand for Oats having abated, prices declined slightly. Supplies of maize have been sufficient to check any advance. Continental advices, except from France, are satisfactory as to the condition of crops, although the want of sunshine has been felt. Navigation has not yet been resumed at St. Petersburg, and prices of Wheat are very high both there and at Odessa."

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Apr. 19.	Week Apr. 26.	Week May 3.	Week May 10.
Flour, quarter sacks	25,134	21,026	34,703	21,465
Wheat, centals	89,159	42,941	22,406	59,330
Barley, centals	8,724	23,260	16,283	14,454
Beans, sacks	1,138	763	1,716	944
Corn, centals	541	.....	1,415	4,043
Oats, centals	1,171	4,910	207	1,071
Potatoes, sacks	5,862	11,209	6,828	10,091
Onions, sacks	163	801	130	822
Wool, bales	4,289	7,767	8,476	8,643
Hops, bales	15	90	19	98
Hay, bales	1,257	1,310	951	1,291

Bags—Trade in Bags is increasing rapidly. Prices are unchanged from last week. Large lots of standard Wheat Bags are sold at 12¾c on spot, and 12⅞c June delivery, with small sales as noted last week at 13c. Bags are firm.

Barley—There have been large transactions in Barley, but the supply is ample and quotations are unchanged. We note sales: 250 sks bright heavy Coast, suitable for brewing, $1.20 ₱ ctl, silver; 900 do Coast Feed, in warehouse, $1.15, half silver; 300 do on wharf, same lot, $1.15, all silver; 140 sks Coast Feed at $1.15, silver; 800 do do, $1.15, and 1,000 do Bay do, $1.15, both half silver; 200 sks poor Chevalier Feed, $1.15, silver; 868 do light Coast Feed, containing some adobe, $1.10, half silver; 548 do good Bay Feed, $1.15, silver; 300 sks Coast Feed, $1.12½; 200 sks pinched Chevalier, $1.12½; 800 sks Coast Feed, $1.15, half silver; 140 sks do, $1.15, silver; 700 sks good Coast Feed, $1.12½; 750 do Bay do, $1.15, both lots half silver; 200 sks light Chevalier, $1.12½.

Beans—Bayo Beans now bring $5.00 ₱ ctl. Lima Beans are a shade easier.

Corn—Large varieties are plenty at last week's prices, $1.10@$1.17½ ₱ ctl. Small Yellow has sold at $1.25 ₱ ctl. We note sales: 100 sks large White, $1.15; 950 do large Yellow, in three lots, $1.12½; 100 do choice large Yellow and White mixed, $1.17½; 175 do choice small Round, $1.25; 300 sks good large Yellow, in warehouse, $1.12½; 250 sks large Yellow at $1.12½; 175 do small Yellow, $1.25; 740 sks good Yellow, in lots, $1.12½; 100 do do, $1.15; 175 do small Yellow, $1.25; 100 do large and small mixed, $1.17½ ₱ ctl, all half silver.

Dairy Produce—Prices are unchanged.

Eggs—Eggs are a shade better to-day and have reached 30c ₱ dozen.

Fish—Salmon continues very plentiful, and fine large Fish sell at 25c each. Codfish, Rockfish and Smelts are scarce and dearer.

Fruit—Cherries and Gooseberries are again in market, and now retail at 35@60c for the former, and 20@25c ₱ lb for the latter. Strawberries are more plentiful, and retail prices have declined to 15@20c ₱ lb. California Oranges are scarce. The steamer *Zealandia* brought up a fresh supply of Bananas from the Islands.

Honey—The new crop in. Prices are as follows: New crop in the comb in 2-lb cans quotable at $3.50@3.75 per doz; choice new white in frames, 18@20c; fair white, 12½@15c; dark, 10c; strained, 8@13c.

Hay—The range of prices is unchanged. There have been receipts of new Clover and Wild Oat Hay. We note sales: 40 tons new Wild Oat Hay, the first cargo this season, at $11.50; 30 do new Clover, at the railroad, $11; 44 do old Wheat and Oat, $14; 27 do choice Wheat, $18.50; 20 do do Wheat and Oat, $17.50; 19 tons good Wheat and Oat, $17.50; 27 do choice Wheat, $18.50; 35 do Volunteer, $14; 28 tons fair Wheat, $13; 44 do, $13.50.

Hops—Hops are without change. Prices for different descriptions may be quoted as follows: Russian River, 11½@14c; Sacramento, 11@13c; Oregon and Washington Territory, 9½@10½c. Emmett Wells reports the New York market for the week ending April 28th as dull and quotations entirely nominal.

Oats—Oats have been in light demand. We note sales: 200 sks fair Feed, $2.15; 250 ctls Coast, $2.25; 200 sks Coast Feed, $2.25, half silver.

Potatoes—Potatoes have fairly fallen through. The price to-day is quotable as low as 75c@$1.12½ for the best State Potatoes, and $1.00@1.25 for Salt Lakes. We note sales during the past week as follows: 200 sks fair Petaluma at 90c; 100 do choice Tomales, $1; 200 sks good Petalumas at 90c; 100 do Tomales at $1; 140 sks good Tomales and Bodegas, $1; 100 sks Tomales at $1; from storehouse, 200 do Petalumas at 90c per ctl. The feeling to-day is even worse than the early days of the week when some of the above sales were made.

Provisions—Lamb and Mutton are lower. The fresh Meat market is generally dull. The market for Hams and smoked Meats is improving. Tallow is dull.

Vegetables—String Beans and summer Squash are among the novelties. Prices for them are given in our tables. Asparagus is a little better to-day. Cauliflower is coming in more freely.

Wheat—We have to report large sales of Wheat at reduced prices as follows: 2,000 ctls superfine at $1.50 per ctl, gold; 2,000 sks choice Santa Clara milling, $1.72½; 200 do good do, $1.70; 2,000 sks common, $1.50; 11,000 ctls shipping, $1.60; 6,000 sks Oregon shipping, $1.65; 1,000 ctls good milling, $1.65 per ctl; 3,000 do Stockton, $1.62½, delivered at Vallejo; 2,800 sks superfine milling, $1.50.

Wool—There have been sales of Wool at old prices. There is no new tenor in the market which can be observed. We note sales of 350,000 lbs at a range of 12@18c; 117,000 lbs at 13@17c. Burry Wool, good quality, brings 13@14c; choice free, $15@17c. Northern Wools have just commenced to arrive. They are held at 18c for fine lots. The Eastern markets are reported dull and without change.

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday M., May 10, 1876.

FRUIT MARKET.			
Oranges Mex. ₱ M	—	—@—	—
Tahiti, do	30 00	@35 00	
Cal. do	30 00	@80 00	
Limes, Mexican, ₱ M	10 00	@—	—
Malaga Lemons, ₱ bx	—	—@—	—
Cal. ₱ 100	2 00	@ 3 00	
do Sicily ₱ b'x	9 00	@—	—
Bananas, ₱ bnch	2 50	@ 4 00	
Cocoanuts, ₱ 100	6 00	@ 7 00	
Pineapples, ₱ doz	6 00	@ —	
Apples, ₱ box	1 87½	@ —	
do Choice	2 00	@4 00	
Blackberries	—	@ —	
Cherries, ₱ lb	50	@ 75	
Figs	—	@ —	
Huckleberries	—	@ —	
Strawber's ₱ case	6 00	@9 00	
Pomgranates	—	@ —	
Raspberries	—	@ —	
Currants, ₱ ch	—	@ —	
Cranberries ₱ bbl	13 00	@14 00	
Peaches, ₱ bx	—	@ —	
Pears, ₱ bx	1 75	@3 00	
do Choice	—	@ —	
Crab apples, ₱ bx	—	@ —	
DRIED FRUIT.			
Apples, ₱ lb	9	@12½	
Pears, ₱ lb	8	@13	
Peaches, ₱ lb	12	@12½	
Apricots, ₱ lb	14	@15	
Plums, ₱ lb	5	@ 6	
Pitted, do ₱ lb	17	@22	
Raisins, imported	3 25	@3 75	
Cal. Raisins	5	@ 10	
Black Figs, ₱ lb	5	@10	
White, do	12½	@15	
Prunes	12½	@17	
Citron	28	@ 30	
Zante Currants	9	@ 10	
VEGETABLES.			
Asparagus ₱ box	1 00	@1 75	
Beets ₱ ctl	—	@ 75	
Cabbage, ₱ 100 lbs	87½	@1 12½	
Carrots, per ton	12 50	@15 00	
Cauliflower, doz	50	@ 75	
Celery, doz	50	@ 1 50	
Garlic, ₱ lb	—	@ 5	
Green Peas ₱ lb	1½	@ 3	
Green Corn ₱ doz	—	@—	
Sum'rSquash ₱ lb	10	@—	
Marro'fat Squash, tn	20 00	@25 00	
Artichokes, ₱ doz	—	@—	
String Beans, ₱ lb	15	@ —	
Lima Beans	—	@—	
Parsnips	—	@—	
Shell Beans	—	@—	
Peppers, green, bx	—	@—	
Okra	—	@—	
Cucumbers, ₱ doz	75	@1 25	
Tomatoes, box	—	@—	
Egg Plant, bx	—	@—	
Rhubarb	1	@ 3	
Lettuce	—	@—	
Turnips, pr ctl	75	@1 00	

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday M., May 10, 1876.

BEANS.			
Bayo, ₱ ctl	5 00	@ —	
Butter	2 00	@2 50	
Pea	1 75	@2 12½	
Pink	—	@2 50	
Sm'l white	1 85	@2 00	
Lima	2 10	@2 37½	
BROOM CORN.			
Common, ₱ lb	2	@ 3	
Choice, do	4	@ 5	
COTTON.			
Cotton, ₱ lb	15	@ 18	
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Fresh Roll per lb	22½	@ 27½	
Point Reyes	—	@ 30	
Firkin	25	@ 27½	
W'st'n Reserve	16	@ 20	
New York	—	@ —	
CHEESE.			
Cheese, Cal., lb	12	@ 15	
do Old	10	@ 15	
Eastern	15	@ 18	
EGGS.			
Cal. fresh ₱ doz	27½	@ 30	
Ducks'	—	@ 25	
Oregon	—	@ 25	
Eastern	22½	@ 24	
FEED.			
Bran, per ton	—	@20 00	
Corn Meal	27 50	@28 00	
Hay	12 00	@19 00	
Middlings	25 00	@—	
Oil cake meal	—	@37 50	
Straw, ₱ bale	50	@ 60	
FLOUR.			
Extra ₱ bbl	5 50	@6 00	
Superfine	4 75	@5 00	
Graham, ₱ bbl	5 50	@ —	
FRESH MEAT.			
Beef 1st quality lb	6½	@ 7½	
Second do	3½	@ 4	
Third do	2	@ 3	
Spring Lamb	5½	@ 6	
Mutton	3½	@ 4	
Pork, undressed	8¼	@ 8½	
do, dressed	11½	@ 12	
Veal	5	@ 7	
Milk Calves	7½	@ 8½	
GRAIN, ETC.			
Barley, feed oil	1 10	@ 1 15	
do brewing	1 22½	@ 1 27½	
Chevalier	1 25	@ 1 45	
Corn, White	1 10	@ 1 17½	
do Yellow	1 10	@ 1 15	
Oats	2 00	@ 2 50	
Milling	—	@ 2 75	
Rye	1 75	@ 1 80	
Wheat shipping	1 60	@ 1 65	
do milling	1 70	@ 1 75	
HIDES.			
Hides, dry	13	@ 15	
do wet salted	6	@ —	
HONEY, ETC.			
Beeswax, per lb	25	@ 27½	
Honey in comb	14½	@ 15	
do Strained	8	@ 13	
HOPS.			
New crop	10	@ 13	
NUTS—Jobbing.			
Alm'ds a'rd sh'l lb	8	@ 10	
do, soft sh'l	16	@ 18	
Brazil do	14	@ 16	
Cal. Walnuts	7	@ 11	
Chile Walnuts	11	@ 12½	
Peanuts per lb	9	@ 10	
Filberts	15	@ 16	
Pecanuts	17	@ 18	
ONIONS.			
Union City ctl	2 75	@ 3 00	
Stockton	2 75	@ 3 00	
POTATOES.			
Petaluma, ₱ ctl	75	@ 1 12½	
Salt Lake	1 00	@ 1 25	
Humboldt	1 00	@ 1 12½	
Early Rose	2 00	@—	
Sweet	—	@—	
New, lb	1	@ 3½	
POULTRY & GAME.			
Hens, per doz	9 00	@ 9 00	
Roosters	—	@11 00	
Broilers	6 00	@8 00	
Ducks, tame, doz	8 00	@9 00	
do Mallard	—	@9 00	
do Canvass	—	@5 00	
Geese, per pair	2 00	@ —	
Wild Gray doz	3 00	@4 00	
White	1 50	@2 00	
Turkeys, Live, lb	23	@ 24	
do Dressed	24	@ 27	
Quail, per doz	—	@—	
Snipe, Eng., doz	2 00	@2 50	
Doves, per dozen	80	@ 75	
Rabbits	1 00	@1 50	
Hare, per doz	1 50	@2 00	
PROVISIONS.			
Cal. Bacon, L'l, lb	16½	@ 17	
do Medium	16	@ 16½	
do Heavy	—	@ 15½	
Lard	15	@ 17½	
Cal. Smoked Beef	9	@ 10	
Eastern do	—	@ 12½	
East'n Should's	—	@ 10	
Hams, Cal	14	@ 14½	
do Armour	14½	@ 15	
do Worster's	16½	@ 17	
do Dupee's	16	@ 16½	
do Davis Bros'	16½	@ 17	
SEEDS.			
Alfalfa, Ohio lb	8	@ 10	
do California	11	@ 12	
Canary	18	@ 20	
Clover Red	—	@ 25	
do White	50	@ 55	
Cotton	—	@ 10	
Flaxseed	—	@ 3¼	
Hemp	12½	@—	
Italian Rye Grass	25	@ 30	
Perennial do	20	@ 30	
Millet	10	@ 12	
Mustard, white	3	@ 3½	
do. Brown	3	@ 3½	
Rape	7	@ 8	
Ky. Blue Grass	33	@—	
do 2d quality	29	@—	
Sweet V Grass	—	@ 75	
Orchard do	30	@ 25	
Red Top do	—	@ 25	
Hungarian do	8	@ 12	
Lawn do	50	@ —	
Mesquit do	20	@ 25	
Timothy	11	@ 13	
TALLOW.			
Crude, ₱ lb	7	@ 7½	
Refined	9	@ 10	
WOOL, ETC.			
SPRING—			
Seedy, ₱ lb	11	@ 12½	
Choice long free	17	@ 18	
do short	13	@ 16½	
Burry	12	@ 14	
Oregon	—	@ —	

The Two Homes.

[By ANNE F. BRADLEY.]

I paid a vleit to my friend last week;
She hae a beautiful, well-ordered home—
Hnehand and children, coach and horees eleek,
And at her hldding eervants go and come.

She led me proudly through each etately room,
Rich in upholetered grandeur; laces fair
Hnng at the windows, over crimson gloom,
And work of taete and art were everywhere.

The coetly eervice on her snowy hoard
Gllttered, in labored lovelineee arrayed;
And savory food, and fragrant nectar pour'd,
Proclalmed the aklll of mistreee and of maid.

Yet she was worn, and silent, and her eye
Spoke not the wife and mother's glad content;
Her fretting children richly clad went by
On fashlon'e claims or eelf-amusement hent.

Late from hie cluh her husband home returned;
No greeting at the door, where arms entwine,
But through the halls hie fragrant meerschaum hurned,
And boon companions reveled at hls wine.

* * * * * * * *

I pald a visit to another friend;
A eimple cottage bounded life for her,
But in it were the joys that Heavenward tend,
And love'a sweet household fairiee all astir.

On well-worn carpete, trod hy llttle feet,
The winter sunshine lay in patchee hright.
And in the parlor windows, gay and sweet,
Green vines and flowers alone obscured the light.

The food was slmple, yet therein wae wrought
Most etudioue care for nature's high demands—
Books, papers, pictures, furnished food for thought,
And cheered the drudgery of the busy hande.

Fresh from their school the romping children came,
Their cheeks atingle and their minds aglow—
Questions to ask, euccesses to proclaim,
The hreezy whirlwind only mothers know.

And later, from the labors of hie day,
The hushand'e dear, familiar step wae heard;
The smile, the look, in love's own conscious way,
Said more to me than any spoken word.

Oh, richer friend! the world esteems as hest
Thy choeen lot, yet must one heart deplore.
Oh, purer friend! I call thee greatly hlest,
And in my prayers could hardly wlsh thee more.
—*Phren. Journal.*

Farmers' Wives and Husbands.

[Written for the PRESS by MRS. C. I. H. NICHOLS.]

The subject of "overworked farmers' wives" has been so fully and ably discussed in the Home Circle of the RURAL, that I have hesitated about putting in a word. But, as Brother Berwick says in his admirable rendering of "Practical Themes," "Any suggestion that may alleviate that frequently ill-appreciated overwork which brings too many to an early grave, are worthy of a conspicuous place in your columns," and many a farmer's wife will thank him in her heart for his opportune suggestions touching the abatement of that work.

Where so much has been said, and by hard working farmers' wives themselves, it would seem that nothing had been left unsaid. But there is one phase of the subject—the "*ill appreciation*" of the wife's work—which seems to me all important, as holding the secret of many a blighted life and early grave. On this point I will try, dear friends, to put the convictions of years of observation and experience in words of tenderness and truth, that shall, by bringing hearts nearer, make lighter the burdens that must be borne—the overwork that cannot be abated. But how express with my pen what needs the emphasis of tones and modulations of the voice? How wake echos from the deep-toned organ by delicate touches that win music from the Æolian harp only?

Men and women are in some respects like musical instruments. In their moods they tune and tone each other. And whether they take note of the fact or not; whether they execute with the skill of design, or blunder upon the keys without thought and without care, the effect is certain, especially in the tender relations of domestic life.

Said a gentleman, "I have only to hear the tone of my wife's voice to know the mood she is in. If it is pitched on a despondent key, my own mood plays an accompaniment; if it has the soft, sweet undertone of loving content, or the energetic ring of health and hopeful forecast, my whole soul springs into accord." This man had a temperament closely allied to the feminine; he represented the Æolian harp where others represent the organ. Yet though differing from each other in the impressionable and responsive qualities of temperament, all men, as well as all women, are practically subject to and influenced by mental states termed moods. And to control these, and wisely use or suppress their expression for the happiness of those with whom we are associated, gives opportunity for most delicate and grateful proofs of unselfish consideration.

The man whose equanimity succumbs only to serious pecuniary loss or family bereavement, is naturally slow to discern that a harsh or indifferent expression, as he passes his wife at some trying task, sinks with the crushing weight of both loss and bereavement on her more sensitive spirit. And he wonders at her weakness probably, when, in his better mood, some old-time tenderness or caress elicits from her fasting affections a flood of tears, where he angled for nothing more than the blush and smile of the honeymoon. In spite of diploma'd quacks and their *Materia Medica*, many a delicate woman has fallen into a decline where, if her business-absorbed husband had treated her case with reassuring words and smiles, her nervous organism would have responded to the affectional stimulus and renewed health, as well as mutual happiness, would have been the result.

Said a careless husband, but a good provider, "My wife has nothing to complain of. She has pin money when she asks for it, and as I like a good living myself, she comes in for her share." Now, every intelligent woman feels that a decent regard for public opinion, if not common humanity, will influence most men to furnish material comforts for their families when *asked* to do so. But the loving word, the appreciative smile, the kiss snatched by the cradle or wash tub, are the perquisites of wifehood, the sweet blossoming of a tender sympathy—of a supreme affection, more treasured and more missed as time in his flight steals her youth and sobers her spirits.

Some smiling brother who thinks the task set him very easy, asks, "Is this all?" A blushing sister whispers, 'O, Mrs. Nichols, it is all true; but I never could have told my husband, never!" I knew you could not, and so am telling him for you. Another whispers, "I get the smiles and the kisses, and I know my husband appreciates me as an industrious, economical and tidy housewife, but like other men he has grown up under the shadow of a hoary worship of physical prowess, and, often in his remarks betrays, unconsciously, a low estimate of the comparative value and importance of a wife's labor and responsibilities. Women, generally, as the result of this *ill appreciation* of their work, feel like beggars when appealing to the community purse for personal expenditures. And in spite of my husband's personal kindness I am no exception, but he would feel hurt if I told him this, and perhaps suspect me of lacking confidence in him." I understand you, my sister. The fault of which you complain is a generally low estimate of the character and value of the wife's services. To illustrate, I will draw on my personal observations.

My friend, Mrs. A., is a live woman. She has young sons and half-grown daughters, and she feels it to be her duty and her pleasure to meet the educational demands of the day, both for herself and them. She wants books and periodicals that give information of special interest to women, mothers, educators, housekeepers, children. But when applied to for the means, her husband—a good provider in the main— replies, "I am taking more papers now than any of you read, and I can't afford to take any more." "But," suggests my friend, "can't you drop one of yours and let *us* have a paper?" "Why no, my dear, I must have my *Farmer* to keep up with the improvements in stock raising, cropping and farm matters generally. My city daily tells me the condition of the market, prices, etc., I save money by taking it; and my *Democrat* I must have to know how to vote. So you see, my dear, I haven't a paper more than I need." And his intelligent wife feels that he does indeed need them all, and more too, especially to know how to vote! But like you, my sister, she fears to wound a heart that she knows loves her above all other women, and so retreats silenced but saddened, to take up burdens grown heavier by the repulse.

Now, this man is only self-absorbed. He has accepted his social and domestic relations as they were fashioned for him by less enlightened generations. He is an autocrat by descent and not, consciously, of his own election. Enlighten his understanding through his affections; admit, as his wife has, that he needs all these aids in raising fat hogs, fine cattle, horses and crops, and to "know how to vote;" admit it with all the grace and sweetness of a noble, womanly nature, and then remind him that fine thoroughbreds stabled are a menial charge compared with the human thoroughbreds of his nursery; that as the purveyor of his home felicities and the mother of his children, his wife's responsibilities are more complicated than his, her duties more critical—that her need of the gathered wisdom of many experiences is more imperative, and her use for it a Jacob's ladder on which the angels (of earth and heaven) may ascend and descend—blessed and blessing.

A few years ago I was visiting with an excellent family, when some legislative action affecting the widow's dower raised a discussion. The gentleman—as good a husband as our unequal marriage obligations can make or mar—assumed that to give the widow half the estate was too much, inasmuch as "the wife was not a producer." "The man," said he, "makes all the money; accumulates the property. Now, I have earned and stocked this farm and laid by a little money in bank. My wife's time has been fully occupied with her household affairs."

"Well, my friend," said I, "you can bear plain talk; now let me put you on the witness stand in your wife's behalf. You commenced life together with a simple outfit of necessaries—your combined savings. As a business capital, each put into the copartnership a head, a pair of skillful hands and a hopeful heart. Am I right?" "*To the letter.*" "You bought Government land, improved it, and in the course of years paid for and stocked it—your wife raising the children and contributing butter, eggs and chickens to meet family expenses." "Just so." "You raised crops and stock; she, chickens and children. Now which demands the more continuous care and choicer quality of labor—which, in a reasonable schedule of prices, should command the higher wages—to raise stock or children? Remember the perils and the suffering which no money can repay is the mother's, not to be counted in my estimate except as entitling her to the casting vote in all matters pertaining to her personal comfort and convenience and the insuring to baby life a vigorous and happy development. But children, as well as chickens, crops and stock, have a cash value. Your three grown sons—aged 17, 19 and 21—have saved you men's wages in seed time and harvest, even while getting their educations, thus helping to stock and pay for the farm. And since the younger boys have taken their places in the farm work they have, you tell me, earned you men's wages in work for your neighbors. Your two daughters have assisted in the garden and the kitchen, and in various ways left you and the boys 'foot-loose' for farm work and general business and saved the hire of seamstress and 'maid of all work.' Now, in raising these children your wife's labor represents more than half the actual cost, and their cash value in the accumulation of the estate is as much her investment as yours—is it not?"

"Yes, you are right, but I never saw it in this light before. Indeed I never thought of it; did you, wife?" "Yes, John, but I feared if I mentioned it you would think me mercenary, and not understand that I wanted you to appreciate my services at their full value, that I might stand higher in your esteem, and be accorded equal freedom in the use of community funds for the better discharge of my duties. And—and I have often thought that the deed of the farm should be made to husband and wife jointly, and the laws so framed that the widow, as well as the widower, could escape the probate cormorants that live and build palaces of the bread and tears of widows and orphan."

Some little pale, patient-faced woman who has followed me thus far, says to herself with a smothered sigh, "But I am sick so much! I have had no health since the first year of our marriage. I have managed to take care of the children (she has four, the eldest only five years) and do the family sewing, but my husband has to hire a girl to do the housework. I never ask him for anything I can possibly do without, and I put off asking till the dread of hearing him say, 'I can't afford it,'or 'can't you get along without it?' brings on those dreadful nervous headaches." Ah, my sister, having set you apart to the holy offices of maternity—at the expense of your health and strength—your husband owes you more, rather than less consideration. But probably he has never thought of it in connection with your personal expenditures. You have wronged him as well as yourself by an unwifely reticence in a matter touching his honor as a man and his tenderness as a husband. Your own humiliating and self-renouncing estimate of your dues as wife and mother may have tainted his otherwise generous soul with sordid and niggardly views of your personal claims on the means which, in the vigor of health and freedom of effort, he has succeeded in accumulating. You owe it to yourself and the whole social world—you owe it to him to get up higher, into the humanities, where your children, as helps or hindrances, will outweigh all else of your joint earnings and savings.

It is my settled conviction that of average husbands who are honest, industrious and temperate, nine in ten would be drawn into tender sympathy with a wife's duties if appealed to with the logic of facts, in the faith of love. I knew such a man who never forgot to deposit in his wife's cash drawer a portion of his weekly cash receipts. Years after the commencement of the practice, he told her that he was prompted to the course by overhearing her remark to a friend that she always felt like a beggar when asking money of her father, and could not overcome her repugnance to ask it of her husband, though he had never hesitated to give when asked.

FUNNY EXPERIMENT WITH RESTLESS CHILDREN.—The latest thing in the invention line is a contrivance for preventing uneasy and mischievous children from "joggling" each other in school. It is described as follows: "In the seat of each chair is placed a small metallic plate connected by a wire with a galvanic battery on the teacher's desk. Each alternate chair is connected with a positive pole of the battery and the other with the negative pole. So long as the children remain quiet no shock is experienced, but the moment one child touches another an electric current is created, and both the victim and his assailant are held fast. An uproar is created and the attention of the teacher is attracted." This novel plan is designated "a machine to prevent joggling in school-rooms," and the inventor has actually enlisted the help of the keeper of a small private school in the Tenth ward to allow him to exhibit the effectiveness of the invention. It is no exaggeration to say that it is a complete success, and that restless boys once under the operation of this galvanic shock are done forever with "joggling" as a means of grace.

Visiting.

There are three essentials which must be understood and acted on before visits and visiting will ever fulfil the ideal of the pleasure they ought to be and to give. First, nothing must be done for parade or show. No matter how rich a man may be, if he sets on his dinner table one thing, either to be eaten or to be looked at, simply for show, it is a challenge and an offense. Of course, nobody is so absurd as to maintain that the rich must make dinners of herbs because the poor cannot afford stalled oxen. A very feast of good things, both for the eye and the palate, can be set out without any attempt at or any suggestion of mere parade, mere display. There are plenty of ways in which a man may advertise his wealth, if he likes, without doing it in his hospitality. To do it there, or even seem to do it there, is the very essence of vulgarity and real inhospitality. To avoid, by every possible device and by the utmost tact, the bare suggestion that the guest is the recipitant, and not the conferrer of favors, is the first principle of entertainment. To ask a man to your house and treat him as if he were inspector of wines or tax gatherer on silver, is a piece of very coarse stupidity; and to make a very great difference between the way you live when you are alone, and the way you live when you have friends under your roof, is surely a very direct way of injuring one's own self respect, of casting an unpleasant reflection on one's own personal standard of taste.

The second essential of the ideal visit and visiting is, that the host, not the guest, set the limit of the visit. There is so false a notion in this country on this point that it almost seems as if it must spring out of a national lack of directness and sincerity. Everybody knows when he asks a friend to his home, how long he wants him to stay. There may be 50 reasons combining to make him very glad of a visit three days long, and very much inconvenienced by one longer. Honest people ought to find no difficulty in saying this; and honest people take no offense at hearing it. This does away with all possibility of misconstruction on either side, with all uncertainties as to welcome, with all fears of intrusion.

A third essential of ideal visits and visiting is that there be on the part of the host no strained effort to entertain or amuse the guest, on the part of the guest, no expectation of being amused or entertained. Simply to meet for the interchange of good will and cordiality, the usual current of life going on undisturbed, the habits of the family remaining unchanged—that is the true social visit. The man who knows how to "drop in" of an evening, draw his chair up to your hearth as if it were his own, and fall into the usual evening routine of the household as if he were a member of it—how welcome he always is! The man who comes to stay under your roof for a season, and who, without being intrusive or familiar, makes you feel that he is at "home" with you, and is content in his usual fashion of occupation—how delightful a guest he is! And the houses—ah, how few of them! —into which one can go for a day or a week, and feel sure that the familly routine is in no wise altered, the family comfort in no wise lessened, but on the contrary, increased by his presence—what joy it is to cross their thresholds! What good harbors of refuge they are to weary wanderers!

When the world mends its ways in these regards, when these essentials are fulfilled, the lost art of conversation will revive; hospitality will be worthy of its name; and householding and housekeeping become, as they ought to be, the greatest pleasure a man can have.—"*H. H.*" *in the Independent.*

A PLEA FOR CLEANLINESS.—A well regulated farm does not always have a neat and systematic house. Many farmers look first to the improvement of their land and last to the making comfortable and cheerful their homes. One is often struck in travelling through the country with the difference between the systematic household, where there is a place for everything and everything in its place, and the household where irregularity prevails, where the household furniture as well as the out-door implements show neglect, and where the comforts predominant in a systematic home are unknown. System and neatness should also reign in the house yards. A pile of wood here and a heap of old lumber there, waiting a more convenient season to be stored in the woodhouse, are useless and very suggestive of laziness; every farm should have a woodhouse where the wood for a year should be stored each autumn. Other disgusting sights are often seen in house yards, such as heaps of ashes, old bones, old boots and innumerable other nuisances which are allowed to accumulate, often breeding disease. Whole neighborhoods are often greatly alarmed by the sudden appearance of fevers which are caused by the carelessness of a few, or perhaps one household who are slovenly in allowing old castaways to accumulate, and especially those who have no proper system of drainage. A filthy back door is sure to breed disease. For the preservation of health drainage should be looked to carefully. A swill barrel at a back door is an institution that should be done away with. The proper place for a swill barrel is in the pig-house, where all swill as fast as it accumulates should be placed. The rear of the house should be kept as neat as the front. System and regularity should exist in the barns. Cattle are not calculated to roam about the barn floor among mowing machines, horse-rakes, scythes, etc.

A Royal Sewing Society.

The London correspondent of the Ciucinnati *Commercial* tells about a sewing society among the English princesses, as follows: An interesting exhibition closes to-day in Kensington. It is a display of ornamental needle-work intended for the Philadelphia exhibition. There is a school for that kind of work, of quite recent origin, which was started nnder the patronage of the Queen, and under the presidency of the Princess Christina of Schleswig-Holstein. It has 13 titled ladies on its council. Its artists' committee are Leighton, Prinsep and Bodley. The object of the school is to restore "ornamental needle-work, for secular purposes, to the high place it once held among decorative arts, and to supply suitable employment to poor gentlewomen." They have over 100 "lady workers," all carefully trained, "and the school undertakes to execute decorative needle-work of all kinds (lace excepted), also to repair and restore ancient needle-work, to which particular attention is given." Ladies desiring to execute work for themselves can have it prepared for them, and "crewels" and other materials may be had on application. Lessons given to amateurs, half guinea an hour. And so forth.

It is this school which has got together its choicest work, and given us a glimpse of it before sending it to Philadelphia. It is the finest work of that kind which I have ever seen, and is a revel tion of the extent to which the needle may ren der effects hitherto supposed to be the monopoly of the artist's pencil. The poet Allingham once wrote some lines to a girl sewing, which began, "Oh, Mary Ann, you pretty girl," and, as I remember, declared her needle to be Cupid's arrow, but I don't know what lyrical enthusiasm might not have been aroused in him if he had seen these young ladies engaged in their mo t beautiful work. Ever since the school was established, the work has been expanding in importance. It began wi h the embroidering of court robes, fire screens, curtains, ottomans, and the like, but now the needle decorators propose to arrange the entire interiors of drawing rooms. Instead of papered, frescoed, or distempered walls it is proposed to have richly embroidered hangings, subserving the same purpose as the old tapestries, though much lighter. Mr. William Morris (artist and poet) has designed and these ladies have executed—with what has plainly been much elaborated—a wall designed of floral scrolls on a cream-colored ground, which certainly makes the wall on which it is here hung appear very rich.

Another of his designs is for a dado, in which a series of conventional peacock's tails is wrought on a floral ground, all in deep, dim green, which I imagine might be effective in a room filled with richly carved furniture. But the finest thing is an architectual design for the decoration of the end of a room, made by Mr. Walter Crane, a decorative artist of rising fame, which consists of lofty pilasters, with almost life size figures beneath the arches, and others seated in lunettes above. There are screens, curtains, quilts, chimney valances, and other things on which all manner of flowers and vines are represented with surpassing skill. One very obvious suggestion of the exhibition is that all the specimens seem to pre-suppose a population living in palaces. The poor "gentlewomen" seem to have been inspired by visions of lost, or dreams of future splendors of the palatial kind. It may be that the Quaker City will be suddenly seized with a divine rage for these costly hand fabrics, but on this side of the water it is not probable that the upholsterers have a great deal to foar. At the same time I could not help reflecting, while examining this work yesterday, that our age of machinery has made us unfamiliar with a class of work capable of some very wonderful and various effects.

A Connecticut Wedding Fee.—The Hartford *Courant* narrates the following ludicrous incident: A clergyman who was formerly located in this city, but who is now in New York, married a little over a year ago a couple who at once started for Europe and have recently returned. The bridegroom was a gentleman of wealth, and before he presented himself before the altar he placed a $100 greenback in his vest pocket to give the parson for the marriage fee. While crossing the ocean he discovered, greatly to his astonishment, the bill in the pocket where he had placed it, and could acoount for its presence there only on the theory that he must have had another bill of different denomination, and which he had given to the clergyman by mistake. On getting back to this country he determined to solve the mystery, and waited upon the reverend gentleman and inquired if on a certain occasion he did not marry a certain couple. The clergyman remembered the occasion perfectly. "I know I am about to ask an impertinent question," said the visitor, "but I should like to be informed what fee you received for performing the ceremony?" The clergyman said that he would, of course, gratify him. "I received," he went on to say, "a very small quantity of fine-cut chewing tobacco, folded in a very small piece of paper." The only thing remaining to be done the gentleman did. He laughingly apologized for the mistake, shook hands, and made good his original intention by leaving $100 in the hands of the clergyman.

Young Folks' Column.

Letters to Boys and Girls—No. 13.

[Written for the Press by Jennie E. Jameson.]

The Maple Sugar Story, Concluded.

The next morning Bertie was up very early for a city boy—and, after breakfast, was ready to ride to the sugar-place on the sled, behind the big red oxen.

As soon as they reached the sugar-house, Willie shouted, "Now, everybody must help 'stribute buckets—one to every tree that's big enough to be tapped!" So Bertie tried to help, but soon got discouraged, for, after tugging away until he got a bucket just in the right place, as he snpposed, he would hear Willie laughing and crying "Oh, ho, that's an elm tree!" or, "That's a beech! You can't tell a maple from a hitching post, I know."

Very soon his uncle began to bore little round holes in the trees. Under these he put little tin spouts, about twice as long as Bertie's longest finger; these were driven into a place cut for them in the tree. The buckets were hung upon iron spikes, directly under the spouts. Bertie went about from tree to tree and saw something that looked like water come out of the holes into the spouts and drip, drip, drip into the buckets. Willie said that this was sap, and, after holding a dipper under the spout for a long time, Bertie found that it tasted very nice and sweet. "The trees are running right smart to-day," said Willie, putting his blue-mittened hands in his pockets, and nodding his head knowingly toward the trees. "Should n't wonder if we could boil tomorrow."

Bertie wondered what "right smart" meant. He thought it could not mean that the sap ran fast, for it only came a drop at a time, and he thought it would take several days to fill a bucket. He looked up at the trees, with their great bare, brown branches swinging in the wind, and the foolish little fellow actually wondered if the sugar maples ever took a notion to run away. He did not feel like asking Willie, because he said that Bertie "didn't know a maple from a hitching post;" so he ran up to James, and whispered, "Do maple trees every run away? Willie says they're having a 'right smart run.' I don't see the trunks move, but they're such queer animals, making sugar, and all, I didn't know—"

"Maple trees run? No, indeed!" said James, "Willie means that the sap runs fast. You will see, in the morning, that we shall have to empty the buckets."

Sure enough! the next morning when they reached the sugar place, many of the buckets were full. James said he must "gather sap;" so he put on a queer-looking wooden yoke, which was hollowed out to fit his shoulders, a place being cut for the neck. The ends came out beyond his shoulders, and to each one was attached a small chain. On the end of each chain was a hook; upon these he hung two large wooden pails, and going to the trees, he turned the sap from the buckets into them. When they were full, he turned the sap into the large pan which sat upon the arch in the house, and when that was nearly full, he built a fire under it, which soon set the sap to boiling.

After it had boiled about five minutes, Bertie wanted to taste and see if it was "coming sugar." This made Master Willie shake his plump sides with laughter. "Ho, ho!" said he, "You city folks don't know skacely nothin' 'tall, and always will! Takes *me* to know all about it. It's got to boil lots and lots."

"How's grammar these days?" said James, coming in to turn two pails of sap into a huge hogshead. "I guess Bertie wouldn't want to try to beat you on poor grammar, or no grammar at all."

"That's a fact!" said Willie, good naturedly, "but Bertie's too funny for anything. He thinks fir trees would make sugar quicker than maple, 'cause the *juice is thicker*."

"Well, you just be good to Bertie, or something will happen to you," said James.

Willie was a good natured boy, but if there was anything he liked better than mince pie and maple sugar, it was to laugh at the mistakes of others, and he sometimes laughed as loud over his own. He did not mean to be unkind, but Bertie was not used to being teased, and he liked Patty best, because she never laughed at him; therefore he was delighted when, after a great deal of sap had been boiled a long time and made into syrup, she came to the sugar house to help "sugar off." "Sugaring off" days were almost as good as the Fourth of July for the little folks. The whole family came up the narrow path through the snow, armed with dishes and spoons, ready to eat sugar until they had to stop because they could not eat any more.

Willie was in his glory. He jumped and ran, shouted and sang, distributing himself generally, until he seemed to be in half a dozen places at once. At last he thought he would make a speech. So he mounted the woodpile, and quoting from some backwoods orator, cried: "My friends and fellow-citizens of Pine hollow, when I come to this country it was all a vast and h-o-wling wilderness, and all these tall and flourishin' pines was nothin' but a little mess of huckleberry bushes. Now, all is changed; the only wild animals that roam this forest are the squirrel, woodchuck, rabbit and mouse. Here is a specimen of the latter. He came to an untimely end last night when trying to steal some syrup, by falling into a pail of sap." Just here the stick of wood on which Willie was standing gave way, and he went head first into a hogshead. Fortunately there was but little sap in it, and he was pulled out so quickly that he was, as he said, "most as good as new," but he made no more speeches that day, preferring to show Patty and Bertie some new pictures made with a coal upon the walls.

James had drawn one representing himself making sugar without a sugar house. He said that was the way all farmers used to do. They would put up four posts, or cut off the tops of four trees; fasten small timbers to the top and put on a covering of boards. Here the arch was built and the sugar made, though with some additions of sticks and leaves. Sometimes it was very hard to keep a fire and the smoke would fill the eyes of every one who came near, so at last the sides had to be boarded, and, after a while, many built houses. James then drew Patty and Bertie, hand in hand, putting the name of each underneath, as they would scarcely be recognized without.

By this time the sugar was ready to be eaten, and a grand time they had, eating as long as they could, then watching Mr. Baker and James, as they, with new, bright hoes, stirred or *hoed* the sugar until it was quite white and dry. Then they all rode home.

Bertie thought he should have many more chances to help "sugar off," but his father came for him the next day—two weeks sooner than he expected. Bertie felt sorry to leave his cousins, but they gave him a big butter tub full of sweet consolation, so that he and his mamma would not have the trouble of tapping trees. I think we will leave Bertie just here, but let me say that I expect some new maple sugar in a few days and if you will call you shall have some.

Good Health.

How Vegetation Affects Health.

The English *Gardeners' Magazine* says: Our instinct leads us to delight in flowers. Their beauty and perfume have irresistible attractions for us. We have little dreamed that we were thus led to surround ourselves with objects which most powerfully conduce to health. No doubt there are certain members of the vegetable kingdom which are exceedingly deleterious; for, not to speak of the much dreaded upas, the West India manchineel and some of the American rhus, there are some of our common sweet scented flowers, such as the mezereon, which have very injurious properties. But recent investigation has proved that those adornments of our gardens, for the presence of which we so crave, are as a rule endowed with health preserving qualities. Oxygen, when highly electrified and so rendered especially vitalizing, has in recent times been distinguished by the name of ozone. This is one of the chief elements of a healthy atmosphere. Now, centuries ago it was known that certain plants acted as powerful disinfectants. Thus Herodian tells us that, when in the second century the plague raged in Italy, the physicians recommended those who crowded into Rome to go to Laurentum, because there the sweet bay tree (*Laurus nobilis*) grew in great abundance, and the inhalation of air impregnated with its odors was a strong preservative against infection. And the disciples of Empedocles were wont to grow aromatic and balsamic herbs around their dwellings, from the belief that they were thus guarding themselves against fevers, agues and such like. Has not, too, among us the tradition of its fever dispelling power given the name of feverfew to one of the strongest scented of the compositæ? Recent investigations, especially those of Prof. Montegazza, of Padua and Dr. Cornelius Fox, have shown that these old ideas were based on scientific truth. It is now ascertained that the quality of ozone is materially increased by the exposure to the rays of the sun of various plants, among which the most common are the lavender, musk, cherry, laurel, clove, fennel, narcissus, heliotrope, hyacinth and mignonette. It is interesting to know that the sunflower, which will grow almost anywhere, and could be turned to various useful purposes, is one of the most valuable of sanitary agents, since not only is it ozoniparus, but also destroys deleterious miasmata. It should be noted as a further proof of the good influence of plant culture on health, that while the manufacture of ozone is an independent work carried on by the flowers alone, the green leaves are performing their sanitary function by extracting carbonic acid gas from the atmosphere, and helping to reserve that proportion in its elements which makes it healthful. More remarkable perhaps than all is the encalyptus, of which we have recently heard so much, and of which we shall soon know more. Thus the cultivation of flowers is a work not merely delightful and humanizing in itself, but one which, in a way most beautiful and picturesque, confers a positive benefit on society, so great that it can hardly be overrated, especially in large towns where there must necessarily be so much to poison and deteriorate the air we breathe. It may be added that the sunflower thrives even in the heart of London, and that it is readily propagated from seeds sown in March or April. It is nearly allied to the common Jornsalem artichoke, which grows in the smokiest of districts.

Domestic Economy.

How to Set a Table.

In answer to a question, a lady writer for the New York *Tribune* gives the following directions for "setting a table" and table etiquette generally. She writes: There is no surer test of refinement in persons or families than the manner and style in which their food is served and eaten. Absolute and thorough cleanliness is the first requisite in the preparation and serving of food. Next to that may be placed taste and judgment in the arrangement of the table and the succession of courses. But, leaving all side issues, let us attend simply to the question in hand, "How to set the table." In the first place the sides of the table should be parallel with the sides of the room. It is simply distressing to a person with an eye to symmetry to have the table "askew." In the next place the tablecloth, which should be clean, white and nicely ironed, must be put on so that the middle of the cloth will be in the middle of the table and the folds of the cloth be parallel with the sides of the table. The plates are usually placed around the table and turned down to prevent any dust or other defilement from soiling them. Often, however, when they have been in the warming oven they are placed in a pile before the host, and after being served, handed to each guest. At the right of the plate, at right angles to the side of the table, is the knife, with the edge of the blade turned from the plate; parallel with that is the fork, with the tines turned down. The handles of the knife and fork are an inch or two from the edge of the table. Parallel with the edge of the table at the side of the plate opposite the guest is the spoon, with the bowl turned down. The napkin is sometimes placed at the right of the fork, sometimes on the plate, sometimes folded in fancy style and put in the goblet, but all the napkins on the table are in the same respective position. At the right-hand corner of the plate is a little butter receiver, of glass or of china, and a salt collar. All the butter plates are in line, all the salts in line; so of the glasses or goblets, which are near the salts. In the center of the table is the caster, or in its stead a vase of flowers or fruit. On one side of these stands the butter; on the other sauces in bottles, pickles and relishes. In the walter at the end of the table occupied by the hostess, at her right, are coffee cups and saucers, at her left those for tea; the slop-basin and milk pitcher are at the left, the cream and sugar basin at the right. The tea and coffee are served in urns or pots and placed in front of the hostess. In this position they are not likely to burn the hands of the one at the right of the hostess. Bread is placed at the left of each plate, or laid on the plate, or nicely cut in slices and set on a bread plate at each end of the table. Soup is always served by the host. Fish is also served by the host, unless there are two kinds, when he serves the boiled fish and the hostess that which is fried. At the top of the table is placed the roast, at the bottom the stew. Where there is but one principal dish it is served by the host. If there are three, one is placed before him, the others opposite each other near the bottom of the table. Vegetables and other dishes occupy positions between the principal dishes. As each dish is set on a mat, and if for a time removed and returned to its place again, the table once properly set is easily kept in order till the repast is over.

Puddings and pies are generally served by the hostess. It is a good plan in teaching children and servants how to set a table to draw a diagram of the table with all the dishes in place and write down the names so that everything will be plain. Paste this on the inside of the closet door and then offer a suitable reward for perfect conformity of the table to this plan. The point to be made is uniformity in setting the table, that everything shall be precisely in its place every time. The very look of a well-set table is appetizing, and when, in addition to this, the air of the dining room is sweet, the walls are pleasantly decorated with pictures, the chairs are comfortable, the hostess is lovely, sweet-voiced and hospitable, the most languid appetite is stimulated and every sense is gratified. The table may be decorated with flowers or fruit, one or both. If there are neither, napkins of delicate tints relieve the white. They may be placed in the broad tray or the cake basket, though white is usually preferred. In some of the best families of the South, breakfast and tea are always served without a cloth, on a handsomely-polished mahogany or black walnut table. Under each plate is a napkin fringed and worked in cross stitch with scarlet cotton where the fringe ends. Mats of white crochet with scarlet edges, receive the dishes and contrast with the dark brightness beneath them.

Cauliflower.—Soak the head two hours in cold salted water, and boil till tender in plenty of water. Have the water boiling when you put in the flower. Pour off the water and add a cup of cream or milk. Rub together a teaspoonful of butter and a large spoonful of flour. Stir into the milk, season as you like, and let all boil up together for five minutes and serve.

Oat Meal and Graham Gems.—Mix equal parts of fine Irish oat meal and graham flour into a thick batter with milk and water equal parts, fill hot gem irons and bake with a brisk heat. Very sweet and tender.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, May 13, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Tonnage; Important Land Decision; Cathedral Rocks; Peavines for Hay; Thoroughbred Cattle Drawings, 305. The Week; The Commercial Method in Agriculture; Our Woolen Products at the Centennial; Dairymen's Meeting, 312. Subsidies to Railroads; Mt. Hamilton; Opening of the Centennial Exhibition; Patents and Inventions, 313.

ILLUSTRATIONS.—Cathedral Rock, Garden of the Gods, Colorado, 305.

CORRESPONDENCE.—A Visit to the Petrified Forest; Farmers Selling Out, 306

BEES.—Swarming and Foul Brood; Raising Queens, 306.

SHEEP AND WOOL.—Long Wooled Sheep, 306.

THE DAIRY.—The Cow in California, 307.

HORTICULTURE.—Orange Growing in the South, 307.

THE VINEYARD.—American Vines for Europe, 307.

THE HORSE.—Rysdick's Hambletonian, 307.

PATRONS OF HUSBANDRY. — Stanislaus County Pomona Grange; The Warehouse and Business Association at Martinez; Notes from Fresno County; From the Granges; Election of Officers; In Memoriam, 308.

AGRICULTURAL NOTES from various counties in California, 309.

HOME CIRCLE.—The Two Homes (Poetry); Farmers' Wives and Husbands; Funny Experiment with Restless Children; Visiting; A Plea for Cleanliness; A Royal Sewing Society; A Connecticut Wedding Fee, 310-11.

YOUNG FOLKS' COLUMN.—Letters to Boys and Girls—No. 13, 311.

GOOD HEALTH.—How Vegetation Affects Health, 311.

DOMESTIC ECONOMY.—How to Set a Table; Cauliflower; Oat Meal and Graham Gems, 311.

USEFUL INFORMATION.—Novel Cork Leather; Uses of Mustard Seed Oil, 314.

THE GARDEN.—Growing Onions on Tule Land, 318.

NEW ADVERTISEMENTS.

Extras, Linforth, Kellogg & Co., S. F.; Rupture, Dr. Rowe, S. F.; For Sale, James Drace, Linden, Cal.; Spanish Merinos, B. F. Watkins, Santa Clara, Cal.; Hats, C. Hermann, S. F.; Agricultural Implements, Price Press Co., S. F.

The Week.

The stirring event of the week throughout the whole country is the opening of the grand display at Philadelphia, of which we present a telegraphic report in another column. The report tells us that the President of the United States turned on the steam which set 14 acres of machinery in motion. It is a grand thought. It stirs the blood to think of such an expanse of useful machinery sounding the note of industrial and mechanical progress. But need we go to Philadelphia to gain material for a stirring thought? No. Right at our doors, in our magnificent grain fields, will soon begin a motion of valuable machinery, which, if we collect into a single thought the thousands of our harvesters and the varied machines they employ, will far surpass the figures of the Philadelphia action, whether the computation be made in dust or dollars. Yes, we are content that the nation should revel in the grandeur of the industry symbolized in Philadelphia. We are proud of it, too, and we are doubly happy in the year. While amid the hardship and depression at the East, (which we most sincerely deplore), they are looking toward Philadelphia, if perchance its occasion may cast some enlivening influence upon their clouded industries, we, from out the grandest prosperity and promise, look abroad upon the coast, and in the activity here displayed, see reflected all the life and industry which fills those Eastern halls. The Centennial is advanced as an occasion for rejoicing. We have then two Centennials, one here, the other in Philadelphia.

The Commercial Method in Agriculture.

The promise is that California farm figures will look well this year. There will be many cental of grain and many boxes of butter and cheese and fruit, and many sacks of vegetables. There will also be many pounds of wool and hops, beef and mutton. In short, the outlook is that the farmer who keeps a correct account of his products this year will either be obliged to use a book with long pages, or else write his figures small and near together. We are glad that the promise is thus, for we have a few remarks to make concerning the value of the commercial method in agriculture. We would apply our remarks both to the general system of farm policy and to the special accuracy of farm book-keeping. It is well for our sermon that our audience have thickly covered fields and heavily laden trees. We can conceive of nothing more dismal than addressing farmers who have no crop on the subject of liberal investment in soil improvement, or explaining the advantage of keeping accurate accounts of production, when the result of the season's work is nothing but long grocery bills. It will not be so this year, therefore we write.

We have introduced something which we name the "commercial method," because the world consents to call that method 'commercial" which is very wise in its way, which is charged with sharp insight into causes and effects within its sphere, which bends all its ability and enterprise to the success of its endeavors. It is that style of doing business which not only puts in brains and time and labor to gain success, but also puts in money as a wise investment and draws ever increasing rewards by the improved and increased results which are attained. This method, which is characteristic of the greatest success in the mercantile, commercial and manufacturing branches of industry, we would apply to agriculture. California has perhaps the brightest examples in the world of the truth which we would impress. Let these serve to strengthen our general remarks.

With this year's large crops there will be grand surpluses in the hands of many of our agriculturists. Shall it be put into doubtful stocks or bonds? Shall it go to city banks and be loaned to build up enterprises of questionable usefulness? Shall it be showered into the city to foster further the growing tendency to prodigality and useless glitter and dangerous extravagance? We say, no. Rather let every farmer who has a surplus prepare to invest it wisely in his farm. The farm earned it; let the farm be improved by it. The land will smile its appreciation of the gift in each succeeding fruit crop or grain harvest or pasture growth.

The farm as an enterprise to invest money in is not generally understood. Profitable investment does not cease when the land is paid for. The farm, when the title is sure, is the best bank in the world for the farmer's surplus. Every wise improvement adds to the value of the farm far more than the cost of making it. First, there is the investment which increases and perpetuates fertility. The system of farming which sells something from the farm every year and invests the surplus money in hazardous enterprises elsewhere, would be like a style of shopkeeping which would sell goods, day after day squandering the receipts, until, with no money or credit to replace his stock, the shopkeeper chops up his shelves to keep him warm and goes out penniless. The farmer who does not regulate his system so that the strength and fertility of his soil can not only be maintained but increased from year to year, has no commercial wisdom. The farm offers him no future; it promises his children nothing. Are these pleasant reflections? The investment of money in the improvement of agricultural lands has proved profitable in nearly all of the older countries. It can be demonstrated in the plainest figures that greater profits have been gained by the labor and expense of better cultivation and fertilizing—not only an increase of profit equal to the cost of gaining it, but yielding a percentage above the cost, thus proving the investment a success. Not otherwise is the result from investing surplus money in improving stock, and thus it has proved through all the range of improvement, from the betterments of buildings through all the lines of farming industry to the trees which cheer by their fruit and those which refresh with their shade. Nor must we forget the improvement of the home, the profitable investment in those things which foster comfort and culture and spread the domain of intelligence. If a man care for his own comfort and the joy of his household, let him not forget to make a wise investment of a part of his surplus in the improvement of his home.

The employment of the commercial method means then to look upon the farm as an enterprise in itself, an enterprise to be promoted and improved. It is just as feasible to develop a farm as a mercantile industry, and both can be accomplished by the same spirit of belief in their future and by giving each a chance to grow and improve with a part of its own earnings and successes.

No aid will be found so valuable to the farmer who is possessed of the idea of improving his system or his property, as an accurate record of the cost and profits of various crops and animals. This is essential if a farmer would make wise and intelligent investment in farm improvement. He cannot improve definitely until he has an accurate idea of what he is doing, what things cost him and what he gets for them. But knowing these things he has a fund of valuable and accurate experience which will teach lessons of golden profit in all subsequent operations.

Our Woolen Products at the Centennial.

There are several localities in our State which are now agitating the subject of building woolen mills. A general thought is that it is a bad time to think of extending the production of woolen goods, because in the great manufacturing centers there is wide spread depression. And yet this depression bears most severely on us as wool growers. It crowds down the price of the raw material, so that the expenses of handling and transportation cut mighty close to the pelt. As matters now stand there is little encouragement to the wool producer. Under such conditions there arises the suggestion of the policy of home manufacture. The plain deductions from the proposition are the advantage of supplying our own need for woolen manufactures, the advantage of exporting product of concentrated value into which the worm of expensive transportation cannot penetrate so far as into raw material; the advantage of building up a larger industrial population which shall increase our home market for food products. All these things promise well toward the greater success of our agriculture. Movements of this kind cannot be prosecuted without capital, and we look with favor upon any undertaking which promises to bring to the notice of outside capitalists the opportunity which exists in this State for profitable investment in manufacturing enterprises. As capital in the great centers is unproductive it will naturally be disposed to seek more promising fields. There can be no more forcible evidence of the fitness of our State for manufacturing than the exhibition of actual accomplishments. For this reason we are pleased to mention the display which the Mission woolen mills will make at the Centennial. This establishment has paid out no less than $3,000 to build an inclosure for their goods, and will be at the additional expense of supporting an agent during the continuance of the Centennial, to keep them in charge. The mills have confined their selection to blankets, variegated carrige robes and horse-covers, confident that in these branches they have nothing to fear in the way of competition from any part of the world. Of the first named there are 150, of graded sizes, manufactured from the finest of Saxony wool, whose magnificence will be something for Californians to be proud of. One of the number is woven into the pattern of the American flag; another contains a shield embroidered in threads of gold and other brilliant colors, the needle work on which amounted to $150; and a third bears the ornament of a crown in its center wrought in threads of gold. There is also a blanket bearing silver embroidery, symbolic of the State of Nevada, while the great bulk of the display will be plain white blankets, depending upon the fineness of their material and excellence of their fabrication to bear off the prize for which they are competing and which they are almost certain to take.

These splendid samples will show what California can do in this line of woolen manufacture. The products are original, unsurpassed in their quality and design, and characteristic of our State. As they have the element of life and originality, they will invite attention, not only to their own excellence, but to manufacturing fitness of a region which can produce them, and will, we trust, be effective to draw capital for investment in several localities of the State, which are desirous of woolen manufacturing establishments.

PERSONAL.—We have been favored with a visit from Hon. W. Schley, of Savannah, Ga., President of the Georgia State agricultural society, and for six years a subscriber of the RURAL PRESS. Judge Schley is making a flying visit to our State, and is examining our agricultural resources with an acute eye, as we learn from his conversation. He confesses to views which please him greatly, and will return well impressed with our agricultural quality and achievements. We hope after he has made his observations he will favor the readers of the PRESS with the lessons of his tour. He is a thorough and cultured gentleman as well as an enterprising agriculturist, and we hope that his promise to visit us again in the fruit season may be fulfilled.

J. B. Hewett, a patron of the PRESS, who has been located for a few years at Haywood, Alameda county, has moved his household gods and some fine Short Horn cattle which he has lately purchased, to embark in agriculture in Washington Territory. He is bound for Seattle, but is not certain where he will locate. We hope to hear of his success in his new field.

ON FILE.—"Botanical Excursions," J. G. L.; "Agricultural Education in Germany," J. W. A. W.; "Yuba City Grange," M. F. H.; "Salida Grange," V. E. B.; "Nicasio Grange," T. W. M.; " Visit to Yountville Grange," J. V. W.

Dairymen's Meeting.

We print below the formal call for a meeting to organize a "California State Dairymen's Association," with the signatures attached in the order in which they have been received up to our time of going to press, Wednesday evening:

To Dairymen.

Believing that an organization of California dairymen will be useful in devising measures for the promotion of the dairy interests of the State, valuable for improving dairy methods, practices and appliances, and effective in securing to dairymen increased profits, by gaining more equitable rates of transportation, better care of the product in transit, and less oppressive charges generally in marketing, we, the undersigned, beg to call a meeting of dairymen in the Produce Exchange, corner Clay and Davis streets, San Francisco, on Thursday, May 18th, at noon.

We urge upon all the dairymen of the State to join us at the above named time and place for the purpose of organizing a dairymen's association, in order that we, as dairymen, may act together for our good and that of the industry in which we are engaged.

Jno. A. Stanley	Oakland
Killam & Rutherford	San Antonio
Jos. Davidson	Hicks Valley
Arch. Gammell	San Antonio
Chas. Webb Howard	Oakland
Henry Page	Sonoma
Wilfred Haze	Sonoma
E. A. Davison	Gilroy
Samuel Rea	Gilroy
Reeve Bros.	Gilroy
James Rea	Gilroy
Alexander Watson	Gilroy
David Zuck	Gilroy
S. M. Maze	Gilroy
R. Eschenburg	Gilroy
A. Willson	Gilroy
Jesse D. Carr	Salinas
John S. Carr	Gabilan
H. P. Livermore.	San Francisco
T. B. Crandell	Point Reyes
T. J. Whaley	Point Reyes
A. H. Kayser	Point Reyes
A. H. Stinson	Point Reyes
H. Claussen	Point Reyes
Abram Huff	Point Reyes
Wm. N. Shafter	Point Reyes
N. H. Stinson	Point Reyes
R. G. Sneath	San Francisco
A. Maillaird	San Rafael

In addition to the signatures above, we are informed of many more which our friends in the different dairy regions have advised us of, but which have not come to hand in time to print this week. The late comers will give strength to the meeting by their presence on May 18th.

The proposition for an association meets with general favor among the dairymen. The San Luis Obispo *Tribune* contains a call for a meeting in that place, May 14th, to choose delegates to the meeting of the 18th. This is a good plan and we trust every dairy locality will send representatives in order that the society may take such action as all will approve and support. The strong endorsement of the association by the Sacramento *Record-Union*, which we print in another place, is especially interesting because of the able review of the dairy progress of the State which precedes the call for the meeting. We learn from our correspondents that the association is hailed as a possible benefit in many parts. The attendance at the meeting promises to be representative, and we trust that all dairymen who can visit the city on the 18th will not fail to come to the rooms of the Produce Exchange, corner Clay and Davis streets, at noon.

We would suggest that every dairyman who attends the meeting will come prepared to state the actual condition of dairying in his locality; the number of dairies, the whole number of cows, the fitness of his locality for dairying—in short, collect all interesting information of this kind in order that the reports of the meeting may contain many valuable facts concerning the extent and condition of dairying in the State. We hope also that all will come prepared to mention matters which need correction and improvement, in order that all may see the directions in which the society can work for the benefit of dairy producers.

SUGGESTION FOR FARM BOOK-KEEPING.—A practical farmer writes to an Eastern agricultural paper some valuable suggestions as to one method of keeping farm accounts: Having provided a suitable blank book, upon the first page let there be drawn an accurate map of the farm, showing the several fields in their relative relation, giving length and breadth in rods, showing what particular crop was grown in each, at date. Then upon the left hand page, having ruled it for the purpose, make a complete and accurate inventory of the value of the farm, live stock, roots, grain, fodder, fruit, farming implements, etc., which, footed up, will give the total amount of farming investment. To this should be added value of provisions, groceries, fuel, etc., household furniture, shares bank stock, bonds, bills receivable, accounts due and cash on hand. From the sum total deduct debts, and the balance will be net worth. This, compared with the same of the preceding year, will give net gain for the year. The book should also contain other items, such as cash, farm and family accounts, memoranda accounts with stock and crops, betterments and deteriorations, accounts with individuals, agreements with hired help, summary of stock and crop details. And last, though not least, notes of mistakes and mismanagement; also of good resolves, etc.

Subsidies to Railroads.

In the House of Representatives, April 8th, one of our California congressmen, Hon. W. A. Piper, made a stirring speech on the impolicy of subsidies to railroads. He considered in detail the evidence which is at hand that the great railroad corporations which were favored with great grants of land because it was regarded that their enterprises were grand internal improvements for the public good, have resulted in the enriching of a few men and the oppression of the people. His speech is a severe arraignment of the ring of individuals who have employed the bounty of the government for their own enriching, and concludes with a vigorous protest against disposing of any more of the public domain that it can be pocketed by other grasping schemers. The concluding paragraphs of the speech are subjects for careful consideration. We quote them as follows:

Under the unwise system of subsidizing corporations, the gift of land is, I think, tentold less defensible than that of money. Land is a necessity for animal existence, and legislation which gives such vast domains to a few corporations must be destructive of the very highest interests of the people and government.

Since 1861 there has been legislated into the hands of corporations a tract of nearly 235,000 square miles of territory—a domain larger than France or the German Empire, over five times greater than Pennsylvania, six times as large as Ohio, and three times larger than the island of Great Britain. This immense territory has been granted to five corporations, yielding to each one an average of more than the area of the Empire State.

One shudders involuntarily at the contemplation of such vast possessions being in the bands of five soulless corporations—possessions sufficient to support a population of 40,000,000. This land at $2.50 per acre would produce the immense sum of $275,000,000. What have we got in exchange for this spoliation of the people's patrimony? Three thousand miles of single track railway run in the interest of these greedy speculators, without any restrictions as to charges for freights and fares. Say what you will, this is a robbery of the people's birthright, and it was criminal to have given it to these pampered favorites of the party that has controlled the government for the last 15 years. In addition to all this, the Government has given them $65,000,000 of bonds for 30 years without the payment of interest as it becomes semi-annually due.

I now quote the following from Attorney General Pierrepont's brief in the case of the United States *vs.* the Union Pacific railroad:

At the end of 30 years the government will have paid out $318,000 000 in interest alone, because it must be borne in mind that it is compounded every six months for the term of 30 years.

This is a fact proven by figures; and yet the Central Pacific, which will be indebted for half this amount, as owner of the Southern Pacific, has the audacity to ask for more land to build the road farther East to head off the Texas Pacific, thereby preventing the construction of a competing line and binding more firmly the shackles of steel upon the people of the western coast of the Republic.

As to the great evils that have grown out of this system of legislating the public lands and moneys into the hands of a few speculative corporations, I presume no one will doubt; and as a remedy to some extent, in my judgment, the house should pass bill No. 1,033, which provides for the restoration to the public domain of all lands that have lapsed by reason of the non-fulfillment of the conditions of the grants, and forever put an absolute stop to any further concessions of public lands for any other than settlement and homestead purposes.

The construction of a competing line between the Atlantic and Pacific coasts is no doubt very desirable, and no one longs for it more than I do; and if this becomes an absolute necessity, in the name of common honesty do not, as in the past, give double the amount necessary in money and land to some grasping corporation to build the road to be used for private advantage and as another source of public corruption.

In my judgment it is the duty of Congress, and the nation demands it of us, to remedy these evils, and to wrest as far as possible from these public spoliators their ill-gotten gains. Their defenders, it is true, intrench themselves behind the statutes, but they may find that the law makers are stronger than the law-interpreters. The very acts granting to the railroads these vast subsidies of land and moneys have made reservations that may be legitimately used to coerce them to observe a decent respect for the rights of the people and government, the courts to the contrary notwithstanding. Let their directors attend to their duties to the country instead of hovering around these halls and those of State legislatures like birds of prey in order to retain what they have fraudulently acquired.

The directors of these roads must submit like other citizens to the laws; they must cease trying to be masters of the people, and must cease setting themselves above the government, or ere long they will find a power greater than the courts that will resist their tyranny to the death—the power of the people, who in their anguish and might will rise and sweep them together with all their ill-gotten gains from the face of the earth.

Mount Hamilton.

The site of the Lick observatory—to be built from the donation of $700,000, by James Lick, of San Francisco, is on the crest of the above named mountain. Its elevation is 4,350 feet above the sea level. It is distant, southeasterly, from San Jose, a trifle over 25 miles by road, and perhaps 18 miles in an air line.

Last week, by the kindness of our excellent friend, Mr. S. P. Sanders, landscape photographer, of San Jose, we made a very enjoyable trip to the summit of this soon to be famous mountain. Following the grand avenue leading to Alum Rock, four miles, we come to Lick avenue, branching off to the right and extending to the very pinnacle of Mt. Hamilton. The maximum grade is one foot in sixteen. When finished it will be entirely macadamized, and a "spanking team" can be driven at good speed over the entire route. Gradually rising the hills which overlook the San Jose valley, we pass over the ridge into Hall's valley—a magnificently appearing meadow at this season. Then we climb a higher ridge, overlooking valleys and ordinary mountain tops, and with a slight descent enter a delightful glen, through which passes Smith creek—a sweet water river as clear as crystal. This place is seven miles from the summit by the grade. We reached it by trail in less than four miles. Below, the views are delightful and grand, but approaching the summit they rise almost to sublimity. The gradual winding upward by the road will afford the tourist a scene of lingering enchantment. Crossing the breast of the mountain in five zigzag lines, the road gives a final sweep around the crown, bringing the traveler upon the very crest of the pinnacle, unfolding to him in the near foreground mountains of little less magnitude but equally grand and bold, and in the distance, east and west, the larger valleys, the ocean, and the Sierra Nevada. The ever-varying hills and valleys are at this season of the year rendered more than usually beautiful by their green and brilliantly flowered covering, A few rods east of the highest pinnacle is a point of very perfect echo, which will afford much interest to visitors. Easy of access, just northerly, are other peaks which will also attract attention. We do not believe the people of San Jose are yet aware of the importance of their public spirit in constructing this grand and free highway to the hill of science that the God of nature so kindly set up and Mr. Lick has so grandly brought to light upon the very borders of their beautiful garden city. Of all the noble bequests made by James Lick, none, we believe, will ever afford his name so many pronounced blessings as the work herewith mentioned.

Several miles of the road are yet to be completed by the contractor, Mr. Derby, who has to his credit pushed his work forward with great zeal. A grand Centennial Fourth of July celebration would not be inappropriate on the completion of the Lick avenue.

As we are personally informed of the manner in which Mt. Hamilton received its title, we would here add that it was named by Prof. W. H. Brewer, of the late State geological survey, after his intimate and personal friend, Rev. L. Hamilton, of Oakland. Prof. Brewer, while stopping at San Jose with Mr. Hamilton, invited the latter to accompany him on a geological excursion, during which Mr. Hamilton was the first of the party to visit this mountain, leaving marks of his visitation. Mr. Hoffman, of the surveying party, now in this city, will verify this statement.

Injurious Insects at Washington.—A correspondent of the *Russian River Flag* has lately made an examination of the Department of Agriculture at Washington. Among many interesting things he notes the work of the entomologist, and we quote a paragraph in case any of our readers should find a pest which local authorities do not understand. The correspondent writes: Prof. Glover's specialty is the study of insects. In the cases of the room where he presides you may find everything which crawls or flies or hops. The farmer who finds his crops injured by some unknown marauder has only to watch until he secures a specimen of the little pest. Let him send this to the Department with a statement of its ravages and he will receive an account of the creature's habits, of the circumstances under which it thrives and of the agencies which can be employed for its extermination. In addition to all the actual bugs, appropriately impaled and classified, Prof. Glover has engraved their portraits upon copper as perfectly as if the sun had photographed them, and these plates have been prepared and so accurately numbered that a single glance will show the result of years of investigation.

Heavy Merino Fleeces.—We were shown during the week by L. G. Stansfield several fleeces of fine wool shorn from his flock of Spanish Merinos. One of the fleeces was from a ewe one year old which had been shorn once before, the other two were from yearling ewes, six months' clip, one of which weighed eight and the other eight and one-half pounds. A five months and two weeks' clip from the ram Seville weighed 15½ pounds. Had he been shorn clean the clip would have turned the scales at 17¼ pounds. Seville cost Mr. Stansfield $300 when a year old.—*Ventura Signal.*

The Opening of the Centennial Exposition.

Just before we go to press on Wednesday, May 10th, there comes by telegraph the report of the successful opening of the Nation's Grand Centennial Commemorative Exhibition at Philadelphia.

The gates were opened a little after 8 o'clock, and crowds continued to pour in until it was estimated that 50,000 people were on the grounds. The ceremonies opened at precisely 10:15 A. M., the national airs of all nations being performed by a large orchestra.

A spacious platform had been erected at the side of Memorial hall, north of the center of the building. Seats were arranged on the platform for officials and other invited guests. At the right of the center were seats for the President of the United States and members of the Cabinet, and further to the right seats of the United States Senators and members of the House of Representatives, Governors of various States, etc. On the left center were seats of the United States Supreme Court, and further to the left, seats for the Diplomatic Corps and members of the Centennial Commission, Board of Finance, Woman's Executive Committee, Foreign Commissionors, Mayor, Council and other officials of Philadelphia; Mayors of other cities, State Centennial Boards, Boards of Awards, Judges, yacht and rifle clubs, and along the front of the platform were seats for members of the press. The orchestra of 150 pieces, and chorus of 1,000 voices, under the direction of Theodore Thomas and Dudley Buck, were stationed directly in front of the platform.

As the Empefor of Brazil and party came to the platform they were loudly cheered, and the orchestra played the Brazilian national hymn.

At 10.48 the signal was given for the music to stop, and five minutes later the President, escorted by General Hawley, advanced to the front of the platform and was loudly cheered. The orchestra then played "Hail to the Chief," during which time the President shook hands with the Emperor and the Emperor's guests.

At 11:30, Wagner's Centennial Inauguration March was performed by the orchestra. At the conclusion of which Bishop Simson offered a prayer, during the rendering of which a majority of the vast assemblage stood with uncovered heads.

At the conclusion of Bishop Simpson's prayer, Whittier's hymn was sung with grand effect, eliciting loud applause. It is as follows:

Hymn by John Greenleaf Whittier.

Our fathers' God, from out whose hand
The centuries fall, like grains of sand,
We meet to-day, united, free,
And loyal to our land and Thee—
To thank Thee for the era done,
And trust Thee for the opening one.

Here, where of old by Thy design
The fathers spake that word of Thine,
Whose echo is the glad refrain
Of rended bolt and falling chain,
To grace our festal time from all
The zones of earth our guests we call.

Be with us while the New World greets
The Old World, thronging all its streets;
Unveiling all the triumphs won
By art or toil beneath the sun,
And unto common good ordain
This rivalship of hand and brain.

Thou who hast here in concord furled
The war-flags of a gathered world,
Beneath our Western skies fulfill
The Orient's mission of good will,
And, freighted with love's golden fleece,
Send back the Argonauts of peace.

For Art and Labor met in truce,
For Beauty made the bride of Use,
We thank Thee, while withal we crave
The austere virtues, strong to save,
The honor, proof to place or gold,
The manhood never bought nor sold!

O make Thou us through the centuries long
In peace secure, in justice strong;
Around our gift of freedom draw
The safeguards of Thy righteous law,
And, cast in some diviner mold,
Let the new cycle shame the old.

After the singing of the opening hymn, Mr. Welch, President of the Board of Finance, presented the buildings to the United States Commission in an appropriate address. General Hawley, President of the Commission, followed in an address, and closed by presenting the exposition to the President of the United States. Then followed

The Address of President Grant:

My Countrymen: It has been thought appropriate upon this Centennial occasion to bring together in Philadelphia, for popular inspection, specimens of our attainments in industry, the fine arts and literature, science and philosophy, as well as in the great business of agriculture and of commerce, that we may the more thoroughly appreciate the excellencies and deficiencies of our achievements and also give emphatic expression to the earnest desire to cultivate the friendship of our fellow members of this great family of nations. The enlightened agricultural, commercial and manufacturing people of the world have been invited to send thither corresponding specimens of their industries to exhibit on equal terms in friendly competition with our own. With this invitation they have generously responded. For so doing they have our hearty thanks. The beauty and utility of the contributions will this day be submitted to your inspection by the managers of this exhibition. We are glad to know that a view of the specimens of skill of all nations will afford to you unequaled pleasure, and yield to you a valuable practical knowledge of so many of the remarkable results of the wonderful skill existing in enlightened communities. One hundred years ago this country was new and but partly settled. Our necessities have compelled us chiefly to expend our means in felling the forests, subduing the prairies, building dwellings, factories, ships, docks, warehouses, roads, canals, machinery, etc.; most of our schools, libraries and asylums have been established within 100 years. Burdened by these great primal works of necessity which could not be delayed, we yet have done what this exhibition will show in this direction and rivaling the older and more advanced nation, in law, medicine and theology, in science, literature, philosophy and the fine arts.

Whilst proud of what we have done, we regret that we have not done more. Our achievements have been great enough, however, to make it easy for our people to acknowledge superior merit wherever found.

And now, fellow citizens, I hope a careful examination of what is about to be exhibited will not only inspire you with a profound respect for the skill and taste of our friends from other nations, but also satisfy you with the attainments made by our own people during the past 100 years. I invoke your generous cooperation with the worthy commissioners to secure a brilliant success to this international exhibition, and to make the stay of our foreign visitors, to whom we extend a hearty welcome, both profitable and pleasant to them. I declare the international exhibition now open.

After the address of President Grant the "Cantata" of Mr. Lanier, which we printed last week, was rendered with fine effect.

After the ceremonies in the memorial hall, the line of march was taken to the machinery building. President Grant opened the valve of the great Corliss engine and the whiz and whirl of 14 acres of machinery sounded the refrain to the cadences of the orchestra and the periods of the orator and the exposition began its course.

The Price Baling Presses.—For the first time we permit one of our manufacturing companies to occupy the space of two full pages in speaking to the farmers of the Pacific coast of the merits of their California inventions and home manufactures. We allude to the Price press manufacturing company. Mr. Price has given his personal and almost constant attention for a period of more than 12 years to the improvement of agricultural machinery adapted to the special needs of the Pacific coast farmers, commencing first with what is now famously known as the "Petaluma press." Other presses have been invented, a few showing some good points, but none have reached a degree of excellence sufficient to enable them to take, even temporarily, the leadership from the Price press. Our market reports have, for a single week, been transfered to the fifth page of this sheet, but we think the information set forth to all interested at this season of the year in baling presses in the illustrated card of the Price press company on the 12th and 13th pages of this sheet precludes the necessity of any apology on the part of the publishers for devoting so large a space in one issue to the timely announcement of a single firm.

Sale of Angora Wool.—It is reported that last week Nathan Gilmore, through the house of Thomas Bailey & Co., of this city, sent to Jamestown, New York, about 5,000 pounds of mohair fleece, being one shipment from the clip of his flock in El Dorado county. The price did not reach the expected figure of one dollar per pound, but it only fell 13 cents short of that rate. Mr. Gilmore says the clip of mohair in El Dorado, Monterey, Napa, Santa Cruz, Santa Clara and Contra Costa counties this year will exceed 40,000 pounds. He enthusiastically believes that the industry, which is now in its infancy, will develop and extend until it shall rank with the leading pursuits of the State.

Enright's Straw and Wood Burning Engines are a decided success, judging from the ready sales he has made this season. While visiting his works at San Jose last week we learned that all but four of the twenty engines completed this season were sold, and work would immediately be commenced on another lot in time to finish them for this year's service.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., May 9th, 1876.

For Week Ending April 25th, 1876.

Fever Cots.—George W. Kilhee, Salem, Oregon.

Post Office Letter Boxes.—Elisha T. Barlow, S. F., Cal.

Bottle Covers.—Earl K. Cooley, S. F., Cal.

Kitchen Tables.—Charles H. Townsend, Oakland, Cal.

Pavements.—John B. Wood, Santa Rosa, Cal.

Trademark.

Linseed Oil.—Whittier, Fullor & Co., S. F. Cal.

Useful Information.

Novel Cork Leather.

G. E. Block, of London, Eng., writes: I take sheets of cork, and apply, with a brush, to one side of them a coating of india rubber solntion. When dried, I apply a second coating. I then take a piece of japanned cloth, canvas, thin leather, or other such like fabric, and similarly coat it at the back with two coatings of the solution, and then place the coated surfaces of the cork and fabric together, the edges of the pieces of cork being fitted together neally, so as to form a continuous sheet or layer. The uncoated side of the cork, and also another piece of linen, cotton, or other fabric, are now similarly coated with two coats of the solution. When the coatings upon the cork and linen are quite dry, the coated surfaces are applied together, and the cork, now coated on both of its sides, is submitted to considerable pressure in a press or stamper, or by rollers.

In order to cause the coated surfaces of cork and fabric to adhere firmly to one another, it is better that the pressure should be applied suddenly, as by a blow, or by stamping or rolling. The two coatings of cementing solution which are thus brought together blend and form a perfect skin, which will bend at will, and which can be turned in any way, and yet always return to its original form without breaking.

As each of the coatings of cementing solution has been allowed to dry before bringing them together and submitting them to pressure as above described. the solution will not penetrate the outer surfaces of the fabric or material and spoil their appearance.

Uses of Mustard Seed Oil.

R. Rother, in the *Pharmacist* for April, calls attention to mustard seed oil as being well adapted to the preparation of all the officinal ointments, cerates and plasters, to the exclusion of lard or other glycerides which are changeable and unsatisfactory.

A mixture of three parts of mustard oil, one part of spermaceti, and one part of yellow wax, is in every way superior to the officinal simple ointment. The spermaceti in this mixture is not essential, as three and one-half parts of oil and one and one-half of wax answer equally well. When substituted for olive oil in cerate of sub-acetate of lead, the yellow color disappears after a few days, and the cerate becomes white. The main advantage, however, lies in the fact that the preparation does not become rancid.

Resin cerate, of a superior quality, results from a mixture of 14 parts mustard oil, 12 parts resin and four parts yellow wax.

Ointments containing ingredients liable to change under the influence of lard or olive oil, as, for instance, ointment of iodide of potassium, or rose water, are properly prepared with mustard oil. The ointments of sulphur, carbonate of lead, and oxide of zinc, retain a smooth grain and the appearance of freshness perfectly, when prepared with mustard oil.

Breeders' Directory.

Purchasers of Stock will find in this Directory the Names of some of the most reliable Breeders. Our Rates.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

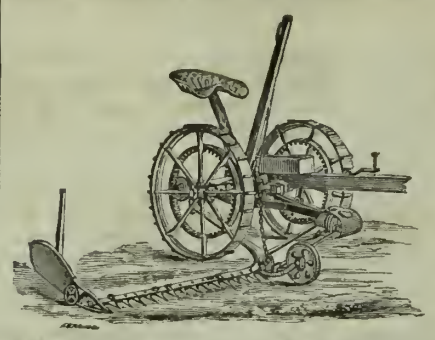
M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS Santa Clara, Cal. Pre-minm Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.



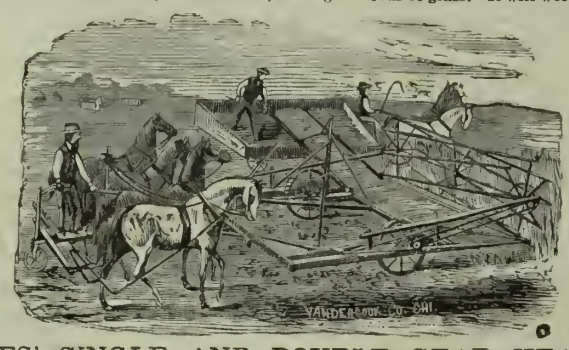
WM. ANSON WOOD'S EAGLE MOWER.

RUSSELL PEERLESS MOWER.

WM. ANSON WOOD'S EAGLE MOWER,

Now acknowledged to be the Leading Mower on the Coast—From its durability and strength, being constructed of Iron and steel, and from the rapidity of its motion, cutting all kinds of grass. It will work on uneven ground.

With Adjustible Reel Iron Wheel.



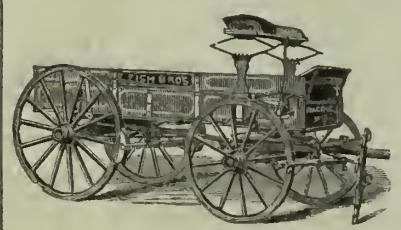
Beware of Imitations. ALSO HEADER DRAPERS.

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

CASE'S SINGLE GEAR IRON WHEEL HEADERS,

WHICH WE WARRANT THE BEST IN THE MARKET.

A Full Supply of Extras for the above Machines Constantly on Hand.



FISH BROS.' FARM WAGON.

FISH BROS. & CO.'S

PACIFIC FARM,

SPRING AND HEADER WAGONS,

The best painted, the best proportioned, the best ironed, and the Best Wagon on Wheels We can sell a BETTER SPRING WAGON FOR LESS MONEY than any firm in California, comprising Two Spring "Specie Basis" and Platform Spring Delivery Wagons; Three and Four Spring Express Wagons, both with plain and Sarven's Best Patent Wheels.

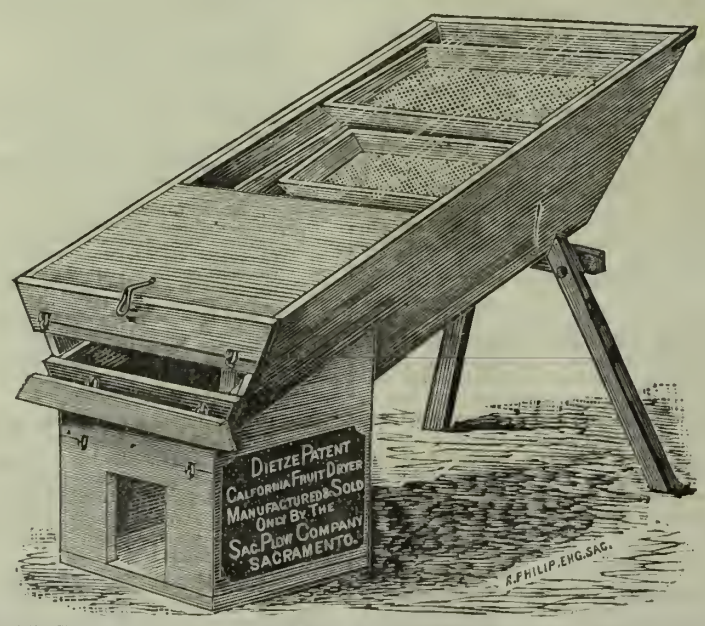
JOS. ENRIGHT'S STRAW BURNING ENGINE.

It burns Straw with an artificial draft, and by means of a Patent Ring Grate, causing the straw to be retained at the grate until entirely consumed, and preventing the unburnt straw reaching the combustion chamber, thereby preventing all choking up of the tubes. Having a combustion chamber, (lined with cast iron staves for protection,) and by which a more intense heat is produced, also admitting a large amount of oxygen, thereby causing complete combustion.

LINFORTH, KELLOGG & CO., - - 3 and 5 Front street, S. F.

CALIFORNIA FRUIT DRYER.

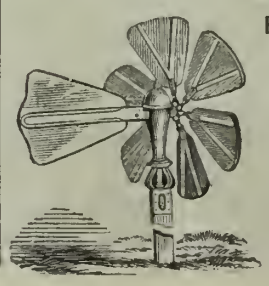
DIETZ PATENT.



Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple n construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,
Sacramento City, Cal.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

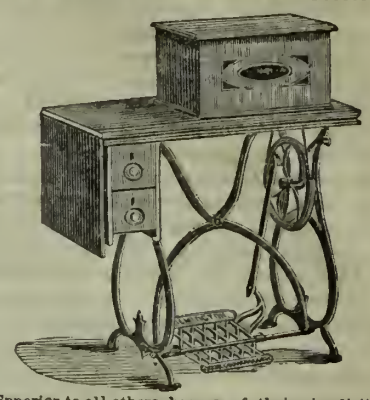
SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

REMINGTON SEWING MACHINE.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel. S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

Live Stock Notices.

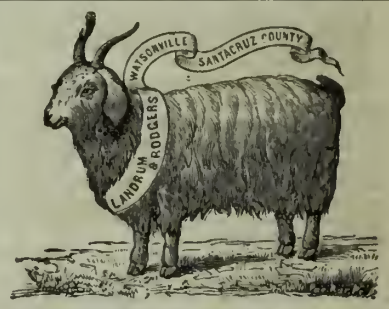
Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.



We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 500 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular.

LANDRUM & RODGERS,
Watsonville, Santa Cruz Co., Cal.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, some fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy five years. ROWLANDS' ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. Rowe Elastic Truss Co., 609 Sacramento St., S. F. Send for Circular.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

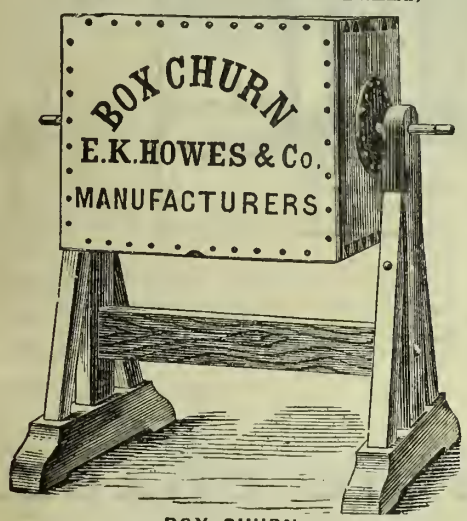
We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL.

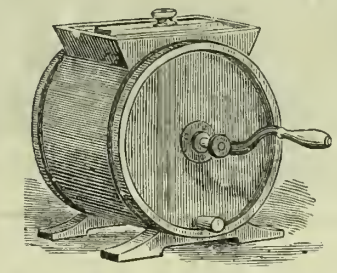
WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

E. K. HOWES & CO.,

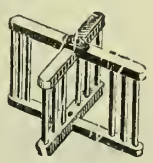
NOS. 118, 120 and 122 FRONT STREET, - - - - - SAN FRANCISCO.

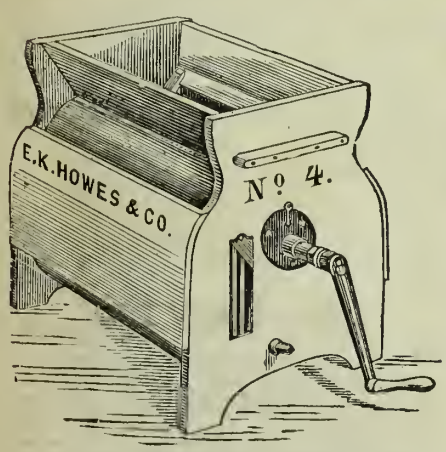


BOX CHURN.

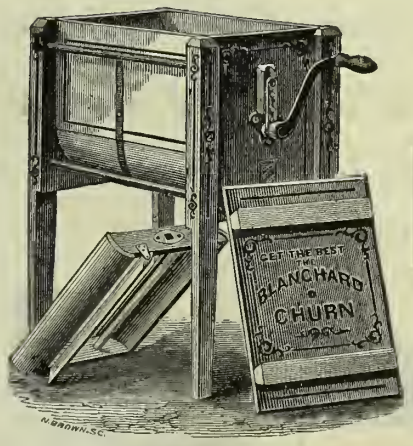


CYLINDER CHURN AND DASHER.





THERMOMETER CHURN.



BLANCHARD CHURN.

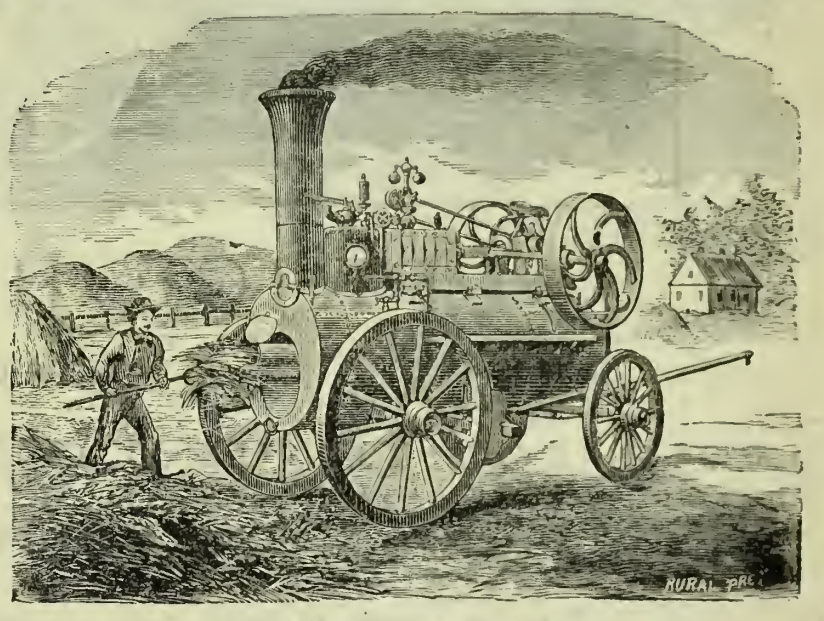
SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers and Molds, Butter Tubs, (35, 50 and 60 Pounds), Butter Kegs—Plain and Gal. Hoops—Wholesale and Retail.

Send for Price-List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the state, and gave the very best satisfacton, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific Coast, and all orders should be addressed to them.

SAN FRANCISCO, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street San Francisco, and corner Second and J Streets, Sacramento.

P36b76tf * MARCUS C. HAWLEY & CO.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

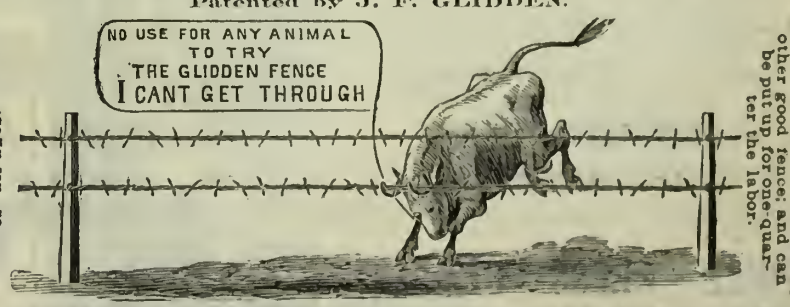
N. GILMORE,

Dorado, El Dorado Co., Ca

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.



The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT FARM WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

FOR SALE.

NEW ZEALAND GRASS SEED

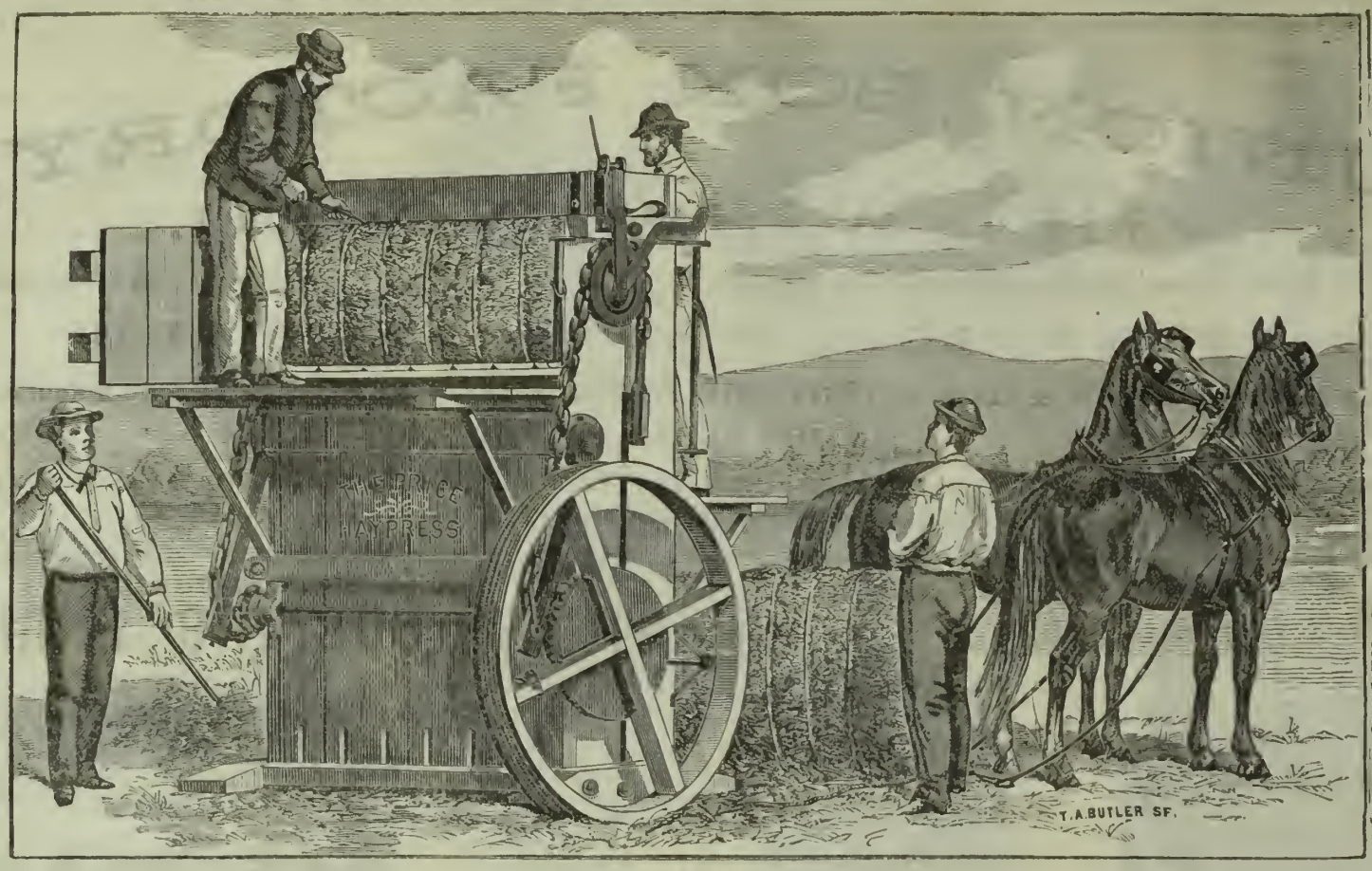
By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

Davis & Sutton, Commission Merchants, For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

The Mining and Scientific Press, Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & Co., San Francisco.

The Celebrated



Petaluma, or

PRICE HAY PRESS,

PRICE, $450.

OVER 500 IN USE ON THE PACIFIC COAST.

Bales Nine-Tenths of the Hay West of the Rocky Mountains.

Has proved itself to be capable of baling twice as fast as any Press in the world made by other manufacturers, having baled on one occasion Twenty-eight Tons Nine Hundred and Seventy-five Pounds in Twelve Hours.

It frequently bales 20 tons per day, and many average 100 tons per week for weeks together. No changes are being made in our Presses this season, because they give full satisfaction as to strength and rapidity, as they now are. We have not had a call for a single Extra on the last 100 Presses made. This is due to the fact that they are wooded wholly with the best Eastern hard wood, while the metal work is nearly all wrought iron, a large proportion of which is Norway.

A catalogue, giving full particulars as to construction, weight of Press, weight and size of bales, etc., will be mailed on application.

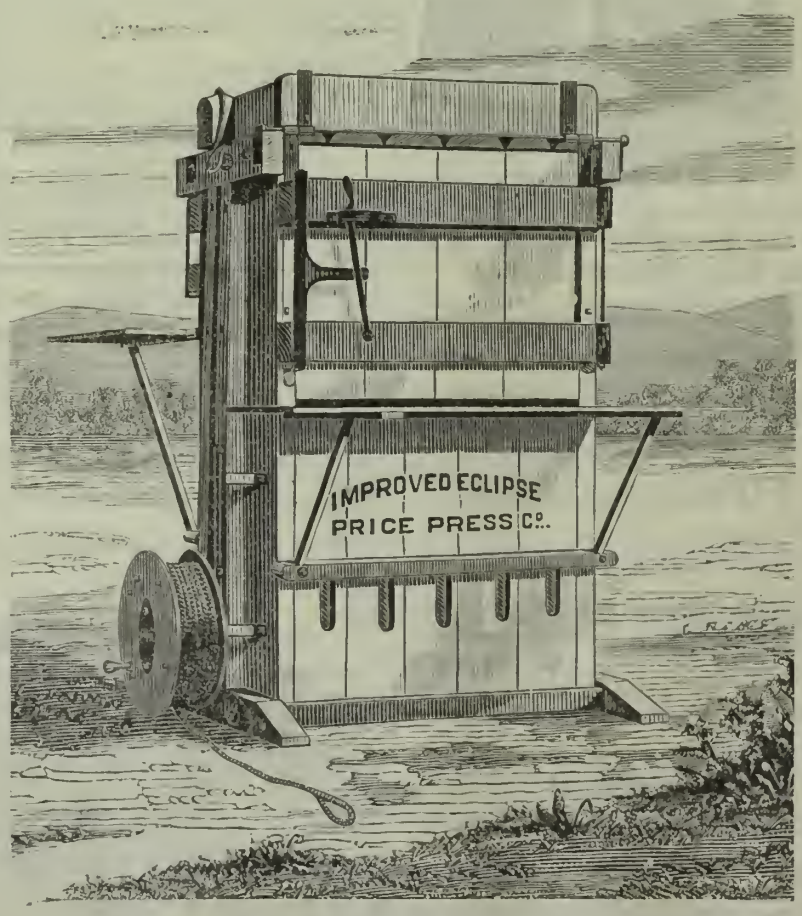
PRICE PRESS COMPANY,

I. J. TRUMAN, SAN FRANCISCO. | JACOB PRICE, SAN LEANDRO.

OFFICE WITH

BAKER & HAMILTON,

17 Front St., - - - San Francisco.



THE IMPROVED ECLIPSE HAY PRESS.

Price, $300.

IMPROVED

ECLIPSE

HORSE POWER

HAY PRESS.

This we claim to be the most

Simple,

Compact,

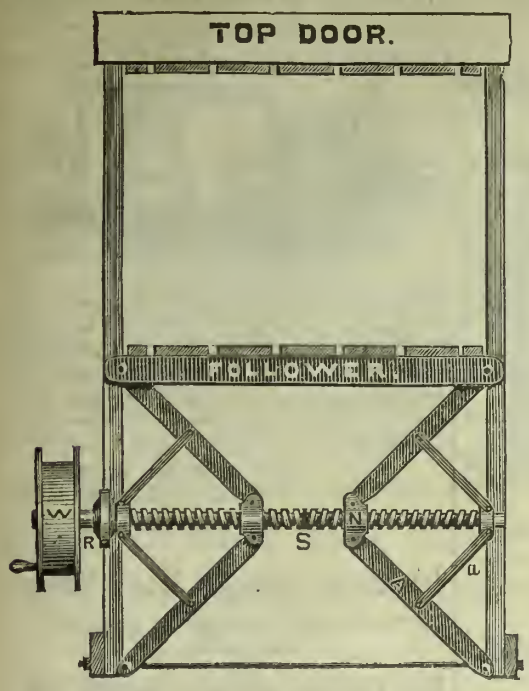
Effective and

Powerful Press

Ever made for Three Hundred Dollars.

It has neither railroads, chains, pulleys, ratchets, cog wheels nor triggers of any kind, the whole of the machinery being shown in the cut on the succeeding page. To operate it you have only to fill it with hay, close the doors, and turn the driving wheel in the right direction, with one large or two

MACHINERY OF IMPROVED ECLIPSE PRESSES.



small horses, and the bale is pressed.

Reverse the motion of the wheel by hand, a movement requiring four seconds, and the machine is ready for another bale. We sold a considerable number of these Presses last season, and without a single exception they gave entire satisfaction, the universal testimony being that they are simply perfect and a dangerous rival of the Price Press.

The follower is moved by the toggle arms, *A*, operated by the screw, *S*. The small arms, *a*, merely serve to keep the follower level and prevent any chafing against the end of the Press.

Send for Catalogue to

PRICE PRESS CO.,

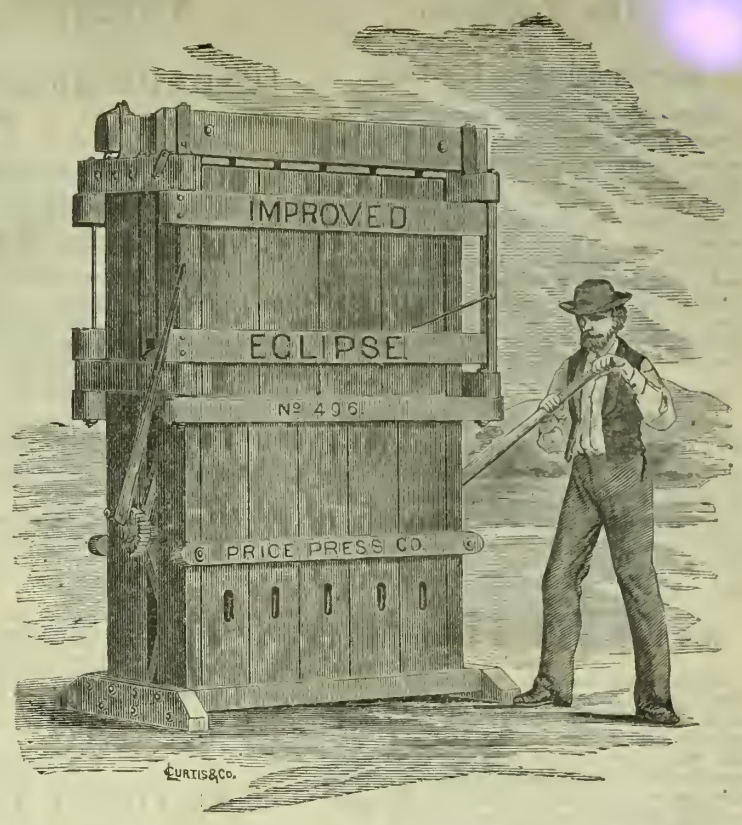
No. 17 Front street, San Francisco.

OUR HAND PRESS.

At the upper right hand corner of this page is an illu stration of a hand press having the same power as the Improved Eclipse Horse Power Press. It is used for baling hay, cotton, wool, hair, moss, rags, etc.

The Improved Eclipse Hand Press can be operated by one man only, working on one lever, or by a man at each end making alternate strokes of the levers, or by both men working the levers together, in which case the power of the machine is doubled.

No matter what is in the Press, the power increases to such an extent, as the toggle joints straighten out by the turning of the screw, that it will be made into a bale or burst the top of the Press off, which, by the way, is not easily done.



IMPROVED ECLIPSE HAND PRESS,

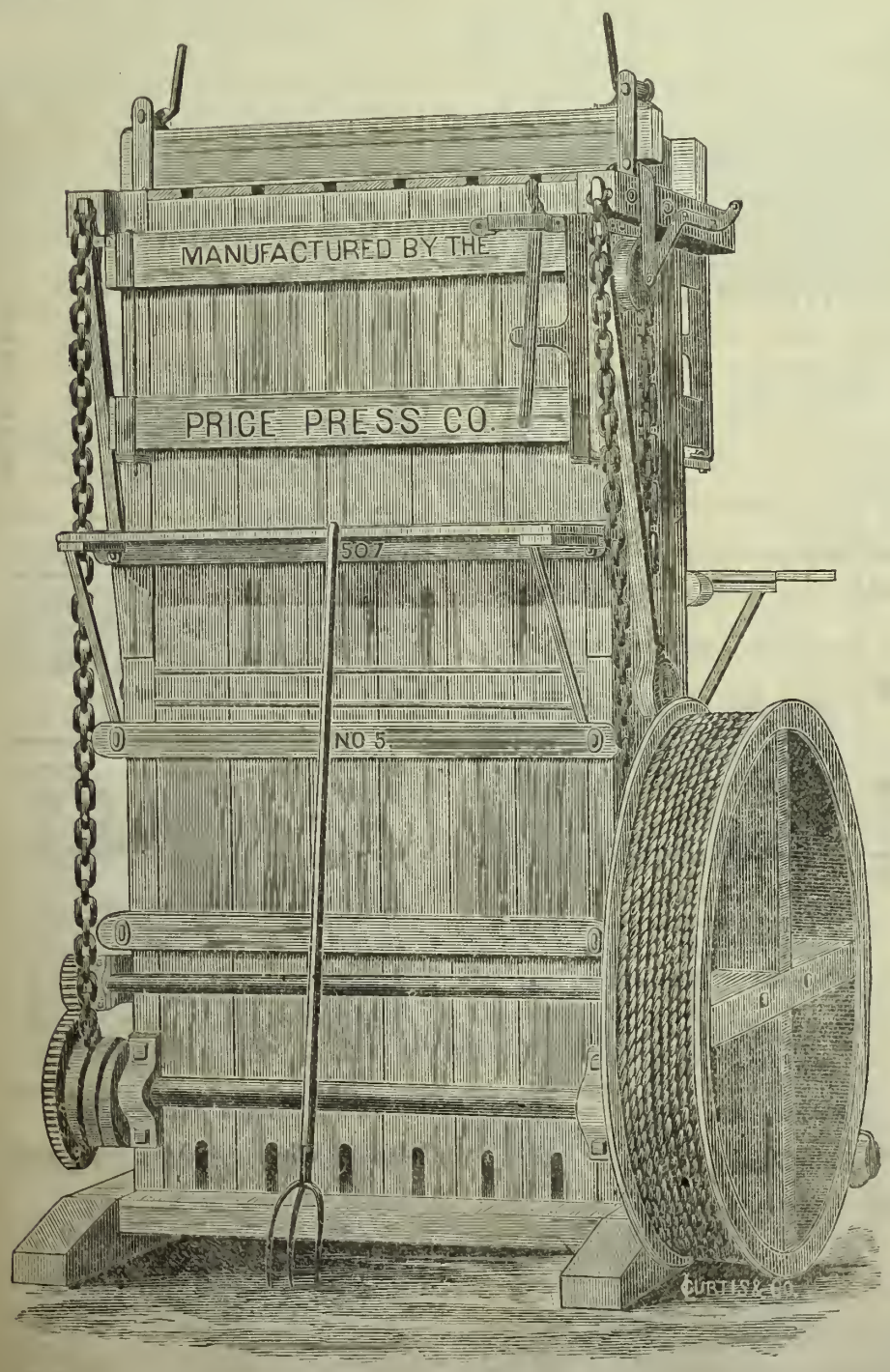
PRICE, $200.

Its Wonderful Simplicity makes it a machine suitable for operation by any man that knows enough to work a pump handle or turn a crank, for that is all that is to be done in pressing. To run the follower up with the levers and lower it with the crank is all that is to be learned.

For full description, send to the

PRICE PRESS CO.,

17 Front Street, San Francisco.



PRICE PRESS FOR HEAVY WORK.

PRICE, $600.

THE PRICE PRESS FOR HEAVY WORK.

Eleven Tons to a Box Car.

We Make to Order a Rapid and Powerful Baling Press for Loading Box Cars.

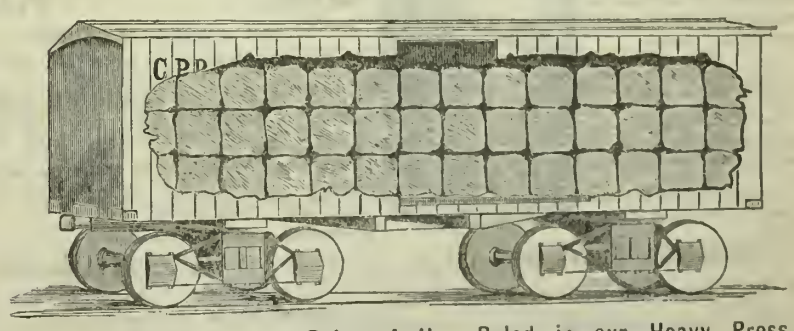
It is warranted to conform to the following

DESCRIPTION:

The press is nine feet six inches high, with a box, for the reception of hay, nine feet deep. It makes a bale 3 feet 10 inches long, and 22 inches thick. The follower goes up to within 16 inches of the top door, making the bale that depth only, when in the Press before the follower is released. This permits the use of ordinary rope, or wire, for the elasticity is taken out of the hay to such an extent that, by fastening the bands loosely and permitting the bale to expand six or eight inches, there is no undue strain on the rope or wire. This will leave the bale, when *out* of the press, about 22 by 24 inches square, and 3 feet 10 inches long This size will permit 28 of them to be laid on the floor of a box car, and as the car will easily receive three layers, or tiers, of bales, as shown in the following cut, it is easy to understand that the full complement of eleven tons will be put in the car with ease. There will be 84 bales in the load. They will range in weight from 250 to 300 pounds, averaging about 280 pounds This makes the load of 84 bales weigh 23,520 pounds, almost 12 tons.

Full Particulars on Application to PRICE PRESS CO,

17 FRONT STREET, SAN FRANCISCO.



Box Car Loaded with 84 Bales of Hay Baled in our Heavy Press.

HORSE POWER HOP PRESSES,

PRICE, $350.

We manufacture to order what we believe to be the best Power Hop Press in the United States. The power is the same as that used in the Petaluma Hay Press. The box is eight feet six inches deep in the clear, a depth sufficient to receive 200 pounds of hops without tramping, and is perfectly tight. The follower moves up, and the bale is discharged near the top of the Press. This saves running up and down stairs so much, as all the work is done on or near the upper floor. The Press is so made that the cloth can be put on the bale and sewed with the greatest convenience and rapidity.

ADDRESS:

Price Press Co.,

17 Front Street, San Francisco.

The Garden.

Growing Onions on Tule Land.

EDITORS PRESS:—In your issue of April 8th I stated that it was a well established fact that onions grown in peaty soil, on reclaimed tule land, could not be surpassed in their keeping qualities. I now send you a small box of onions, grown on land eight feet below high water line of tide water, 50 rods from the bank of the Sacramento river. They were harvested and cured in the month of September, 1875. I think they speak for themselves as to their quality, particularly as being good keepers. We have been growing this variety of onions on Sherman island for some 10 years past.

GRANGER.

Sherman Island, May 1st, 1876.

[The onions received are certainly a "knock down argument" in favor of the adaptability of the tule land for this crop. They are beautiful specimens of well formed and filled bulbs, firm in substance and of excellent flavor. Their keeping qualities are fine in a natural state, but they do not last long when they reach the table.—EDS. PRESS.]

How to Make a Good Scarecrow.

Crows are possessed of much more wisdom than is generally credited to them; and while an immovable bundle of rags may drive them away for a short time, we believe that eventually they discover the humbug, as we have seen the birds complacently picking up young corn almost within the shadow of as elaborate a stuffed scarecrow as ever was erected. We, however, have heard suggested a couple of plans which are calculated to intimidate even the boldest of these birds; and as they are easily carried out, perhaps our farmer readers may make use of them. The first and best is a suspended looking glass. Take two small cheap mirrors, fasten them back to back, attach a cord to one angle, hang them from an elastic pole. When the glass swings in the wind the sun's rays are reflected all over the field, even if it be a large one; and even the oldest and bravest of crows will depart precipitately should one of its lightning flashes fall on him. The second plan, although a terror to crows, is especially well suited to fields subjected to the inroads of small birds and even chickens. It involves an artificial hawk made from a big potato and long goose and turkey feathers. The maker can exercise his imitative skill in sticking the feathers into the potato so that they resemble the spread wings and tail of the hawk. It is astonishing what a ferocious-looking bird of prey can be constructed from the above simple materials. It only remains to hang the object from a tall hent pole, and the wind will do the rest. The bird makes swoops and dashes in the most headlong and threatening manner. Even the most inquisitive of venerable hens has been known to hurry rapidly from its dangerous vicinity, while to small birds it carries unmixed dismay.—*Scientific American.*

COHANSEY GLASS TOP

FRUIT JARS.

FRUIT

IN CONTACT WITH

GLASS ONLY.

Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Cal

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,

19 New Montgomery Street, S. F.

☞Grand Hotel Building.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petalnma, Sonoma Co., Cal

60,000 FOREST TREES

FOR SALE—CONSISTING OF

Australian Gum Trees. (Eucalyptus) Monterey Pines and Cypress, etc.

The undersigned, having earnestly engaged in the above business, will strive to merit and receive a fair share of the trade. Prices for all kinds very low, ranging from $3 per hundred upward. A liberal discount made for large orders. For further information address

GEO. C. BAXTER,

Haywards, Alameda Co., Cal.

November, 1875.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS, Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞Illustrated Catalogue free on application.

Agricultural Articles.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL.,

Will receive Prompt Attention.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

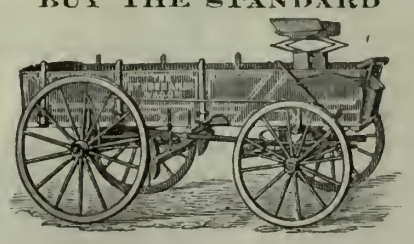
Pumps & Fixtures,

Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,

Livermore, Alameda County, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

OAKLAND

Spring Balance

Gang Plow.

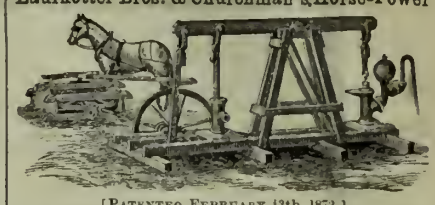
Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

THE

Improved Eagle Hay Press

CHEAP, STRONG, ECONOMICAL, POWERFUL AND RAPID.

THE KIMBALL MANUFACTURING CO.,

Owners of the Patent, and Sole Manufactnrers on the Pacific Coast, make

Cars, Carriages and Agricultural Implements,

Cor. Fourth and Bryant streets, S. F.

Pressing hay in bales in a compact and easily managed shape has become one of the features in the industry of California farming.

The large sales the past season, and the increasing demand of the present, gives proof of the advancement of the Improved Eagle Hay Press over all competitors on this Coast.

Three men, with a team, can bale from ten to fifteen tons per day, each bale weighing from 250 to 350 lbs., according to the quality of the hay. It uses less rope than any other press of its size. Size of bale box, 49 inches long, 26 inches wide and 27 inches high.

These presses are made in San Francisco, by the KIMBALL CAR AND CARRIAGE MANUFACTURING CO. Also manufacturers of agricultural implements, California grading scraper, farming tools, carts, plows, wheel-harrows, portable railway track and cars, railway and street cars, omnibusses, Taylor's patent tubular iron and wood harrows, with driver's seat attached, Harris' patent tubular iron square or Scotch harrow, steam fire engines, Hayes' patent fire escape, Southwick's patent turbine windmill, quartz and farm wagons, trucks, road scrapers, all styles and grades of harness; carriages trimmed to order; manufacturers and agents of Tulloch's automatic ore feeder; machinery made and repaired; fine carriages and all styles of buggies.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,

Stockton, Cal.

Allen's Planet Jr.

SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes. They "sow *like a charm:*" *no packing* of seed in the hopper, *no crushing* it, *no pressing* or *scrape* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, no "*skips*," *no noise, no equal!* THE DOUBLE WHEEL HOE works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable COMBINED MACHINE possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our NEW HORSE HOE, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Mnfrs, No. 119 S. 4th St., Philada. Pa. We must have a Live Agent in Every Town.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING, COR. JAPAN & TOWNSEND STREETS, SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

FRANK BROS. & CO.,

349 Market Street, - - - - - - - San Francisco, Cal.

WALTER A. WOOD'S

IMPROVED IRON MOWER

23,507 were made and sold last year. Their immense sale and unprecedented success IN PRACTICAL FIELD WORK, fully establishes their superiority over all other machines for SIMPLICITY and PERFECTION of CONSTRUCTION.

WALTER A. WOOD'S

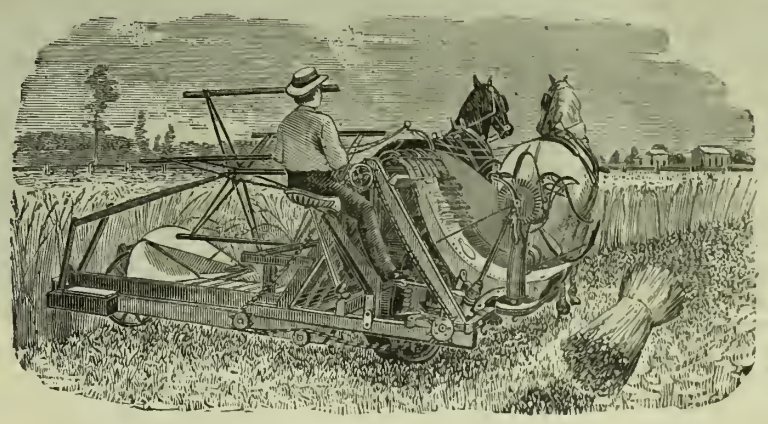
Chain Rake and Sweep Rake Reaper.

WALTER A. WOOD'S

Harvester and Self-Binder.

The Greatest Labor-Saving Machine of the Age.

COATES' LOCK LEVER SULKY RAKE.



WALTER A. WOOD'S HARVESTER AND SELF-BINDER.

THE CELEBRATED

La Belle Farm and Freight Wagon.

SWEEPSTAKES THRESHERS,

SPECIALLY IMPROVED FOR THE PACIFIC COAST.

HAINES' HEADER,

WITH ALL THE LATEST IMPROVEMENTS.

Chaplin & Tiffin's Revolving Rakes,

Warranted the Best in the Market.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for Instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT. — In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars. E. P. HEALD, President Business College, San Francisco, Cal.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

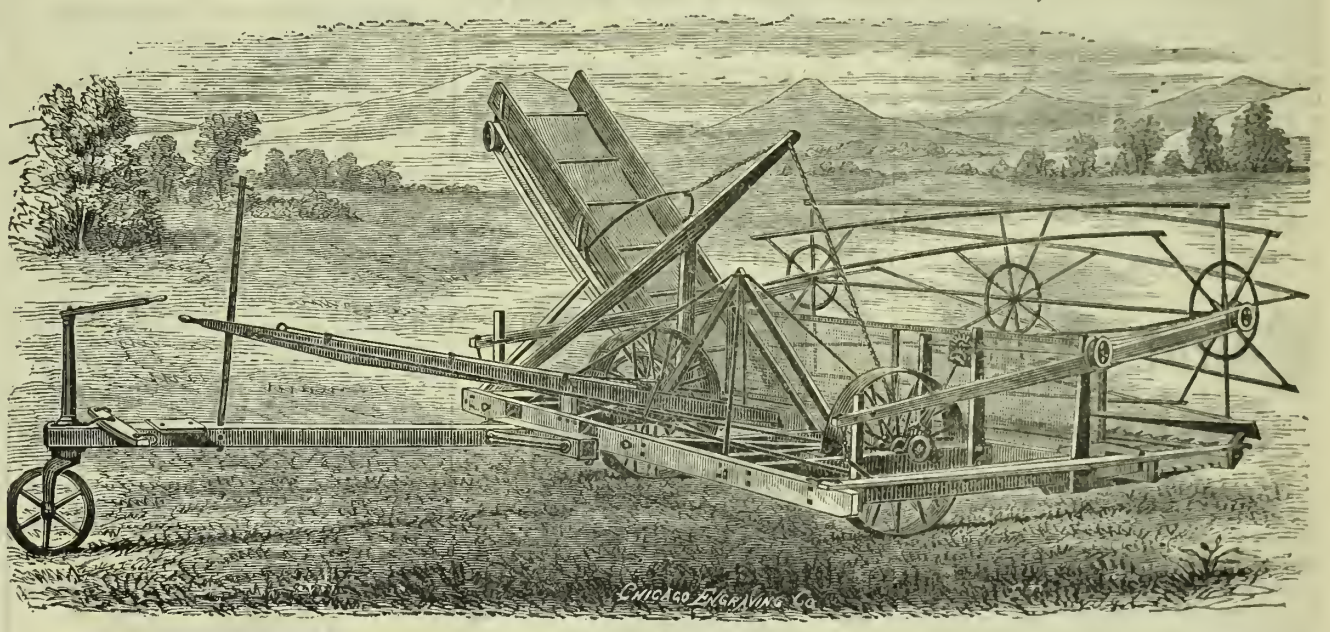
Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

KELLER & CO.,



IMPORTERS AND DEALERS IN

AGRICULTURAL IMPLEMENTS, MACHINES AND FARMERS' TOOLS.

We are Sole Agents for the following Celebrated Machines:

J. I. Case & Co.'s 18-horse Engines.

We guarantee these Engines to furnish more power, with less fuel, than any other make in the market. They are handsome in appearance, mounted on substantial trucks, and furnished with driver's seat, roller break and hand pump.

J. I. Case & Co.'s 40-inch Separators,

With large cleaning capacity, made expressly and just imported for this trade.

Pitts' Down and Mounted Powers,

HEAVIER HAINES' IMPROVED SINGLE-GEAR HEADERS.

These Headers are manufactured by the same party who has superintended the building of all Headers ever made for this trade. Knowing the wants of this market, he has added many improvements for 1876, which will be found on no other Header.

J. I. Case & Co.'s Improved Single Gear,

WITH ADJUSTABLE SPOKES AND REEL.

These Headers are so well and favorably known that we only add for the year 1876 they are better made than ever before. We have these headers in sizes of 10, 12, 14 and 16 feet.

Mowers.

EXCELSIOR MEDIUM MOWER, EXCELSIOR JUNIOR MOWER, ÆTNA MOWER, WOOD'S MOWER, PEERLESS MOWER, MEADOW LARK MOWER. The finest assortment of noted Machines ever kept by one house.

Header Wagons.

The reputation of Fish Bros.' Pacific Wagons is so well established that parties buying these Wagons know without doubt they have the very best in the market. We have a large stock of IRON AXLE HEADER WAGONS. We guarantee them to run two years without the resetting of the Tires.

Lock-Lever Steel Tooth Hay Rake,

Awarded the FIRST PREMIUM at State Fair last fall as the best Steel Tooth Rake. This is a self-dumping Rake, and stands without a rival.

Sulky Revolving Rake

Has become very popular as the best Winrowing and Bunching Rake. Also, a full stock of Revolving Rakes.

Harpoon Hay Forks.

The double harpoon is the only reliable Horse Fork for all kinds of hay.

Faust's Hay Loader,

The only successful Hay Loader in the world.

Buckeye Corn Cultivator.

This is either a Riding or Walking Cultivator. More of them in use than all other makes combined.

The Gorham Seeder and Cultivator,

The Only Reliable Seeder now in Use.

Barbed Wire for Fence,

Also, Single Barbs, separate from the Wire. They can be attached to any Wire Fence anywhere. They are immovably clasped around the Wire, after the Fence is built, with pincers furnished for the purpose.

Halladay's Windmills.

They are the Standard Mill the world over. Have gained a reputation as broad as its use is extensive.

Wagons, Plows, Cultivators, Harrows, Seed Sowers, Etc., Header Knives, Mower Knives, Sections,

AT HALF THE USUAL PRICE PAID OTHER DEALERS.

Our Goods are the best in the market. Our prices are the lowest. Our manner of trading is well known all over the Coast. Our Machines are so well and favorably known that farmers make no experiment when trading with us. Send for Circular and Price List.

Address, KELLER & CO.,

43, 45, 47 J Street, Sacramento, Cal.

$250 A MONTH.—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

McCormick's Mowers and Reapers.

☞FARMERS wanting to purchase Mowers or Reapers this season will serve their own interest by examining the McCormick Machines before purchasing. Every McCormick Machine sold is guaranteed to give satisfaction to the purchaser, if correctly set up, or purchase money returned.

McCormicks' character as the inventor of the Reaping Machine is national. Their experience in the manufacture of Mowing and Reaping Machines, and improving them, extends over the past thirty years. Their facilities for manufacturing are the most complete, and the capital invested in the business the largest of any manufacturers in their line in the world. This of itself is a safe guarantee to those who patronize them that they will be well treated.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.
Examinations Ordered and Reported by TELEGRAPH.
Examinations made of Assignments Recorded in Washington.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of Patents and Assignments.
Re ected Cases taken up and Patents Obtained
Every legitimate branch of the Patent Agency Business promptly and thoroughly conducted.
Send for Circular

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our reader- gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

Thorough Spanish Merinos.

Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS, Santa Clara, Cal.

Gloves Made to Order

At prices most economical to customers, at the **SACRAMENTO GLOVE FACTORY** of **I. W. Lusk**, Tenth St., between J and K Sts., Sacramento. None but the best quality of California tanned skins used. Ladies' and Gents' colored plain and Indian dressed riding and common gloves and mittens on hand, or made to order on short notice. ☞ Send your size or number and you can order by mail. Satisfaction guaranteed. Ladies, farmers, miners, engineers, and all requiring serviceable gloves are invited to call at the factory.

FOR SALE,

A well Improved Farm of 160 acres, with or without the crop, one-quarter of a mile from Linden, 12 miles from Stockton. Apply to

JAMES DRACE, Linden, Cal.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth. Capacity, Etc.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wide	12 gal'ns.	6 in.
1	6 ft 10 in. l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 8 in. l'ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns.	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	55 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	65 gal'ns.	9½ in.

*Four pans in set.

NUTTING & WILLARD,
SACRAMENTO, CAL.

EXTRAS! EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Falling Water.

S. A. POLLARD,
San Luis Obispo.

WANTED.

A situation wanted as Engineer in the country, by a person who has had experience in running Portable Engines, Gang Plows, Etc. Reference given.

Address, ALBERT BAILEY, Oakland, Cal.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 45 Ca.. Market S.F

POND LILIES,

WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,
Pacific Forest Tree Nursery, Petaluma, Cal.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco

INTERNATIONAL HOTEL,

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

OAKLAND, Saturday, May 13th, 1876

WOODWARD & TAGGART,

Real Estate Auctioneers.

B. A. COBB, AUCTIONEER, WILL SELL, AT

PUBLIC AUCTION,

On Saturday, May 13th, 1876, at Salesroom, 460 and 462 Eighth Street, Oakland.

42 Choice Residence Lots,

THE PROPERTY OF CHRISTIAN BAOGE.

This property is situated in a portion of the city that is improving as rapidly as any part of the city: is but a short distance from schools and churches; but four blocks from the Berkeley railroad, which is now being built and will be completed within 30 days. A station is to be built at the foot of Fourteenth street, which will bring this property within 30 minutes of San Francisco. There is not to be found within the city limits more desirable residence sites than this property presents. A horse railroad will soon be built in front of this property, which will bring it within five minutes' ride of Broadway station. Terms, one-fifth cash, one-fifth in one year, one-fifth in two years, one-fifth in three years, one-fifth in four years. Interest on deferred payment at the rate of 10 per cent. per annum. For further particulars, apply to

WOODWARD & TAGGART, 460 and 462 Eighth Street, Oakland.
MAURICE DORE & CO., 326 Pine Street, San Francisco.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT..... GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

FARMERS' UNION.

SUCCESSOR TO A PFISTER & CO.,
Cor. Second and Santa Clara Sts., San Jose.
CAPITAL. - - - - - - - - - $100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER
Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.
Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address M. EYRE, Napa, Cal.
Please enclose stamp.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New } Sweet Corn.

Early Canada, Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

*** My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR.....PRESIDENT.
I. G. GARDNER.....VICE-PRESIDENT.
G. P. KELLOGG.....TREASURER.
A. W. THOMPSON.....ATTORNEY.
FERD. K. RULE.....SECRETARY.

TRUSTEES:

J. D. BLANCHAR	S. F.	I. C. STEELE	San Mateo
G. P. KELLOGG	Salinas	G. W. COLBY	Butte Co
I. G. GARDNER	S. F.	A. WOLF	Stockton
CHAS. LAIRD	Salinas	C. J. CRESSEY	Oakland
URIAH WOOD	San Benito	J. C. MERRYFIELD	Dixon
A. B. NALLY	Santa Rosa	E. W. STEELE	S. L. Obispo
A. W. THOMPSON	S. F.	C. S. ABBOTT	Monterey
A. D. LOGAN	Colusa	Dr. T. FLINT	Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

J. K. CUMMINGS. 1858. H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, MAY 20, 1876. [Number 21.

Traveling Correspondence.

NUMBER ONE.

EDITORS PRESS:—Along the route from San Francisco to Folsom crops generally looked well everywhere within sight from the cars, particularly in Suisun and Vaca valleys, Solano county, and in the vicinity of Woodland, Yolo county.

The branch State prison was the all absorbing question about

Folsom.

A petition to the State Board of Directors was in circulation for signatures, the object of which was to induce them to proceed with the work and complete the same, as contemplated by the statutes of 1873-74. It represents that responsible parties will undertake to finish one story of 168 cells for the $85,000 yet in hand, giving room for 300 prisoners. The prison is situated two miles above the village on a tract of land embracing about 500 acres, on which is found an inexhaustible supply of very superior granite; all of which will pass into the hands of the State if work is carried to completion. The granite is a fine grained bluish-gray, retains its color well and is very durable. A portion of it was used in the construction of the capitol at Sacramento, and also in the college of agriculture at Berkeley. It is believed by many that the business of quarrying and dressing the granite would give profitable employment to thousands of convicts and save a large amount to the State.

Agricultural Progress.

The production of gold in this locality has been steadily decreasing—from a monthly yield of $50,000 five years ago to $25,000 per month at the present time. Much of the old mining ground is now covered with orchards and vineyards, or devoted to vegetables and grain.

What has been said in regard to mining will apply to Mormon Island, Clarksville, Latrobe and other points this far on my line of travel, and probably to the whole of El Dorado county. A little placer mining was found along the route, carried on principally by Chinamen. Prospecting was going on at Clarksville on a quartz claim, with favorable indications. It is said operations will commence soon on another ledge which has been worked for many years. The principal business around Clarksville and Latrobe is grazing. Here you see sheep and cattle during the spring on a thousand hills. In the summer the country is almost depopulated. The inhabitants close their houses and drive their stock to the summit of the Sierras, where they remain until winter, herding their sheep or making their butter. All seemed to be doing well, and many are doubtless making money. At Latrobe Mr. W. S. Cothrin has from 6,000 to 7,000 merino sheep and Mr. J. M. Miller about 8,000 head.

From Latrobe to Shingle Springs, attention is given to hay, vegetables and fruits of all kinds—particularly to the grape. The foothills and small mountain valleys cannot be surpassed in this respect.

In the neighborhood of French creek there are many small vineyards where wine of an excellent quality is made.

Mr. Lambert informed me that he made about 3,000 gallons per annum, Mr. Schenck about 5,000, and others from 8,000 to 10,000 gallons each. Improved land can be had for $15 per acre and unimproved for much less. At Mr. Lambert's, where I was hospitably entertained, I tasted some very good grape molasses. It would be a fortune to the man who would discover a process for making good granulated sugar from the syrup. At Mr. Brandin's, a short distance below, is a small fish pond. He started with about six or eight goldfish, and now has from 150 to 200.

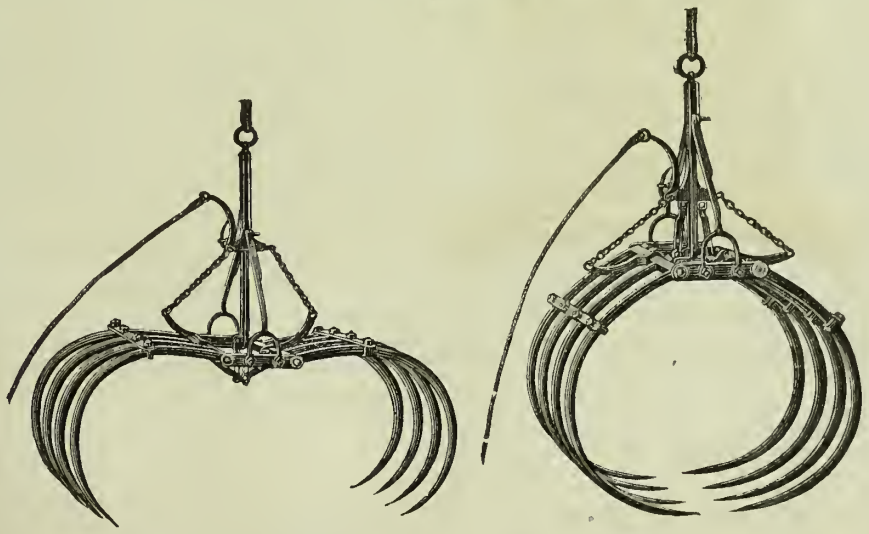
Some one might find pisciculture a profitable business here or on some of our mountain streams. It is worth a trial.

Shingle Springs is the terminus of the Sac. Valley R. R., and about ten miles from Placerville. Mr. Hall entertains the weary traveler at his hotel, and Mr. Myers has a boarding house and skating rink for the entertainment and amusement of visitors. The products of the surrounding country are so similar to the places mentioned as to need no further description. K.

Shingle Springs, May 13th.

Taber's Improved Hay Fork.

We give illustrations on this page of an improved horse hay fork recently patented by Orrin Taber, of San Jose, through Dewey & Co's agency. This useful farm implement has in the short time since it was put into work secured more than the usual amount of approval from those who have given it full trial. We have seen most favorable testimonials of its excellent and efficient work. Mr. Taber's improvement over other hay forks of similar model lies in ingenious mechanical devices for operating the two sets of fingers, by which the requisite amount of strength together with positive action of the grasping and releasing fingers are secured. The heads of the two sets of fingers are journaled in the opposite ends of two end plates, and these end plates are connected together between the heads by means of rods or bars which extend across parallel with the heads, thus providing a spacing frame for separating the heads and



TABER'S IMPROVED HAY FORK.

permitting the points of the fingers to describe a larger curve when they open and close than if the heads were closer together, consequently causing them to enter the body of hay with greater ease. This improvement is a very valuable feature of the fork and its result in working is readily perceived.

The great value in the patent, however, lies in the arrangement for holding the load and for releasing it when the place of deposit is reached. This work is wholly automatic and consequently very important as a labor saving feature. The arrangement is such that when the load is grasped the weight of the fork and its load are suspended from a lifting bar, and as this lifting bar is attached to crank arms which act upon the fingers or teeth, the pull upon it closes the fork. When the fork has been lifted to the point where the load is to be deposited, a light pull upon a rope which is connected with a trip lever withdraws a bolt, releasing the strain on the cranks and allowing the weight of the load to force the fingers apart and deposit itself. By this arrangement, of which we have noted only the general features, the inventor secures a simple and substantial arrangement by which the forks are operated easily and automatically.

We are assured by those who have used this implement that it does its work with exceeding ease and success, and so much of its labor is performed automatically that one man can operate it easily. From the testimony of our correspondent at San Jose, and other testimonials from practical men, we can commend the implement as worthy the examination and attention of all who have quantities of grain, hay or straw to move or stack.

TRIAL OF AGRICULTURAL MACHINERY.—There was a very interesting trial of harvesting machinery held at Stockton during the week. We are promised a report for publication next week.

How to Have Warm Water.

The luxury of warm water constantly on hand in large quantities is something which our rural readers do not often enjoy. The method of securing it which is generally in use in city houses is expensive, and any contrivance which will cheapen the luxury and place it within the reach of thousands of homes, we conceive to be a public benefit. For this reason we quote for our readers a paragraph which we find in the Los Angeles *Express* of last week, as follows: "We examined an invention this morning at Swigart & Huber's which is destined to create a revolution in heating water in houses for the use of the kitchen and the bath. The inventor, Mr. James T. Stewart, who is a workman in Swigart & Huber's, explained to us the principles of his invention, and we are disposed to think that he has really evolved a most magnificent problem in the economy of housekeeping. His invention consists simply of a section of copper pipe which fits on the flue of the stove. It is filled with tubes, through which the smoke and heat arising from the fire pass. The water is conveyed by means of a pipe from a tank, which may be located on the roof or in the attic. This connects with the tubular section, and the water in passing through it becomes heated, then passes into another pipe and ascends to the tank. As the hot water is drawn off, fresh water enters the tank from another pipe, which is supplied with a self-adjusting valve. Thus the water in the tank is kept constantly at the same level, and as it is continually circulating to and from the tubular section, it is maintained at a temperature of heat consistent with the degree of fire in the stove The tubular sections are made to suit every sized stove, and as the tubes, although of copper, are tinned on the side next to the water, they are very strong and there is no danger from verdigris. By this simple apparatus any house can be supplied with hot water at all times. A small family can be accommodated with this desirable element just as well as a large one. It does away with the cumbrous coils of pipes which are required by the old method, avoids the necessity of an expensive copper boiler, and places the poor man's house on an equality with that of the rich as regards the luxury of heated water. The entire outfit will hardly cost as much as an ordinary heating boiler such as is now used in connection with the ranges. The water tank may be of wood, and need cost but a mere trifle, and the pipes leading to and from it may be placed in a house at a very moderate figure."

GILLIS' HORSE POWER.—The novel horse power for operating pumps, etc., recently illustrated in the RURAL PRESS, is the invention of Mr. D. T. Gillis, recently of Stockton, the inventor of several other ingenious and useful devices. It is manufactured and sold by the Sweepstake plow company, of San Leandro, of which works Frank A. Hill is superintendent.

Oregon Dairy Figures.

We find in the *Willamette Farmer* the following: "I will give the result of a short test made by B. E. Stewart, of North Yamhill, with one cow, both for butter and cheese. The quantity of milk given was not great, owing to the time of year, the feed being mostly dry. February 25th, 1876, the milk of 36 hours, (65 pounds) made nine pounds of cheese. February 29th, milk of three days, or 72 hours, (129 pounds), made five and three-fourth pounds of butter. March 4th, milk of two days, or 48 hours, (76 pounds), made ten and one-half pounds of cheese. The trial was made with his thorough-bed Holstein cow, 'Midwould 13th.' He is now making cheese regularly every other day from the same cow, and another, a high grade Short Horn, the two giving about 95 pounds per day, and making cheese in about the same proportion as the figures given above."

We introduce this quotation for the purpose of remarking that the results are the most satisfactory and remarkable dairy figures we ever saw. There is nothing on record in the dairy experience of New York which can compare with them. In the item of cheese, making one pound of cheese from seven and one quarter pounds of milk is unprecedented so far as we know. The best figure we have ever heard was a pound of cheese from a fraction more than eight pounds of milk, and the accuracy of this statement was generally doubted by dairymen. If we can produce milk on this coast so rich in casein as that reported from Oregon, it ought to be more generally known than it is. Will our cheese making readers give us the results of their practice with milk, and inform us how Mr. Stewart's statement compares with their experience?

A Sheep Shearing Festival.

We receive from Mr. M. L. Ayers, President of the Southeastern Wisconsin Sheep Breeders' and Wool Growers' Association, a report of the eleventh annual shearing festival, which was held at Caldwell prairie, May 3d. There were 143 sheep in competition for the prizes. The sheep were divided into three classses, as follows: Delaine merino, American merino and the wool growers' class. The chief characteristic of the delaine merino is length and thickness of staple; of the American merino, weight of fleece without regard to length of staple; of the wool growers' class, is to encourage the wool growers who do not compete with the breeders. Of the delaine merinos the heaviest ram fleece was from a two-year-old, and weighed 22 pounds five ounces; the heaviest ewe fleece was also from a two-year-old, and weighed 13 pounds nine ounces. Of the American merino class, the heaviest ram fleece was from a three-year-old, and weighed 20 pounds five ounces; the heaviest ewe fleece was from a two-year-old, and weighed 18 pounds. There was but one entry in the wool growers' class, a ram shearing 14 pounds 13 ounces. Owing to the late cold weather and the fact that the last year the shearing was held 10 days later, the exhibitors were all disappointed in the weight of the fleeces. The shearing of many rams last year gave from 20 to 28½ pounds, and many of the ewes sheared from 15 to 21½.

IMPORTED SHEEP AND HORSES.—Mr. Rollin P. Saxe has lately arrived in this city with nine thoroughbred Shropshire rams, just arrived from England. These rams are 12 months old, average 166 pounds, and are from the flock of the Earl of Strathmore, England. The sire of these sheep is said to weigh 340 pounds. The stock, as well as some 20 head of the thoroughbred Short Horns, are at the stables of Messrs. Sweeny, corner Tenth and Howard streets, and are beauties. Mr. Saxe also imported for his own use two thoroughbred Kentucky saddle mares, broke to all gaits under the saddle, as well as being fine drivers in harness.

SANTA CRUZ.—Mr. C. N. West, of Santa Cruz, will represent our paper in that county as agent and correspondent. Our friends will confer a favor by aiding him in his labors.

CORRESPONDENCE.

Botanical Excursions.

[By J. G. LEMMON.]

No. 2. The Northern Valleys and Lassen's Peak. (Continued.) Part III. Indian Valley and its People.

Exploring the broad breast of Prince Sierra thue far, reveling among his elaborate decorations, we have found much to admire, much to excite curiosity, and much to show his high standing in society, We have diecovered, if badges are a sure indication, that he inherits the crescent of the Oriental caliphs, has joined the Odd Fellows, become a Royal Arch Mason, and been honored with the microcosm—the insignia of a master of natural history and philsophoy. We shall find further that he has been knighted with the beautiful Maltese cross, wears the glittering shield of a union defender, has mounted the etars of a commander-in-chief, and sways the ecepter of a king.

Indian Valley.

Entering Indian valley from Butterfly valley by way of the Quincy toll road, we emerge first upon the south arm of the Maltese cross, and a most entrancing scene lies before us. Nestled down, in and out among the warm bases of the mountains, lies the jewel, its center embossed by several sugar-loaf islands, its arms extended and passing out of sight among the crowding, brown, oak-bordered mountains. Fences and farmhouses everywhere checkmark and punctuate the plain, but, ae in Sierra valley, ite villages are hid away in the far corners. Several days of delightful travel will reveal wonderfully beautiful nooks and dells sequestered along the border, while its arms are deltas of alluvial riches to the practical eye, and alcoves of picturesque scenery to the naturalist.

Yes, Indian valley has fields, gardens and meadowe—none richer in the State; it has roads, bridges, fences and barns; it hae schoolhonses, churchee and society halls; it has quartz and flouring mills, lumber and furniture factories; it has mining camps and thriving villages; it has shops and stores—aye, and it has gambling dens and whiskey holes, too; but I see not these now, I recall not these elements of prosperity, I only see its comfortable homes and think of the warm-hearted people residing in them.

A Social People.

I think of the long years of frequent visits to that sweet vale, and the kind attentions ever tendered me by its citizens. Every honse was my home, every person my friend. Never was a people better characterized for hospitality.

Then there are active minds there, those that hnnger and thirst for knowledge. There are hearts that throb reeponsive to throbbing hearts, souls that are knit unto souls. I cannot discriminate where all are so kind, but some *insist* upon their friendship in a way that is irresietable. They eeize you by the hand and drag you into the house, while coofederatee steal your horses, hide the harness and lock your wagon in the barn; theu all gather ronud you with speaking faces. They look you in the eye and question you closely. Eyes dance and voices ring with joy if you are merry, they fill with teare and tremble with sorrow if you have woes to relate.

From this description the reader will naturally infer that the people of Indian valley are fond of social visits, dances and open-air feetivals. You can scarcely enter the valley any day in summer without seeing a company of citizens, old and young, gathered in a grove enjoying a picnic. A Grange recently organized there also furnishes entertainment of a high character. In the winter not a day of any note in the calender is allowed to pass uncelebrated by a dance or festival—beside, there is a regular social club that gives entertainments at frequent stated intervals.

The Picnic.

It was into thie community that Larsen and I entered one golden day last summer. It happened to be the 24th of June, St. John's day. I assured my comrade that the day would be celebrated, of course, and 12 miles away, in Genesee valley, we heard of a Masonic picnic at Tayloreville and drove straight for it. There were half the residents of the valley aesembled nnder some noble pines—tables, eeats, speaker'e stand, orchestra, canopy, and a merry-go-ronnd for the childreu propelled hy a horse—nothing lacking for a good old-fashioned picnic.

I had heen among these people years before, teaching musical geography, riding the circuit of their districts weekly for a winter, and had often visited them in summer botanizing, but their early enthusiaatic frieudship was scarce abated. What a haud-shaking and greeting! Solicitstions poured in on all sides to go home with this family and that. Dr. Hunt and his wife, being large persons, and friendly in proportion, proved well nigh successful, hut Mr. Ames, about a match for the doctor, and his wife, being the botanist of the valley, they overcame all, and promising the doctor and his family an early *call*, as thoy termed it, of a day and two nights, we drove straight for the pleasant home of Mr. Ames, away up in the north arm among the low, thick-leaved oaks.

The Bolanical Feast.

A royal feast followed! All Mrs. Ames' collection of the season was displayed, also packages received from foreign parts in exchange for Sierra plants. To this display was added her extensive botanical correspondence—letters of inquiry; of congratulation from Drs. Gray, Canby and Thurber; from Profs. Watson, Woolson and Congdon, and from many other scientists of less note—all drawn to her by the exceeding merit of her labors, the readiness of her assistance and the beauty of her letters. The proceedings of the American academy of sciences at the East make such frequent mention of this California botanist and collector, that perhaps the RURAL readers would like a pen-picture.

Mrs. M. E. P. Ames, the Bolanist.

Mary E. Pulsifer is the eldest of two sisters, only children of John W. and Silena Pulsifer. She was born in the city of Lowell, Massachusetts, abont 35 years ago. (I am uot positive as to datee and am writing this sketch without the slightest intention or expectation of doing so until this moment.)

Early in the great California exodus, I think in '49, Mr. Pulsifer came to this country, hastened into the mountains and soon penetrated this secluded valley in search of gold. He prospected carefully the quartz ledges in the encloeing mountaine and discovered a rich one, where afterward sprung up the village of Cresceut. He developed the mine, sold out, acquired several thonsands, and returned East for hie family, then, I believe, in Iowa.

Taking them again to Lowell and putting the daughters in school, he resided there some years, then with his family emigrated to California, to make it their home.

Locating in the semi-tropical Santa Clara valley, the youngest daughter, Martha, found food for her intellectual and literary tastee, while Mary, intensely fond of flowers from infancy, was in Paradise. The careful parents placed their promising daughters in the Santa Clara college to finish thoir education, and opened their house for the reception of the best society of the valley. Here Mr. Pulsifer gave loose reiu to those social, intellectual and philosophical desires that through life had struggled for exercise, and he became noted for intelligence, research, social magnetism and generous assietance.

The old mining fever working still in his veins, impelled him to remove for a few years to Shaw'e flat, in the southern mince. Here the diligent young botanist added to her specimens the peculiar flora of Table mountain. Here was a stepping etone to the high Sierra, a foretaste of its alpine flora. The next remove was to the early home of the bold prospector, over the Sierra, the flower-gemmed Indian valley.

Purchasing a ranch in the north arm, and surrounding his family with home comforts, Mr. Puleifer continued those meutal recreations and philosophical researches which drew around him a large circle of friends. Among them appeared Mr. C. C. Ames, a clever, geuerous, well-to-do gentlemau, who had often accompanied the botanist on her explorations of Table mountain, and now continued his attentione. He fully appreciated her worth and talents, and she his great soul aud devotion, eo they were married in September 1871. Carefully providing his wife with presses, papers, receptaclee and stamps, and always ready to carry her about the country with hie fast trotters, wade into the bogs or climb a rock for her flowers, he proves the best husband a lady engrossed in the expensive, non-paying pureuit of botany could have. Her parents also appreciated and assisted her, no child of the forest wild being sharper-eyed in the detection of flowers than her mother.

The father, a tall, noble gentleman of the old school, looked with proud eatisfaction upon his fond daughters, and deeply enjoyed the success of each—Martha iu the realm of letters as a newspaper correspondent, Mary in the floral kingdom winning honors and fame imperishable.

But the successful farmer must give close attention to dull details and delight in it. Mr. Pulsifer was a socialist, a philosopher. Having quit the digging of gold he could make it no other way. The farm passed into the hands of others, and father, mother and Martha returned to San Jose to renew the friendships of early times. Here the family met with the loss of ite noble, divinely endowed head. Here died, September, 1874, Mr. Pulsifer, aged about 63, in the midst of warm friends, and supported by his wife and Martha, but far away from the loved and loving Mary.

Mary almost idolized her father, and the arrow of death nearly transfixed two where one was menaced. Mr. Ames, who had built up a home adjoining the old ranch, immediately sent for the stricken mother and Martha and has provided them a home with him for life, if they choose.

Mrs. Ames, rallying by the assistance of her mother, now doubly endeared, found in the continuance of her botany surcease of sorrow, remembering the while how, in life, her proud father shared and hightened her triumphs. She made long excursions up, down and over the Sierra, barely escaping the total loss of sight in her zeal—happily now recovered. She reduced her large collection in order to facilitate their study.

Then, when questioning lettere crowded every mail, she could readily pen a neat reply right to the point; ao fully, so correctly, so cheertully written, that every questioner was at once tempted to submit twice as many more. Thus Mrs. Ames hae labored, thus she has been enabled to he of so much use to the editors of the "California Flora."

In long, fatherly letters from Dr. Gray, he gives her warm encomiums for zeal, knowledge and efficiency; and in his "Botanical Contributions," read before the American Academy of Arts and Scienoes, he speaks of Mrs. M. E. P. Ames as one of the collectors on whom he chiefly relies for the flora of Northesstern California.

Among her collections are scores of plants rarely found before, and a dozen new ones, two of which (and perhaps more this winter) have been named in her honor, *Astragalus Pulsifera* and *Mimulus Pulsifera*.

When the first of these honors was announced to her, Mrs. Ames replied: "My epirit is dumb with joy! Oh, if my dear father had lived to share with me the joy of this hour, my happinese would be complete! How can I express the depths immense of endless gratitude I owe the good Dr. Gray!"

This extract, characteristic of Mrs. Ames' letters, is enough in conclusion to convey to the reader an idea of the mind, the heart, the spirit of this gifted child of nature, who reflecte so much credit upon the region of the high Sierra where ehe lives and upon the State at large.

Saving Corn From Frost.

EDITORS PRESS:—In the PRESS of April 15th is an article headed "Guard Against Frost," which, when put in practice, will prove a success. I will give you my experience. Years ago in the Badger State, I had a field of corn about four inchee high ou rather low land. Being convinced one clear etill evening that we were going to have a hard froet, I thought I would try and eave my corn with smoke. I had often seen fruit trees and small gardens escape the frost in our little village of P., when the farmers' corn fields would perish. Being astisfied the smoke from the chimneya was the cause, I took aome matches, went down in the field, set an old straw pile and six or eight old brush piles on fire. Tney were lying near the corn patch. In half an hour a clood of emoke hung over the corn. Oue of my neighbors was asked what I wae doing. He said that I was up to some of my tricks. My corn was saved. My neighbor'a corn was killed. My neighbors were surprised that my corn on low land should escape the frost. I said nothing, for I knew they would laugh at the trick. I eaw one field of corn planted by the Hon. Major Rountree all killed but about four acres, which had been a brick yard. He had manured that part well before planting, which I claim saved the corn from the frost. I am satisfied that well cultivated or well manured land will help to protect vegetation from frost. Piles of dry manure would answer well for fuel to smoke away the frost. It burne elow and smokes well. BADGER.

Spring Valley, Colusa county, Cal.

[We should not recommend a farmer to burn a manure pile to guard against frost. It is too valuable. Better look ahead and store up the many loads of rubbish which accumnlate on every ranch, and place them so that they may be fired on a moment's notice. In this way useless material may prove valuable.—EDS. PRESS.]

Roseville.

EDITORS PRESS:—Roseville is a nice little ville at the junction of the main Central Pacific and the Marysville railroad in Placer county, 18 miles from Sacramento city. The place enjoys a happy combination of valley and hill surroundings. There are evergreen oaks and abundance of wild flowers, many of which are very beautiful and greatly admired by the newly arrived tonriste from the East, ae the lads offer them in very tastefully arranged bouquets. The town seems well supplied with mechanical ehops, merchandiee, hotels, stables, etc. Yet it was not easy to obtain a bed; hut Mr. Scott, the man who solved the great problem, how to stow away 17 lodgers in 16 rooms and each have a separate bed, eoon found for me a sleeping place.

Mre. J. S. Williams, at the opposite hotel, superintends in person the dining department, and nothing but the best of the season fills her bills and at the tap of the hell every seat is claimed by cheerful patrons.

The Depot hotel, kept by Mr. J. R. Watson, still holds its early reputation for a first-clase railroad house.

Among the tradere Mr. Pratt still remains, and offers to the community almost anything within the range of luxury or necessity, for household or farmers' use. Mr. Pratt is also interested in a new manufacturing firm, Brewster, Pratt & Co., for the manufacture of harrows.

They hold the letters patent by purchase for the exclusive right to manufacture the iron sectional gang harrow on this coast. It will be recollected that this is the harrow that, after a thorough trial, took the first premium at the State Fair in Sacramento, 1875. They have built a shop for manufacturing this implement here for the trade. They are now hurrying to get their machinery in operation and a supply on hand for the fall trade. They show wisdom in selecting an article already so well and favorably known, and will, no doubt, add considerasbly to the business character of Roseville hy their entorprise. C.

Underdrainage.

EDITORS PRESS:—An article appeared in your issue of April 22d, over the signature of "Rancher," and addressed particularly to me, asking many qnestions upon the snbject of underdrainage. Now, while I am ever ready and willing at all times to impart to my neighbors and friends euch information as I am capable of giving, I feel a diffidence in coming before the public in a journal so widely circulated as the PACIFIC RURAL PRESS, to give my views and experience. As I cannot have the pleasure of taking "Rancher" over my ranch and showing him the practical workings of my drains, I will attempt in my own way to answer hie questions:

1st. What is the nature of the soil and subsoil in which the experiments have been made?

The soil ie black adobe, from one and a half to two feet feet deep. Subsoil a mixture of eand and clay.

2d. How many acres were experimented on?

I have not practiced auy regular system, as used by the Eastern farmers, but have followed along the natural couree where nature gnidee me. I believe it is always best to assist nature when we can. I first go through my land and find the lowest ground, then make a calculation of the size of a ditch reqnired to carry off the water at the highest time; then the best way to cut it through the laud; then, if the amount of water is not too great, I use a tile, if too much, I leave it an open ditch. Wherever a slough, swale or pond intersects this main, I commence with my tile and follow it to its source. I have drained the wettest portione of all my ranch (230 acree,) in this way.

3d. What size of tile was used in the lateral drains, and what was the distance between said drains?

I use tile in eize according to the length of my ditch. In drains 20 rods long I use two inch tile; if 30 rods long, I use 10 rode of three inch at the lower end of the ditch; if 50 rods long, 15 rods of four inch, 15 rods of three inch, and 20 rods of two inch; if 100 rods, I use six inch at the outlet, and increaee at the same ratio in longer drains.

4th. What is the cost of the tiles, and that of laying them?

Two inch round tile costs 25 cents per rod at factory; three inch, sole tile, 30 cents; four inch, horseshoe, 30 cents; five inch, solo, 45 cents; six inch, horseshoe, 50 cents; eight inch, horseshoe, 90 cents. No regular ditching tools have ever been brought to thie part of the country, hence, with our common toole it coste more to dig ditches, ae so much more dirt hae to be removed than is necessary. I pay 25 cents per rod for cutting ditches three feet deep; I lay the tile and assist in replacing the dirt.

5th. What is the cost of tile drainage per acre?

This will depend entirely upon the condition of the land, and the length of the drains. On one part of my ranch I can drain 80 acres with a cost of two or three dollars per acre, while other lands near by would cost $40 to $50.

6th. What has been the average yield of grain on the drained and on the undrained lands since experiments were commenced?

The seaeons here determine the amount of grain raised. Of dry seasons any land will produce a fine crop, but of wet seasons wet adobe land will produce comparatively nothing. I raise a good crop now on my drained land, where heretofore, of wet seasons, I raised hardly enongh to pay expenses. I can now sow my land early without fear of its drowning out, which insures me a good crop. I believe from experience that land properly drained, taken for several years, will produce double that of undrained. By drained land I mean all land through which open ditchee are used as well as tile drains. In my land I have over three and a half miles of open ditches, hence I cannot draw a correct comparison hetween drained and nndrained land. Before I had any ditches through or around my land, and while it was new, I did not make as good an average as I do now.

8th. What object, if any, aside from economy, was there in making the main drain an open ditch?

Most of my ditchee were dug before tile was made in this country. As I could not procnre the tile at the time, I dug them very large. It would be a difficult matter to get tile large enough to carry the water during our heavy storms. I intend after a while to make them all underdrains, when a system of co-operation can he effected hetween farmers, for it is neeless to attempt to drain land without proper inlets and outlets.

The fact of water running ont of several of the drains during the driest part of the summer would not seem so "inoredible" to "Rancher," if he was aware that water can be obtained during the driest eeason in four or five feet of the surface. His idea of too much water being taken out of the ground during the spring is a very good and excellent one. I experimented on it last season, which was a very dry one. I dug down to my tiles in the lateral draine in several places, in the month of June, and closed them up. I had the land planted in corn. The result was that the water raised to and run on the surface of the ground. From the result of this experiment I will construct flood gates all along my mains and also my laterals, so I can control the waters at will. JOHN ADAMS.

Santa Rosa, May 10th, 1876.

[Mr. Adams' answers are very satisfactory, and we commend his experience to the attention of all our readers.—EDS. PRESS.]

The Soil as an Absorbent.

EDITORS PRESS:—In a letter to the RURAL PRESS of April 22d, 1876, headed "Underdrainage," appears an opinion which I have found to be very common smongst farmers of this country, namely: That water will carry off no insignificant portion of the fertilizing matter which lies in the subsoil. On this point I would like to make a few comments. I like to receive information, like "Rancher;" I am always happy to give it, as well.

Now, if water had a stronger tendency to fertilizing matter than the soil, it is evident our land would lose every bit of it, and all the more rapidly in wet seasons. The fact is just the reverse. True, water will contain some mineral substances, and we never find it without them. Even rain water which falls during the first half a day of a rainy spell will contain it, as the chemist can show with very little trouble. But to illustrate my point we need not take to chemistry (still, it would be the truest wsy). I can show it very plainly by taking a funnel and packing it three-quarters full of earth, putting a little paper or rag in the bottom, so as to keep in the soil. Then take some urine which runs off the stable manure (and is one of our best fertilizers, as no one will doubt,) snd pour it on the soil in the funnel. What runs out down below will be as clear as pure water, which shows that it has lost certain substances, and it will keep on so till the soil will be perfectly satursted, after that it will run out dark brown as ever. N.

Santa Clara, May 6th.

THE DAIRY.

How Eastern Prize Butter is Made.

At the recent convention of the Vermont dairymen, the prize for an essay on butter making was awarded to Mrs. J. T. Ellsworth. Mrs. Ellsworth describes her practice as follows:

The Cow and Her Care.

There are breeds which are psrticularly adapted for butter making, and in all breeds there are doubtless good cows for this purpose, but in most breeds there are cows which are exceedingly poor and a positive injury, and should be promptly disposed of before attempting to make good butter. This can be ascertained by setting each cow's milk by itself and making butter of it. She must be in good flesh to expect a fine flavored and high colored product. She must also have good, rich food to eat, such as early cut hay, rowen, Indian meal, shorts, a few roots and a teaspoonful of salt each morning. She must be regularly fed, watered and milked, kept warm and clean in cold wea her, but in a stable properly ventilated. In summer she must have plenty of good sweet grass, so that she will not have to resort to foul grasses or weeds to sustain life, and also to make milk, with plenty of pure water. And it is of the utmost importance that the milking be done in a neat manner, as a small amount of filth will cause a great amount of mischief.

Dairy Room and Utensils.

The dairy room should be situsted above ground, where the temperature can be controlled, avoiding, if possible, a southerly exposure, with proper ventilation. The air should be admitted to the room near the floor, so that no wiud can be blown upon the milk from any source. There should be blinds on the windows to control the light, as a strong light will affect the color of the cream. The temperature should be from 62 to 65 degrees, to raise cream of the best quality and color. It must be kept perfectly free from all foul taints or odors of every kind, as milk and cream are very easily tainted, and these odors or taints will all be concentrated in the butter. One of the first conditions by which to secure good butter is that every utensil used, from the milk pail to the butter firkin, or box, must be kept clean and sweet. Pails made of tin are preferable, but if wooden pails and packages or boxes are used and re-used, they can be kept sweet by a thorough washing and cleansing with strong lime water, scalding and drying in the sun. The pans should be washed in two waters each time, being made as clean as possible, then scalded with boiling water. The churn, butter tray, ladle and butter worker must be washed and scalded in the same manner.

The Cream and the Churn.

Under ordinary circumstances 36 hours is long enough for the milk to stand before skimming; in cold weather it may he well to let it remaiu 12 hours longer. It is not advisable to let cream remain on milk too long, exposed to the air, simply to increase the quantity at the expense of the quality of the butter. There should be considerable milk skimmed with thick cream for churning. If you churn very thick, stiff cream, the butter will have a dull, oily appearance, while, on the other hand, if you have considerable milk with it, it will have a clean, bright look. When cream is kept from one skimming to another, add a little salt each time, and it should be well stirred as often as new is added. Deep tin pails are preferable for cream, as they are convenient for tempering it for churning. If the cream is too cold, it is easily brought to the right temperature by setting the pail in hot water, stirring continually, until the thermometer indicates 60 degrees, or if it is too warm, cool it to 56 or 58 degrees, according to the weather.

The wood of the churn should be tempered as well as the cresm. If it has been kept in a cold room in winter, hot water should be allowed to remain in it till it has warmed through to a temperature of 60 degrees. This oftentimes will save one honr's time in churning. In summer cool the churn to the same temperature. Churning, washing and salting has more to do with making good butter than many suppose. We often hear people praising such and such a churn as their pet churn, because they can wash and salt the butter so nicely in it. Now, to churn with any kind of crank, or float churn, the process goes on by friction, which is continually wearing the grain of the butter during the operation, and when it is salted in the churn it is really grinding the butter and salt together, to the injury of the grain, and the butter so made will become rancid in a short time. This one thing, in my opinion, is the real cause of so much poor butter in all our markets, whereas, if it were properly churned and handled, it would be of excellent quality. "The keeping qualities of butter depend entirely upon the extraction of all the buttermilk and in preserving the grain." The correct principle of churning is by "concussion," which is obtained in the old dash churn.

[The churning is also done by concussion in the revolving churns, which throw the mass of cresm from side to side.—EDS. PRESS.]

Washing and Salting.

Washing butter must be recommended as the easiest and surest way to remove buttermilk. To wash it clean without injuring it, you should stop churning as soon as the butter has come and the buttermilk will separate readily. It is then in a loose open mass, the particles being not much larger thsn wheat, and at this stage draw off the buttermilk into a clean pail, so that if any particles of butter escape they may be skimmed off and put back again. Then prepare a pail of water, at the right temperature you wish to keep the butter, which is about 60 deg. in winter, and colder in summer, and dash it over the butter with a dipper, without moving either butter or churn, letting the water run all through the butter and out of the churn; then stop up the churn, put in fresh water enough to cover the butter, tempered as before, then give the churn half a dozen motions, dashing the whole mass together, and draw off the water. This washing is generally sufficient, but if it does not appear to be free from buttermilk, repeat it. It is now ready to be taken out for salting; one ounce of salt per pound should be used if it is intended to be packed, and one half ounce per pound if it is to be used immediately in a city market.

After a little practice, you will know by the amount of cream very nearly how much butter there will be when churned, consequently you can sift the right amount of salt for the churning. Then prepare the butter tray, by wetting it first with hot water, then with cold. Take the butter from the churn with ladles place a thin layer of butter in the bottom of the tray, sprinkle salt evenly over it, then a layer of butter and a sprinkle of salt, continuing thus until it is all in the tray, with a little salt on top, and now press the whole together with the ladle. Wring out a linen towel in salt water and spread over it, to keep the air from it. Let it stand two or three hours, as may be, for the salt to act upon it, then lay it on the butter-worker, press it a little, turn it and press it again. Let it stand again a few hours, when it may be worked and lumped or packed, the whole being done the same day in cold weather. The chemical action of salt on butter is to liberate the buttermilk, which contains the caseine, and to harden the grain; hence our object in letting it stand awhile before completing the process of working. Handling butter in this way, the grain will not be bruised in the least. Do not fail to notice the care taken not to injure the grain of the butter before it is salted. After it is salted the grain is somewhat hardened, and will therefore bear judicious working without injury.

White Butter.

If butter comes soft and white, snd the buttermilk will not separate from it, what shall be done with it? is a question which is often asked. Take it out of the churn the best way you can; salt it, using nearly twice as much salt as you would had it come in good condition; then set it away in a cool place until the next morning, when it should be turned over a few times, handled lightly, and set away as before. Continue to do so until the third or fourth morning, when it can be worked, and you will have very good butter, with fair color, ready for packing or lumping. The salt must have time to separate the buttermilk from the butter; it cannot be hurried out by working. Never allow the hands to come in contact with the butter during the whole process, but use wooden ladles at all times.

WINDOW ORNAMENTATION. — Glass may be made extremely ornamental in several ways, a few of which I will now describe, as perhaps some of our readers may not have heard of them: First cut out various figures from thin white muslin, Swiss, tarletan, or even tissue paper; stars, circles, rings, diamonds and squares of different sizes are among the best. Make some nice mucilage of gum arabic and paste them on the panes, making narrow lines, connecting them with strips of the material. Arrange all in tasteful designs, and over this give a coat of clear demar varnish.

SHEEP AND WOOL.

Points about Scab.

William Watson, of Jackson county, Oregon, writes an interesting letter to the *Country Gentleman*, detsiling some couclusions concerning the insects (acari) which cause the sheep disease known as "scab." He mentions some experiments made by A. W. Thornton, at the request of the New South Wales government. Mr. Thorntou says: "Acari will live sfter being removed from the wool at least three months, under very unfavorable circumstsnces, iu winter, during whioh period they will propagate their species in a donble form, one portion being rapidly developed to life and activity, and another more numerous portion being in the form of ova, which lie dormant for an indefinite period, but in a state to be vivified under favorable conditions, and having deposited their ova they die, but there is nothing to warrant the supposition that they msy not live much longer in favorable circumstances. The ova, under nstural conditions, are deposited on the cutis, and under the concretious of matter, and are not affected while torpid by external applioations, and, consequently, it is only the mature insect which is destroyed by dressing the sheep, and we do not yet know how long the ova may remain dormant. At the very least, no run where scabby sheep have been, can be declared clean for six months, and possibly for one year."

Commenting on these points, Mr. Jackson writes: "There is much to show sheep owners how careful they ought to be, and not return their flocks to infected corrals, and contaminated runs, sfter dipping, till they are certain time has cleaued them of infection. Never return to iufected corrals on any consideration, as the risks are always great, if the acari will live and propagate six months confined iu a bottle, so will they in lumber or brush fences, and among sheep mannre. One word more of advice. I observe year after year that more scab is disseminated through the rams when put to the ewes thim in any other way. The reason for this is obvious: Sheep owners, rather than be troubled with a lot of rams running about, put off till almost the last hour before purchasiug for the season's use. The rams they purchase srrive in apparent health, but before six weeks they find out that they are not only scabby themselves but a far greater mischief has taken place; their whole ewe flock has been infected. In Australia and New Zealaud, scab has been caused solely by contagion. It is true that at first some cases were attributed to spontaneous generation consequent on ill treatment or the poverty of the sheep; but fuller inquiry showed that they were due to contagion, and sheep have thousands of times been subjected to all sorts of bad treatment and privation without originating the disease in a single instance. Knowing that contagion is the cause, and that it is to be found iu almost every sheep car on the railroads by which you transport your rams, my advice is to every man to secure his sheep at least six weeks before they are required for service, *keep them in quarantine*, and wh ther clean or not, dip them *twice*, the same as though they were diseased. Make no exception, even although you know they are clean. Do this, and you will save much voxation, and possibly many thousand dollars."

United States Sheep Register.

We find in the Ohio *Farmer* the following as the result of the late meeting of sheep breeders at Coshocton: The name of the organization is "The National American Merino Sheep Register Association." Its objeot is to publish the first volume of the National American Sheep Register, and to perpetuate the registry of merino sheep in the United States by the annual publication of a volume of the register. The officers shall consist of a President, one Vice-President from each State represented, a Secretary, Treasurer and three examiners. These constitute a Board of Directors for the transaction of business not otherwise provided for.

The three examiners shall constitute a Board of Registration. They must be practical sheep breeders, and shall serve a term of three years, one to be elected each year from the members at large. They may be elected by ballot or proxy. Upon application by one or more persons to have sheep recorded, the Board of Registration may receive testimony in writing, or may go and examine the sheep and hear the testimony offered, deciding upon the number of points to which sheep are entitled according to the scale. The compensation for each full day's work is $3, with actual expenses incurred in going and returning, which must be paid by the applicant without regard to the decision in his case, or whether any of his sheep are entered or not.

After examination and decision, the Board shall furnish the Secretary a copy of their work, giving name—if any—number and scale of each animal admitted, and the Secretary shall then furnish the owner with a certified copy of same.

One person who shall be selected from the members of each State, is authorized to act with the Examining Committee while examining sheep in that State. Such action shall have reference only to the application of the scale, as to individual excellence.

THE GARDEN.

A Market Garden Near Antioch.

Those peculiar individuals who obstinately refuse to believe that irrigation is practicable in this valley will find a practical illustration on the New York ranch, which demonstrates not only the fact of its possibility, but its very great profitableness. On Sunday last, in company with a party of ladies and gentlemen, we visited the extensive vegetable garden of Antonio de Martini, situated about four miles west of town. Twenty-five acres are in cultivation. The little stream of water which flows down the canon from the Black Diamond coal mines at Nortonville is the secret of success. A dam was constructed which gives control of the water, and some portion of this extensive garden is irrigated every day throughout the summer months. Fourteen Italians are constantly employed and three large wagons are run daily the year round: one to Antioch, one to Somersville and Nortonville, and the other to Bay Point, Black Diamond and Pittsburg landing. Each wagon takes out about 1,500 pounds of fruit and vegetables daily. Every conceivable variety of fruit and vegetables is grown on this 25 acres, and the yield is enormous. The proprietor informed us that from his strawberry patch, containing one and three-fourth acres, he should this season sell $1,700 worth of fruit, besides using what was necessary for his 14 employees. Cabbages, onions, beets, peas, etc., are in all stages of growth. As soon as one crop is exhausted another is planted. Those farmers who are content with nothing less than 300 or 500 acres of land, and that sown to wheat, will here find a lesson worthy their attention. This Italian horticulturist will this season, from 25 acres, make more money than any farmer in the valley with the most favorable season for 10 years, and the secret is this small stream of alkali water. Without it, the proprietor informs us, he could not grow a spear of grass on soil of that kind. Here is a practical illustration of what we may expect from the completion of a canal in this valley. Instead of thousand-acre tracts of wheat, we shall learn that our soil can be made to yield more remunerative crops. The broad expanse will be subdivided into small lots, and each will be the home of a prosperous family. Energy, enterprise and industry are the qualities that are needed to do these things. The time will come when these resources will be made available, and the San Joaquin valley will yield millions where it now yields thousands of dollars. Our American farmers could learn a practical lesson from these Italian gardeners. They understand their business thoroughly, and their complete success on poor soil, commencing without means, during the past three years, shows of what our soil is capable by proper culture and means of irrigation.—*Antioch Ledger.*

USEFUL INFORMATION.

SPIRITS OF AMMONIA.—"A Farmer's Wife" writes an Eastern journal as follows: There is no telling what a thing will do till you try it. I knew ammonia, diluted in water, could restore rusty silks and clean coat collars, but when I got a green spot on the carpet, I tried half a dozen other things before I thought of that, and that is just what did the work effectually. I put a teaspoonful into about a teacupful of hot water, took a cloth and wet the spot thoroughly, just rubbing it slightly, and the ugly spot was gone. It is splendid for cleaning your silver; it makes things so bright as new without any expenditure of strength; and for looking glasses and windows it is best of all; and one day when I was tired and my dish cloths looked rather gray, I turned a few drops of ammonia into the water and rubbed them out, and I found it acted like a charm, and I shall be sure to do so again some day. I suppose housewives have a perfect right to experiment and see what results they can produce; and if they are not on as large a scale as the farmers try, they are just as important to us, and may make our work lighter and brighter too. Now, I do not believe in luxuriating in a good thing all alone, and I hope all the housekeepers will send and get a ten cent bottle of spirits of ammonia and commence a series of chemical experiments and see what they can accomplish with it. Take the boys' jackets, the girls' dresses, and when you have cleaned everything else, put a few drops in some soft water and wash the little folks' heads, and report progress.

To prepare skins for fur, mix bran and soft water sufficient to cover the skins. Immerse the latter and keep them covered for 24 hours; then remove, wash clean, and carefully scrape off all flesh. To one gallon of water (hot) add one pound of alum and one-fourth pound of salt. When dissolved and cool enough to admit entrance of the hand, immerse the skins for 24 hours, dry in the shade, and rub. Strain the liquor again, immerse the skins for 24 hours, dry, and rub as before, immerse for 24 hours in oatmeal and warm water, partially dry in the shade, and finally rub until entirely dry. This leaves the skin like white leather, and fit for immediate use.

A WEAK solution of cyanide of potassium cleans gold lace well.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

The Worthy Master in Napa County.

Editors Press:—In accordance with previous arrangements, I left home on Saturday last at at 5:30 A. M., *via* San Francisco and Vallejo for Yountville, Napa county, to attend the Grange picnic at that place, where I arrived about 10:30 A. M. with Brother and Sister I. C. Steele, who by solicitation had been induced to accompany me. We met Bro. Mayfield at the depot, who handed us into his spring wagon, and we were driven to the spot selected for the day's recreation and pleasure, which is situated on A. D. Clark's farm, in the foothills on the west side of Napa valley, about one mile southwest of Yountville.

The land is undulating and well covered with umbrageous oaks, whose wide spreading branches afforded ample shade for man and beast. The day was pleasant and warm, surrounded as we were on every side by smiling, happy faces, which, taken in conjunction with the chattering, warbling notes of the birds and children, appeared to vie with each other. Our view on every hand embraced green slopes, intermingled with wild flowers in rich profusion, and varying shimmerings of sunshine and shade; and beyond, in the cradle of the mountains, reposed the beautiful Napa valley, enrobed in green and gold.

There were present at the picnic representatives from all the Granges in Napa county, numbering, altogether, between 200 and 300. Most of those present had come many miles, and all, especially the children, desired refreshment before being called to labor. Consequently great baskets, which had hitherto been unobserved, began to emerge from under wagon seats, shawls and secluded nooks and corners, until there was marshaled a small army of them; and in the battle which ensued there was considerable crash of small arms, but when the smoke of the engagement cleared up there didn't appear to be any one hurt. The people were evidently satisfied, and the baskets did not complain so much as before the engagement. Strawberries and cream were plentiful, and cherries, which were ripe and fine.

Bro. Snelling from St. Helena had samples of a new variety of strawberries, the vines of which he received from the East by express. He calls them the "Col. Cheeney." The samples were large and fine in flavor and color, and Bro. S. says a prolific bearer.

After dinner we had a little talk, in which Bro. I. O. Steele and the writer took an active part, after which we left the grounds in company with all the 5th degree members at leisure and repaired to the Grange hall in Yountville. It is a very substantial hall built of brick, two stories high, the lower one being occupied by the principal store in town. This building belongs to a corporation of Yountville Grangers and cost six thousand dollars.

It was a part of the programme of the day to have the 5th degree conferred in form on a class of five or six members elected by the Grangers of the county to the Pomona Grange, and for this purpose we assembled at the hall, but owing in part to the lateness of the hour and the imperfected arrangements, it was decided that it would be better to administer the obligation and give the secret work—and confer the degree in form at some other more appropriate time. We barely had time to perform the work and give necessary instructions when the train came thundering along and we had to take and bid a hasty adieu to all, and break for the train. Napa Valley is not large but very productive. This year the crops are about an average, many parts of the valley being too wet for a successful crop. The people appear to be prosperous and happy, and with reason, for few countries can offer greater attractions. J. V. Webster.

Fruit Vale, May 7th, 1876.

The Oregon Grange.—We receive a private letter from a member of the Order in Oregon from which we quote as follows: "Our Orders now prospering finely and we have a fine prospect ahead. Spring has just come and farmers are very busy putting in their crops. We have had more rain this winter than I ever saw before in Oregon, but we have a fine prospect for fruit. We have have had no frost, but all rain."

Adjournment during Harvest.—San Luis Obispo Grange has decided not to hold the usual bi-monthly meetings during the harvest season, and has adjourned subject to the call of the W. M.

From the Granges.

Salida Grange.

Editors Press:—The Salida Grange celebrated its anniversary on the 5th inst. by a basket picnic, music and oration. The picnic was held at Salida in the Grange warehouse. There was reared within it a capacious platform for the speaker of the day and choir. The rostrum was festooned with flowers and otherwise beautifully decorated. In the background, in relief, were the letters "S. G., P. of H., No. 8."

The assemblage was called to order by Worthy Master J. D. Reyburn, who stated the object to be to exemplify and carry out the social feature of the Grange, and to commemorate the day upon which Salida Grange was organized.

After the Worthy Chaplain, Brother Ackenberry, had delivered his prayer, Past Master J. D. Spencer was introduced as the orator of the day. I regret that I can only give an imperfect synopsis of his splendid effort, relying mostly upon memory.

Bro. Spencer congratulated Salida Grange upon their success in their undertaking, and in their steady devotion to the fundamental principles of the Order. He spoke of the benefits that result from frequent deliberations among farmers, compared the natural productions of countries where agriculture was made honorable with those where agriculture was considered degrading, and proved conclusively that the best, happiest and most enlightened communities were to be found where due honor was paid to agriculture. Said he: "Wherever in any age or clime flourished the arts and sciences, also flourished agriculture. Nations strong and great in war cultivated the soil. The science of agriculture has a tendency to develop and augment the mental and physical powers of the human race." He spoke of the origin and rapid growth of the Order of the Patrons of Husbandry, comparing the excitement incident to its first stage to the force of a mighty stream that carries in its murky waters the debris from the uplands. He stated that the float-wood that once pressed upon its bosom had been carried to the sea; that the Order was now established upon a firmer and more enduring basis; that a calm second thought and the reverses of the past had suggested the necessity of discipline among the members, and that discipline was essential to success.

Bro. Spencer dwelt at some length on the social and educational features, declaring that they were the most important; that at length the Order in California was beginning to realize it, and that his views in this regard had never changed; that the Grange had taught farmers not only how to talk but also to think. That the immediate result was pecuniary gain to the farmers in the matter of wheat, grain bags and storage. That if any member doubted that an advance had been made intellectually by the farmers, let him visit the various Granges of Stanislaus county and listen to the able debates among farmers, then call to mind the defunct farmers' clubs, where the real farmer did little less than vote, and where the affairs of the club were managed oftentimes by men in other avocations. He answered the objection to the Grange on account of secrecy by a reference to the *family* and the propriety of keeping *its* secrets. Bro. Spencer stated in conclusion that the principles as tanght by the ritual were sound enough to insure perpetuity to the order, and predicted a bright future for the Patrons of Husbandry and greater efficiency in carrying out needed measures of reform.

The address was well received by the brothers and sisters, as also was the music, which was rendered by a large choir with Past Master J. P. Vincent as organist. After the address the guests were invited to partake of a No. 1 feast, where the tables were literally covered with everything to tempt the most fastidious taste, and where lemonade was as abundant as water. Bless the big hearts that offered the feast and the tiny hands that prepared it!

After the repast we spent an hour or two pleasantly among acquaintances, then bade adieu to Salida. The officers and members of Salida Grange have our heartfelt thanks for their polite attentions. Vital E. Bangs.

Modesto, Cal., May 8th, 1876.

Nicasio Grange.

Editors Press:—Having accepted an invitation of Bro. Thomas H. Estey, W. M., to visit his Grange, on Saturday, at 7 A. M., found myself with my chief worldly treasures, to wit: wife and two babies, bound for Nicasio, on the steamer *Contra Costa*. The morning was beautiful in the extreme; the sky was as blue and cloudless as only California skies can be. We gazed at the large red buildings at San Quentin with a shudder, and then quickly seated ourselves in a comfortable car of the N. P. Coast R. R., and were soon speeding towards San Rafael, and then toward our destination. The country was never more beautiful; the bountiful rains of the past winter have produced an extra supply of lovely flowers and grass, which renders the scenery on the road, if possible, more beautiful than usual.

A cordial welcome awaited us, and were all soon at home in their flower decked cottage, and it was not many minutes ere we were at the dairy house, were we disposed of about 17 quarts of delicious cool buttermilk, and devoted the balance of the day stretched out on the grass, under a live-oak tree, enjoying the cool shade and breathing the perfume-laden air.

In the evening we attended the meeting of Nicasio Grange, assisted in the initiation of two brothers in the first and second degrees, made them a little talk and adjourned at 11:30 P. M.

One of the most pleasant episodes of our visit was an impromptu picnic on Sunday on the banks of Nicasio creek. We fished down the stream and caught some fine trout, and finally reached the place where a gay and happy party were assembled in a cool grove, and found a lunch spread out, picnic style, such as only good Grangers know how to prepare and enjoy. We had a great deal of fun; Bro. T. was caught hugging young sister T., but he excused himself, saying it was not hugging, it was only a Rural Press. We thought that we would like to subscribe to the new edition of the Press, which is elegantly bound in pretty muslin.

Monday morning we spent with the babies walking over the flower decked hillsides and valleys, reveling in their enchanting beauties, and worshipping at nature's shrine. The scenery about Nicasio valley is so beautiful that one never tires of enjoying it. Is it to be wondered at that Californians are so attached to and proud of their State? Surely have they cause for it, for their lots could not have been cast in a fairer land. In the afternoon we all returned to this city, having very much enjoyed our visit to the country and thankful to the good brothers and sisters who so kindly entertained us. T. H. M.

Galt Grange.

Our Grange met last Saturday. Bro. H. Chase was elected Overseer, vice Bro. Carr resigned; Sister Eva Wright, Secretary, vice Bro. Fifield resigned.

The fourth degree was conferred on Sister Cinith Wiser, after which the good things to eat were brought forward, which all participated in and seemed very much to enjoy.

The feast being over, Sister Burke, our accomplished organist, performed the *music* for a number of fancy dances, the entertainment closing with a sort of a *hop* waltz by Brother Chase and Sister McIntire, the latter bordering on 70 years of age, and moving about the hall with as much activity as though but 20. This caused great merriment, and all went home well pleased with the day's doings. Our regular monthly meeting is the first Saturday of each month, an intermediate meeting third Sunday after.

The crops in the vicinity are generally very good. Bro. John Brewster, a member of our Grange, has opened a large dry goods and grocery store, under the firm name of Brewster Bros. A. B. Bryant.

Galt, Sac. Co., May 8th.

Yuba City Grange Picnic.

Editors Press:—The third annual picnic of this Grange, of which I made mention in a former communication, came off as announced, on the 4th instant. We anticipated having a nice time, but were agreeably disappointed by its proving successful beyond our greatest expectations. Not only did the members of the Order attend but the residents of both town and country turned out *en masse* to participate in the "Grangers' picnic." The weather was all that could be desired and not the slightest accident occured to mar the harmony of the occasion. A full brass band was in attendance, which made the grove re-echo to its thrilling notes as it discoursed national and patriotic airs, making the aged forget their weight of years and youthful hearts to swell with patriotic pride. There was also a quadrille band in attendance, which furnished lively music to those who love "to tip the light fantastic," and judging from the manner in which the floor was patronized they were largely in the majority. There were many new features introduced in the programme, heretofore unknown at picnics, which added greatly to the enjoyment of the day. The ladies of the Order acquitted themselves admirably in the literary exercises; and by their actions answered, in the most convincing manner, the question so often asked by the uninitiated, "What benefit do women derive from the Grange." The members of the Order sang several select pieces in fine style, to an organ accompaniment. The organ was brought there for the purpose and presided over by one of the sisters.

But a crowning feature of the occasion was a Mayday address delivered by Richard Bayne, Esq. Mr. Bayne is a young lawyer residing in your city, hence you will readily infer that he is not a Patron, but no one who heard his words can doubt that he has the welfare of the farming community at heart. Some may think his address was but so much flowery talk, to please the Grangers and flatter their vanity; but to such people I would say, that those who know the gentleman best give him credit for being the soul of honor and a man of truth.

The Hon. C. P. Berry spoke at some length on topics of local and general interest, giving his views on political economy in a very lucid manner, and denouncing the present corrupt state of politics as tending to drive honorable men from the political arena, while knaves were elevated to positions of trust, to the injury of the people and the disgrace of the nation.

Mrs. Mary E. Douglas read with splendid effect a poem entitled "High Tide on the Coast of Lincolnshire," and at the close was loudly applauded. Mrs. Douglas was formerly Secretary of this Grange, and on several occasions has shown marked ability in reading.

The young people of both sexes proved on this occasion that they were not troubled with inertia as much as they are generally accused. The young ladies entered the lists in gleeful competion to prove who had the best right to carry the honors in several foot races and the trade dollars offered by the committee as prizes to the winners. Diana's nymphs never looked more lovely than those young ladies, with cheeks aglow and hair streaming in the wind. The young men showed a positive disregard for to-morrow's aches by the manner in which they indulged in jumping and running; even some whose hairs are slightly frosted became enthusiastic over the sports of by-gone days, and entered into the spirit of the occasion with all the earnestness of little boys.

Taken altogether, it was a most pleasant affair, and all who came went away with a higher estimate of the Grangers, carrying home pleasant recollections of their picnic.

M. F. Honan, Sec'y Yuba City Grange.

Union Meeting with Castoria Grange.

Editors Press:—A meeting of the members of the various Granges in the southern part of San Joaquin county will be held at the hall of Castoria Grange, about two or three miles east of Lathrop, on Monday, the 22nd of May; hour of meeting, 10 A. M. It is hoped and expected that the occasion will be one of interest and profit, and the presence of some, at least, of the officials of the Order, or the associations connected with it, is assured. The presence of all who can give strength and confidence to our cause will be gratefully appreciated.

F. J. Woodward.

[This notice was received too late for insertion last week.—Eds. Press.]

Sonoma County Grange.

This County Grange met in Santa Rosa on Wednesday, at the Grange hall. Bennett Valley Grange was represented by Nelson Carr and wife and G. N. Whitaker; Sonoma Grange by Mr. and Mrs. L. Goss and Mrs. Hardy; Petaluma Grange by W. W. Chapman, S. Skillman and Miss Skillman; Geyserville Grange by Alex Stites and Mr. Bosworth; Healdsburg Grange by B. B. Capelle; Sebastopol Grange by Mr. Gregson and Mr. Hunt; Bodega Grange by P. Ryan and wife; Santa Rosa Grange by G. W. Davis, S. T. Conlter and wife, John Adams and Mrs. Mills; Two Rock Grange was also represented, by whom we did not hear. The meeting was of more than ordinary interest. A splendid collation was served in the hall at 12 o'clock.—*Sonoma Democrat.*

Stockton Grange Picnic.

The members of the Stockton Grange, with their friends, held a picnic at Good Water grove on Saturday last, which was one of the most pleasantest events of the season. The ladies furnished the eatables for a dinner, which was greatly enjoyed by all. A band of music was in attendance and dancing was participated in by all who desired. If this meeting is a sample of the social gatherings of the Patrons of Husbandry, it is not strange that the Order has become popular throughout the country.—*Stockton Independant.*

In Memoriam.

At a regular meeting of Carpinteria Grange, No. 51, P. of H., April 15th, 1876, on motion a Committee of three was appointed to draft resolutions of condolence and respect to the memory of Brothers Barnard and Franklin, lately deceased, which were adopted as follows:

Whereas, Since we last met it has pleased the Great Ruler of the universe to remove from our midst our esteemed brothers, W. C. Barnard and J. Franklin, therefore

Resolved, That in the death of our beloved brothers we, as an associated body, have lost two efficient members, and the community men whom it can ill afford to lose.

Resolved, That we extend to their families and all those who are bound to them by ties of love and friendship our heartfelt sympathies and condolence in this sore bereavement and sad affliction.

Resolved, That these resolutions be spread upon the records, and a copy be sent to the Rural Press, San Francisco, with a request for publication.—[Committee: M. Whitford, B. S. Sutton, John Pellenger.

By Tomales Grange, [No. 153, May 13th, 1876, the following resolutions were adopted:

Whereas, It has pleased an all-wise Providence to suddenly remove from our midst our beloved brother, John C. Parker; therefore be it

Resolved, That in the death of Brother J. C. Parker the community has lost one of its best citizens and our Grange one of its most faithful and efficient members.

Resolved, That we deeply sympathize with his bereaved family and relatives, and that a copy of these resolutions be sent to his family.

Resolved, That these resolutions be spread on the minutes of this Grange, and that a copy be sent to the Rural Press and Marin County *Journal* for publication.

Resolved, That we drape our charter and wear the usual badge of mourning for 30 days.—[Committee: Mrs. O. Hubbell, Mrs. J. Buchannan, R. H. Prince.

Meeting at Castoria.—There will be a union meeting of the Grangers of San Joaquin county on the 22d of May at 10 A. M., at Castoria Grange hall. The following speakers will address the meeting: J. O. Cressey, Daniel Inman, J. D. Blanchar, T. J. Brook and J. Earl.

Farm Products by Weight.

A proposition was received from Salinas Grange in reference to selling *all* farm products by weight. Subsequently referred, with other unfinished business, to the Executive Committee.[—California State Grange Report, 1375.

We think the above proposition should receive the careful consideration of the Committee. One of the Snbordinate Granges in this State has already adopted resolntions to this effect. We notice in the correspondence of the *Country Gentleman* the following forcible statement of the case: "It is, and for aught I know always has been, the practice to sell eggs by the dozen, without any regard to their size or real value. There are probably but few who ever consider the real difference in the size and weight between a dozen small and a dozen large eggs. Many of the small eggs in the market will not weigh a pound to the dozen, while the largest will weigh over one and one-half pounds. My largest Brahma eggs will weigh one and three-fonrth pounds to the dozen; they will average one and one-half pounds. Such eggs are really cheaper at 45 cents than small ones are at 30 cents a dozen. A Mr. Harris of Boston says he weighed some of Plymouth Rock eggs, and the largest weighed 39 ounces to the dozen; the small sized eggs of the same sort weighed 27 ounces. Yet most purchasers would be unwilling to pay any more for a dozen of Mr. Harris' large eggs than they would have to pay for a dozen of the smallest in the market. The time will probably soon come when eggs will be sold by weight, or a standard weight for a dozen will be established by law."

Agricultural Notes.

California.

ALAMEDA.

Salt Marsh Product.—*Independent*, May 13: When at Dumbarton point this week we saw some barley growing in the salt marsh land, which had come to a head and looked as well as if grown on the upland about here.

AMADOR.

Potatoes.—*Ledger*, May 6: There is abundant evidence to show that there is no part of the State better adapted for raising potatoes than the foothills of Amador county, although their cultivation has never assumed much prominence heretofore. Last year Mr. Shine, whose ranch is situated between Jackson and Sutter Creek, gathered 11 tons of potatoes from half an acre of land—the aggregate yield of three different crops. Encouraged by this result, he has determined to enter into the business more extensively this year. He has put in four tons of seed, covering an area of 16 acres. The plants are all above ground, and present a healthy appearance. Shine has also put in about 10 acres of beans of different varieties. His ranch is well situated for irrigating, and he is confident of reaping a substantial return for his toil.

CONTRA COSTA.

Agricultural Society.—*Gazette*, May 13: At the annual meeting of the county agricultural society, held on Saturday last at Pacheco, D. F. Majors was re-elected President, and E. W. Hiller, Secretary. Wm. Lynch and Walter Renwick were elected Vice-Presidents. Henry C. Gallagher and James F. Walker, Directors; S. W. Johnson, Treasurer, and I. J. Smith, J. H. Hazeltine and T. Z. Witten, Visiting Committee, to inspect farms, orchards and vineyards entered for the premiums. The Treasurer's report exhibited a balance to the credit of the society in last year's receipt and disbursement account, of $564.83, but $300 of this sum, left for convenience on special deposit with Fassett, McCaulley & Co., is considered irrecoverably gone. The time for holding the fair this coming fall is to be determined by the Board.

FRESNO.

Warehouse.—*Expositor*. May 10: We are reliably informed that Messrs. Silverman & Einstein have perfected all arrangements for the erection of a warehouse in this village. They have secured grounds on the railroad reservation near the head of Tulare street, on the land formerly occupied by the stock corral. The building will be of wood and 30 by 100 feet, but it will be further enlarged as business increases. It will be used for storing grain, wool, hides, etc. The completion of the enterprise will fill a need long experienced in this neighborhood.

KERN.

The Cottonwoods.—*Courier*, April 29: The cottonwoods are in full fruitage and the air is full of floating fleeces ravished from the trees by every wandering breeze, and wherever a vagrant air can stray the cotton fleece is wafted, a nuisance and a litter and a constant vexation to housewives. On the ground, in the grass, against any obstacle which will detain it, it is piled in filmy drifts, soft and delicate, like little truant clouds wandering from their native heaven to play hide and seek below. On the trees it hangs in full blown bolls, and clusters of unburst bolls exactly resembling green currants also give a very pleasing effect to the appearance. Still it is a bore and we would gladly yield the picturesqueness for the sake of comfort and cleanliness. We are told that the latter consideration may be realized by planting only those trees whose bark is dark and deeply corrugated. The light barks are said to be the females, the cotton-producing trees, while the dark barks are the males, decent, well behaved trees, with no fnrzy or fleecy nonsense about them.

LAKE.

Co-operation.—*Democrat*, May 13: The farmers in the vicinity of Lakeport have organized a co-operative association, with the nominal capital of $30,000. This association has located itself in the store formerly occupied by Bigerstaff & Johnson, and is prepared to do general merchandising business. It has been started by men of means, both in and ont of the Grange, and will be conducted in precisely the same manner as any other store, making bids by strict attention to business and the wants of the community, for the custom of all.

Fine Milkers.—Mr. G. T. Adams, the Lakeport milkman, is the owner of three cows, half Ayrshires, and their average yield per day is 17¼ gallons of milk. At night they give nine gallons and one quart. One of them gives at a milking three gallons and three quarts.

LASSEN.

Flax.—*Farmer*, May 6: In reading your article on "What are we Doing in Flax," a thought was brought to my mind that might perhaps be the means of opening out a new industry for this county; at any rate I offer it for your consideration, and if yon think it of sufficient interest, to the perusal of the farmers of Lassen: When first I settled in this part of the country, it was not for the purposes of agriculture or stock raising; but being a lover of botany and habituated to close observation of everything around me, in walking over the country I was struck with the amount of wild flax I found everywhere growing in this part of our county. I have gathered, on the dry, rocky hillsides and in the valley, where the soil did not average six inches, flax stalks two feet and over in length, with good, stont fibers. Now, I have always thought that in cultivating the soil we might, with great advantage, take any hints that nature throws out to us as to the adaptability of any one plant or another for that particular soil; and if flax grows thus thrifty in a wild state, what might it not be made to do under cultivation, and might not land that otherwise is comparatively worthless be made a profit to its owners and the county at large?

LOS ANGELES.

Bee Keepers' Picnic.—*Express*, May 13: The bee keepers' picnic at the Los Angeles apiary, on Saturday, was not so largely attended as anticipated, but a very pleasant, interesting and instructive time was had. During the day the visitors examined the well-appointed apiary, which now consists of 435 hoxes, against 268 on the 1st of February. The efforts of the managers to Italianize the bees has been successful. The honey yield per hive for the season will be 125 pounds. In the afternoon a meeting of the bee keepers' association was held, and matters of interest to the industry were discussed. Mr. A. J. Davidson moved that when the funds of the organization would warrant it, a library should be purchased and a librarian elected. The object of this is to obtain a full collection of information as to bee culture. Mr. Levering seconded the motion and urged the necessity of obtaining a complete list of the bee food flowers and plants. The resolution was finally passed. The general tenor of the remarks from the representatives of the several apiaries shows that the bee culture is profitable and is in a high state of excellence.

MARIN.

Mr. Grinter's Fish Ponds. — Petaluma *Argus*, May 12: Mr. Grinter is a resident of Baulinas, and first came to Marin county in 1856, having crossed the plains in 1852. He and his brother three years ago commenced the business of fish culture at the town of Baulinas. They have seven ponds, which vary in size from 40 feet square to three-quarters of an acre. The ponds, which are fed by a mountain stream, are about five feet deep and separated from each other by narrow canals, across which are placed wire screens that prevent the fish from passing from one pond to another. Mountain trout are the only kind of fish that have yet been introdnced in the ponds, but it is the intention of the proprietors to soon put in some carp and other varieties. At the time of one of the heavy storms last winter, a heavy flow of water down the creek and an uncommonly high tide coming together caused an overflow of the ponds, and it is estimated that about 10,000 fish, large and small were lost. With the exception of this mishap the experiment has been a success. The fish are fed principally on "scrap meat," *i. e.*, the matter that is left after trying out hog fat, cut fine. When this is thrown into the ponds the fish rush forward like a lot of chickens or pigs when they are fed. Sometimes the fish jump nearly two feet above the surface of the water, and when near the bank alight on the ground and roll back into their native element. Mr. Grinter says fish culture is a pleasant and interesting pursuit. Fish in his ponds eighteen months old weigh from two and one-half to three pounds. Mr. Grinter informs us that fish grow and fatten as do other animals, according to the amount and quality of food given them. The matter of food is a small item, so far as the expense is concerned. In ponds that are fed by continually flowing streams, ten cents a day is all that it will cost to maintain 50,000 trout.

MERCED.

New Use for Straw.—*Valley Argus*, May 13: Our friend, Samuel C. Johnson, who lives a few miles to the south-east of town, has discovered a new use for the waste straw of his harn-yard. Instead of burning it to get it ont of the way he uses it to grow potatoes in. Early in the spring he conceived the idea of planting potatoes and covering them under a deep bed of straw to protect them from frost. He tried the experiment by first plowing the ground and placing the seed potatoes on the top of the loose earth and then covering them with a deep bed of rotted straw from the top of his stack, and now he has a good crop of new potatoes. Farmers, try the experiment, and you will find it successful.

Haying with a Header.—While in the country this week we saw, upon the ranch of Messrs. Dewey & Applegarth, hay being cut with an 18-foot header. The machine did the work of four Buckeye mowers, in addition to which it left the hay in winrows, thus saving the expense of raking, and likewise the waste of hay left by the rake in the usual process.

MONTEREY.

Pajaro.—Editors Press:—This valley is considered by many of the old settlers to be the garden spot of California, but should a stranger happen to pass through our valley at the present time he would most assuredly think the garden had been badly neglected. The past winter being so extremely wet, it was impossible to farm the land properly, consequently the most of the grain is very foul with mustard and turnip. Many of the fields were so wet as to cause considerable grain to rot, which makes the fields look very spotted. From the present appearance Pajaro valley will not have more than half a crop of wheat and barley, but the indications are favorable for a large fruit crop. There will be a much larger summer crop planted this year than there was last. Haying has commenced in this valley. The hay crop will be light.—Truth.

PLACER.

A New Departure.—*Argus*, May 13: There is in the neighborhood of Auburn a vineyard, in a very thrifty condition, with well defined bunches of grapes already in sight, the site of the vineyard being over 100 feet above the ravine, and which has never had a drop of water conveyed to it in any other way than by that of rain. It is the theory of the proprietor that grapes that are grown through the application of an artificial supply of water are more or less filled with water, and do not compare with those which grow without that aid. In setting ont the cuttings in this vineyard, deep trenches were dug and the vines planted deep down in the earth, and for two or three years have exemplified the wisdom of the plan by bearing the finest grapes in great profusion, without asking for any irrigation. The subject is worthy of investigation by grape growers, for if this end can be accomplished in one place, why not in another, and if grapes can be grown without irrigation, or a supply of water other than that furnished by nature, the work of the vine grower will be much simplified.

SANTA BARBARA.

New Roads.—Guadalupe *Telegraph*, May 13: We congratulate the farmers of this valley on the cheering prospect of the early opening of two important roads. In conformity with resolutions adopted by the last farmers' meeting, the committee have been engaged all this week surveying out a route to Point Sal landing *via* the Bill Hudson canon; and work on it will be pushed right ahead. This road, when completed, will be of great utility to this entire section, and will greatly facilitate the movement of our crops to a shipping point. In our opinion, opening this route and increasing the facilities for teaming to and from Point Sal, is the wisest thing our farmers could have done, both as regards the present and the future. The road to San Luis Obispo by way of the Pismo beach is so urgently demanded by the interests of a large portion of that county, that its early construction is almost assured. Being nearly level, with only two miles of sand to pull through, this road, as soon as opened, will become the great thoronghfare for stage and other travel, and for teaming to and from San Luis landing. In fact, we know of no road so badly needed as this, or one that will give so general satisfaction; and it is to be hoped that the Board of Supervisors of our sister county will at once grant the prayer of their petitioners, and lay out this road.

SANTA CRUZ.

Angora Goat.—*Sentinel*, May 6: Landrum & Rodgers, of Watsonville, recently sold and shipped to R. H. Nourse, of Carpinteria, Santa Barbara county, a fine Angora buck, valued at $200.

SAN LUIS OBISPO.

What Can be Done.—*Gazette*, May 3: As an illustration of what energy and determination can do in our county, when intelligently and persistently directed, we would point to Mr. F. Parker, who has a small farm of 160 acres of land in the vicinity of Morro. Some seven years since Mr. Parker purchased the place in conjunction with a partner. It was wholly given up to wild growth, was overrun with sage brush, and from its appearance one would have conceived but a poor opinion of its agricultural possibilities. Mr. Parker for a long time found it necessary to work at another business in order to support existence, and could only devote his spare hours to the work of rendering his surroundings more pleasing, and at the same time more profitable. His place now blooms like a garden. The acacias, which grow there the year through without receiving any check or hurt from frost, have been utilized for fencing or hedging. Mr. Parker devotes his land to cultivating both grain and potatoes. That the yield is good and the returns profitable can well be believed from the fact that he purchased his partner's interest last fall, paying $3,000 therefor.

SISKIYOU.

Increase of Acreage.—*Union*, May 6: We learn that the farmers of Scott valley are putting in larger crops than usual this year, and that a great amount of grain will be sown. Some farmers, particularly those on the east side of the valley, have got mostly through seeding, while some on the west side have not got through plowing yet, their ground being too wet at present.

SONOMA.

Potatoes.—*Argus*: There are very few localities in the State in which so large a quantity of potatoes is produced annually as in the vicinity of Petalnma, and none that yields a better quality. A large number of farmers hereabouts have become rich by raising potatoes, and there is a strong likelihood that many others will do likewise. It is not many years ago that a considerable portion of the surface of the country south and west of Petaluma was quite heavily timbered, and was considered of small value for agricultural purposes. The trees and brush have been cleared away, and it is now known that these lands are among the most valuable in the State. They are well adapted to the production of vegetables of all kinds, and particularly of potatoes. The best potatoes and largest yields in the county last year were produced on these lands. The past season was a very favorable one for potato-growers in this vicinity. Prices were high, and the yield above the average. The blight, which afflicted some portions of the county and Marin, did very little damage in this immediate vicinity. Planting has commenced this year, and it is certain, if the nearly uniform opinion of our farmers is to be considered as authority, that a good many more acres of land will be devoted to potato culture in 1876 than last year. From inquiries made among potato buyers and producers on Monday and Tuesday of this week, we conclude that there were then about 5,000 sacks of last year's crop in this city and stored on adjacent ranches. The new crop is coming in from the southern coast, and immense quantities have been shipped to the State this spring from Salt Lake. At one time this winter the price in this city was as high as $2.10 and $2.15 per cwt., and in San Francisco, $2.30. Even at these figures a good many producers refused to sell, and now they are compelled to take about half as much.

San Antonio Cheese Factory.—The proprietors of the cheese factory on San Antonio creek expect to move their establishment to Petaluma before the commencement of operations next season. A large portion of the milk they use comes from ranches nearer Petalnma than the point where they are now located, and for this and other reasons a removal is desirable. The factory is a success pecuniarily and otherwise, and is a source of profit both to the proprietors and those who supply them with milk. They are now making about 1,100 pounds of cheese per day. Operations will be discontinued about the 1st of July.

STANISLAUS.

Heavy Grain.—*Herald*, May 13: Stephen Rogers, of Paradise, four miles from this town, makes a handsome exhibit of grain growing in his 1,400-acre field, on the Tnolumne river. The growth is very heavy—100 acres in barley, averaging 80 spears from one kernel, and 100 kernels to the head. The wheat, 1,300 acres. Chile and Proper, is well up with the barley in plump heads. The products of this field will be creditably represented at the Centennial, Mr. Rogers intending to take sheaves next month to the exposition.

SUTTER.

An Egg Bonanza.—*Banner*, May 4: A couple of our citizens made a visit to the tules a few days ago, which by the aid of a small duck boat they penetrated far and near. They struck a bonanza in wild fowls' eggs, as the sequel will determine. For miles together the tules are now covered with water, and they are the abode of thousands of aquatic fowl of ever species—ducks and mudhens predominating. Our sportsmen, whom we have reason to believe have made the prominent characteristics of these birds a study, tell us that these fowls when the water is low will visit these sections and tug at the tules until they succeed in breaking off vast quantities of it, which, when the water rises, they gather and so mat and intertwine together that it will float and carry their weight. On these floating masses they lay their eggs. The number of these floating masses and the eggs found upon them is the foundation for this eggstraordinary bonanza in this sort of duck fruit. In an afternoon they gathered 45 dozen of these eggs, and could have doubled the number if the capacity of their craft had permitted it.

TUOLUMNE.

A Good Hint.—*Independent*, May 13: Merchants are getting their potatoes from below. Farmers, this is a sign that your business is not up to an intelligent standard. Those dollars ought to find a lodging in your own pockets, instead of being sent away for what can be better produced at home. And while we think of it, why do you allow butter to be imported; why permit pork, hams and bacon from abroad to crowd ont the legitimate products of the farm? The farmers of the East do not live on hay alone, and is our soil and climate inferior to any of the rock-ribbed, snow-covered land of sunrise?

Our Homestead.

BY PHŒBE CARY.

Our old brown homestead reared its walls,
From the wayside dust aloof,
Where the apple boughs could almost cast
Their fruitage on its roof:
And the cherry tree so near it grew,
That when awake I've lain,
In the lonesome nights I've heard the limbs
As they creaked against the pane;
And those orchard trees, oh, those orchard trees!
I've seen my little brothers rocked
In their tops by the summer breeze.

The sweet brier under the window sill,
Which the early birds made glad,
And the damask rose by the garden fence
Were all the flowers we had.
I've looked at many a flower since then,
Far brought, and rich, and rare,
To other eyes more beautiful
But not to me so fair;
For those roses bright, oh, those roses bright!
I've twined them with my sister's locks,
That are laid in the dust from sight!

We had a well, a deep old well,
Where the spring was never dry,
And the cool drops down from the mossy stones
Were falling constantly:
And there never was water half so sweet
As that in my little cup,
Drawn up to the curb by the rude old sweep,
Which my father's hand sat up;
And that deep old well, oh, that deep old well!
I remember yet the plashing sound
Of the bucket as it fell.

Our homestead had an ample hearth,
Where at night we loved to meet;
There my mother's voice was always kind,
And her smile was always sweet;
And there I've sat on my father's knee,
And watched his thoughtful brow,
With my childish hand in his raven hair—
That hair is silver now!
But that broad hearth's light, oh, that broad hearth's light,
And my father's look, and my mother's smile,
They are in my heart to-night.

Farm House Chat.

[Written for the PRESS by MARY MOUNTAIN.]

The speech of my Uncle Toby upon national dishonor and individual corruption may have begun with the three notorious B.'s, or with the trada dollar swindle, or the forgeries of Mrs. E. Tupper, the famous bee woman of the West; but it darkened over a wide field of discouragement and grew in weight and momentum until I gave up all hopa of using such heavy material for chat, and would as soon think of digesting the cook book, covers and all.

Some sort of demonstration was to bo expected from a man who had absorbed the contents of several journals bristling with startling developments, sickening revelations and statements of reliable rascality; and who had otherwise braced himself up by three days of suppressed indignation over the "established order of going to the dogs."

Of course it might finally be unsafe for him to keep still any longer; yet it was a pity to waste such burning eloquence upon two low spirited women, who were trying not to go into parmanent mouroing over the sins of the nation.

Aunt Doxy inclines to anchor in the past, and from those vast depths she gathers hope for the future, and is sure to sniff at Uncle Toby's fierce speeches as an outcome of modern extravagance.

"Never mind, my dear. Men talk too much with their mouths. No use at all to worry over trouble. It all goes up in a lifetime. There's plenty of honesty in the world yet; but too many newspapers—reporters skiting around and telling every mean thing 'from Dan to Bashaby.' It was all so different when I was young, and everybody minded their own business. If anybody cheated he was shunned like pizen.

"There was old 'Half-a-dollar Bangs,' got that name because he couldn't square up the town treasury accounts into half a dollar. It stuck to him all his life, and *wasn't he jeered?* Never got another office; and no more did old 'Skimmings,' who was Squire Dolson till he invited the young folks to a maple sugar party, and then wouldn't give them anything but the skimmings.

"But a nickname didn't stick to anybody unless they deserved it. Shirky Ann Davis lost hers as soon as people began to see that she was no shirk, but a little smarter than her neighbors. You see it was away back there 40 or 50 years ago when the early settlers hadn't the least notion of fixing up a kitchen to make work handy, and 'twas all the fashion to wash up the dishes in a big iron pot and squat down on the hearth to do it. But Shirky Ann was too smart for that, and she puts a piece of board on the table, lifts the pot up on to it and washes the dishes without so much as bending her back or scorching her face. And O, how the neighbors jeered and called her Shirky Ann; but she never flinched, and finally some had sense enough to follow her example, and that was the beginning of a new fashion in dish washing."

This story of Aunt Doxy's has always seemed a curious illustration of the extreme slowness of our progress in every-day matters.

Does any one feel sure that we are not committing even now some ridiculous absurdity that might almost rank with that foolish old way of washing dishes?

In the RURAL of April 1st I find a most interesting question under the head of

"Sensibly Made Clothing."

"In dressing children, why do mothers make the waistbands to button behind instead of in front, where children three or four years old could button themselves in? It would save mothers so much labor and give practice to the nimble, clumsy little fingers. I should like to see some hints in the RURAL on the subject of comfort and economy in children's wearing apparel. UNCLE JOHN."

Now, what do the Aunt John's say to that?

If we all try together no better hint can be given than the question quoted above; and if every mother feels as I do, her face will be hot as she asks herself, "Why did I never think of that before?"

When with painful awkwardness I began to dress my first baby, it seemed horrible to have to turn the helpless little thing over and over so many times while putting on and fastening the clothes. Finally I did learn to fasten the skirts in front, when I found how baby disliked to be turned face downward, but I was not bright enough to carry out the idea and make it serviceable all the way along. In later years, however, I gave much study to the convenient arrangement of garments, and have often talked with other mothers about it, but they generally think it too much trouble to make changes, and fail to see that it would be labor-saving in the end.

Yet I will not agree with that fierce radical, Uncle Toby, who declares that women hate to be bothered with improvements, and will stick to the old way even if you show them a better one.

"Why, sir, I can remember when cooking stoves were first introduced, and nearly every woman would have kicked hers out of the kitchen if it had not been too heavy for her. The men soon found there was great saving of fuel and were bound to keep them; and if they hadn't been as firm as a rock about it, you women to-day would be cooking before an open fire with a Dutch oven like your great-grandmothers. And I know of women to-day, sir, who won't use a clothes-wringer! Think it won't wring quite so nice as their own hands!"

But, again, you will hear this hot-headed old fellow crying out that "women are never satisfied, always wanting a change. And the mischief is they never seem to know exactly *what* they want. Why, sir, not one woman in a thousand can plan her own kitchen so well as a man can plan it for her!"

"There, that will do," says Aunt Doxy, with cool scorn in her eye; "a man who undertakes to prove too much *don't prove anything.*"

Now we are all sure to agree with Aunt Doxy, for we don't like to be lumped together and judged by the thousand. But if there is any truth in the charge that we prefer old ways simply because they are old and not because they are good, let us make haste to get free from such an absurdity.

When I read Uncle John's question about the buttons, I could not help saying, "we make the little garments that way because our mothers did, and yet it is not the best way."

Many women fit the little bodies too closely and do not allow enough room for growing. Plain, loose garments well hung from the shoulders, and as warm or as cool as we need for ourselves, is a pretty good rule.

Some time ago I put in a plea for the little girls to be so dressed for out-door work and play as to give them equal chance with the boys for all healthful exercise.

Mrs. M. E. T. would win us to "the golden mean;" and striving for that we cannot go far wrong in dressing our children or ourselves. The last RURAL (April 29th) is so excellent I can hardly avoid giving a rapturous pen-shake toward everybody who helped to make it. "Botanical Excursions" are wonderfully interesting, and the "Old Arm Chair" rolls in with such rejoicing vigor, one must fain believe its woody frame still throbs with fresh, young life.

THE BRIDE. — She quits her home, her parents, her companions, her amusements, everything on which she has hitherto depended for comfort, for affection, for kindness, for pleasure. The parents, by whose advice she had been guided, the sister to whom she had dared impart every embryo thought and feeling, the brother who has played with her, by turns the counsellor and counselled, and the younger children to whom she has hitherto been the mother and the playmate, all are to be forsaken at one fell stroke; every former tie is loosened, the spring of every hope and action is to be changed, and yet she flies with joy into the untrodden path before her. Buoyed up by the confidence of requited love, she bids a fond and grateful adieu to the life that is past, and turns with excited hopes and joyous anticipations of the happiness to come. Then woe to the man who can blight such fair hopes, who can, coward-like, break the illusions that have won her, and destroy the confidance which love had inspired.

Self-Improvement.

There are many young workingmen who are anxious to improve their minds by reading and study out of business hours. But too many grow discouraged and fail in their efforts for self-improvement, although they begin with the best intentions.

A want of thoroughness in whatever is undertaken is, perhaps, one great cause of such failures. A practical writer on that topic gives the following good direction: "Never leave what you undertake to learn until you can reach around it, and clench your hands on the other side." It is not the amount of reading you run over that will ever make you learned; it is the amount you retain. Dr. Abernethy maintained that "there was a point of saturation in his mind," beyond which it was not capable of taking in more. Whatever was pressed upon it afterwards crowded out something else. It is probable that few of us have minds more sponge-like than that of the great doctor.

Every young man should endeavor to perfect himself in the science of the business he has chosen. Without this, he must always content himself in the lower walks of his calling. The cost of a few cigars will buy all the books he requires, and his own diligence may be made to well supply the place of a tutor. Without such diligence, the best teacher in the world could not manufacture him into a scholar. If once going over a point will not master it, he must tackle it again. Better give a week's study to a page than conclude that you cannot comprehend it.

But though it is wise to give your main strength to your own specialty, you should not confine yourself to such studies exclusively. The perfection of all your powers should be your aspiration. Those who can only think or talk on one subject may be efficient in their line; but they are not agreeable members of society in any of its departments. Neither have they made the most of themselves. They become one-sided and narrow in their views, and are reduced to a humiliating dependence on one branch of industry. It costs nothing to carry knowledge; and in times like these, to be able to put his hand to more than one branch of industry often serves a man a good turn.

Do not attempt too much in the way of study to begin with; you will surely lose heart if you do. Be humble and modest in your aspirations, and if you are diligent never fear but that you will hear a voice saying: "Come up higher." Be content to gather the precious gold of learning grain by grain; you will soon be able to see the pile growing, and will learn from it the wonderful power of the littles, which is felt and shown in mental as well as in golden gains.—*Scientific American.*

Influence of Companionship.

It is a common saying that men are known by the company they keep. The sober do not naturally associate with the drunken, the refined with the coarse, the decent with the dissolute. To associate with depraved persons argues a low taste and vicious tendencies, and to frequent their society leads to inevitable degradation and loss of character. Even if it does no immediate harm, it leaves its seeds in the mind and follows us, sure to spring up in future resurrection.

Intercourse with even commonplace, selfish persons may prove most injurious, by inducing a dry, dull, reserved and selfish condition of mind, more or less inimical to true manliness and breadth of character. The mind soon learns to run in small grooves, the heart grows narrow and contracted, and the moral nature becomes weak, irresolute and accommodating, which is fatal to all generous ambition or real excellence.

On the other hand, association with persons wiser, better and more experienced than ourselves is always more or less inspiring and invigorating. They enhance our own knowledge of life. We correct our estimates by theirs, and become partners in their wisdom. We enlarge our field of observation through their eyes, profit by their experience and learn not only from what they have enjoyed, but—which is still more instructive—from what they have suffered. If they are stronger than ourselves, we become participators in their strength. Hence companionship with the wise and energetic never fails to have a most valuable influence on the formation of character, increasing our resources, strengthening our resolves, elevating our aims, and enabling us to exercise greater dexterity and ability in our own affairs, as well as more effective helpfulness of others.

SHE WOULD NOT MARRY A FARMER.—Many young ladies are so "nice" that they disdain to be farmers' wives. They consider it a disgrace to live on a farm. I will relate a certain instance. Some years since a young couple were married in a New England factory village; the gentleman would like to have gone on a farm, but his wife objected; she thought it a disgraceful place; so they went to a city to live. For a few years they were very happy; but at length the husband began to take strong drink, and not only that, but a worse trouble crept into the household, so that their reputation and name were ruined, for business, and they were obliged to close up business and go to a distant city. Now if they had gone on a farm, in all probability they would today be enjoying happiness and prosperity.—*Boston Cultivator.*

What Can a Girl Do?

"What shall I do to help out this year's income?" asks many a girl whose time is not wholly employed in aiding her mother in the housework, but who very likely has never attempted the pleasing work of cutting and fitting her own dresses, and making her hats and sacques. In these days of paper patterns, which are made in every possible fashion and size, it is a very different undertaking from what it would have been for our mothers to fit and make their own dresses; and then there were no sewing machines to stitch up the long seams and make the waists and sleeves so rapidly that the sewing of them is mere play-work, and does away, in a great degree, with the necessity of employing either dressmakers or seamstresses, whose endless stitch, stitch, stitch, always make our bones ache even to behold it.

To be sure, proportionately to the facilities given in their manufacture, dresses have become exceedingly elaborate, and their trimmings most intricate and seemingly endless. But already the reaction has commenced in high places, and we really may live to see a little more simplicity in the new styles, for Dame Rumor declares that the fashions of 1776 are to be prevalent in the summer of 1876.

Now, if this be true, the task of dressmaking will become easier; yet, even now the elaborate trimmings are often made to hide an otherwise irremediable defect in making over a dress, and the tablier or tunic often serves to conceal pieced-down breadths which it would be impossible to have made of service in a plain skirt. Trimming with another shade will also convert an old fashioned dress into one of the newest style.

Home dressmaking is really much more economical in the amount of everything used, for you will take greater pains to save material, etc., than the dressmaker possibly can do, as she has little or no interest in the matter. And if each young girl would endeavor to devise her own costume, her particular style, there would be a much greater variety, and the girls would not look as if they were all cut out by the same pattern, as are a platter of seed cookies. A girl who is not clever with her needle is decidedly helpless whenever she is separated from her own home, and there is not an accomplishment more to be desired than that of skill with the needle; although since the introduction of the sewing machine, it seems to have fallen into disfavor in many communities.

Where are the sisters in a family, there can be no trouble as to fitting each other, for if the seams are not exactly correct, agile fingers can pin them in, and with patience and a pinball the work will soon become a pleasure, and the question "what shall I do?" will be answered satisfactorily to both old and young in the household.—"*Daisy Eyebright*" *in Country Gentleman.*

SATURDAY NIGHT.—How many a kiss has been given, how many a curse, how many a caress, how many a kind word,—how many a promise has been broken, how many a heart has been wrecked,—how many a loved one has been lowered into the narrow chamber, how many a babe has gone from earth to heaven,—how many a crib or cradle stands silent now, which last Saturday night held the rarest of all treasures of the heart? A week is a life. A week is a history. A week marks events of sorrow or gladness of which people never heard. Go home to the family, man of business! Go home, you heart-erring wanderer! Go home to cheer that awaits you, wronged waif of life's breakers! Go home to those you love, man of toil, and give one night to the joys and comforts fast flying by. Leave your book with complex figures, your dirty workshop, your busy store. Rest with those you love; for God only knows what the next Saturday night will bring you. Forget the world of care and the battle of life which have furrowed the week. Draw close around the family hearth. Go home to those you love, and as you bask in the loved presence and meet to return the loved embrace of your heart's pets, strive to be a better man and bless God for giving his weary children so dear a stepping stone in the river to the Eternal as Saturday night.

SHOES AND SERMONS.—A story is told of an old duke of Leeds, we think, in the early part of the reign of George III. One morning he was with his chaplain and his friend, Dr. Monsey, soon after breakfast, in his library, when Mr. Walkden of Pall Mall, his Grace's shoemaker, was introduced with a new pair of shoes, which he was to fit on his Grace. The shoemaker was a great favourite of the Duke. "What have you there, Walkden?" said he to him. "The pair of shoes for your Grace," he replied. "Let me see them." They were handed to him accordingly. The chaplain took no one, examined it with great attention. "What is the price?" asked the chaplain. "Half a guinea, sir," said the shoemaker. "Half a guinea! what, for a pair of shoes?" said the chaplain; "why, I could go to Cranburne alley and buy a better pair of shoes than they ever were or ever will be, for five and sixpence." He then threw the shoe to the other end of the room. Walkden threw the other after it, saying, "As they were fellows, they had better go together," at the same time saying to the chaplain, "Sir, I can go to a stall in Moorfields and buy a better sermon for twopence than the Duke gives you a guinea for." The Duke clapped Walkden on the shoulder, saying, "Well done, Walkden, that's capitally said; make me half-a-dozen pairs of these shoes directly."—*Leisure Hours.*

A Hungarian Statesman.

In these days of profligacy it is good to know there still may be found types of the old time honesty and simplicity. Many interesting anecdotes are told of the dead statesman Deak, illustrating the Spartan-like simplicity of his life. Titles and decorations were offered him in abundance, but he refused them all. Lucrative posts were pressed upon him in vain. He would hold no office but that of representative of the people. A landed estate brought him in a small income. It is said that his expenses were only $1,000 a year. He lived in a little apartment up two flights of stairs. Many were the attempts made by his friends, in collusion with his landlord, to persuade him to change his quarters to the floor below, but all were unsuccessful. The municipality gave his name to the street in which he lodged. That would no doubt have induced him to move had he not known that wherever he went the name would follow him. When summoned to meet the emperor in the palace at Buda to confer upon the new form of government, he went in a one-horse cab, wearing his every day clothes. Probably he did not possess such an article as a dress coat. The courtiers were scandalized that he should invade the sacred presence of majesty in such apparel, but he represented the organized will of the Hungarian nation, and the emperor would have received him gladly if he had worn no coat at all. He used to ride to the House of Representatives in an omnibus that passed his door. A carriage was presented him, but he refused to accept it. Then some of his aristocratic admirers who were unwilling that their great leader should in his feeble health be crowded in a public conveyance, bought one of the omnibuses of the line, and at the hour when he left his lodgings the vehicle regularly approached his door as if it had just come along and had not yet picked up any passengers. As soon as he got in it drove directly to the Parliament House. After a while Deak discovered the cheat and never entered the pretended omnibus afterward. He accepted but one legacy, and that was the three penniless children of his dead friend, the poet Petofy, the author of the Szozat—the Magyar Marseillaise—whose patriotic verses had made him much beloved by the people. As soon as it was known that Deak had undertaken the care of the orphans, a subscription was set on foot and a fund amounting to over $200,000 was raised for them in a few days. They thus became rich, but their benefactor died as he had lived, poor as far as material possessions constitute wealth, but in a true sense the richest man in all Hungary. His wealth was the love of a whole nation, won by his unselfish devotion to the cause of freedom.

Charles Dickens' Advice to His Son.

I exhort you to persevere in a thorough determination to do whatever you have to do as well as you can do it. I was not so old as you are now when I first had to win my food, and to do it out of this determination; and I have never slackened in it since. Never take a mean advantage of any one in any transaction, and never be hard upon people who are in your power. Try to do to others as you would have them to do to you, and do not be discouraged if they fail sometimes. It is much better for you if they should fail in obeying the greatest rule laid down by our Saviour, than that you should. I put a New Testament among your books for the very same reasons, and with the very same hopes that made me write an easy account of it for you when you were a little child: Because it is the best book that ever was or will be known in the world; and because it teaches you the best lessons by which any human creature who tries to be truthful and faithful to duty can possibly be guided. As your brothers have gone away one by one, I have written to each such words as I am now writing to you, and have entreated them to guide themselves by this book, putting aside the interpretations and inventions of man. You will remember that you have never at home been harassed about religious observances, or mere formalities. I have always been anxious not to weary my children with such things before they are old enough to form opinions respecting them. You will therefore understand the better that I now most solemnly impress upon you the truth and beauty of the Christian religion as it came from Christ himself, and the impossibility of your going far wrong if you humbly but heartily respect it. Only one more thing on this head. The more we are in earnest as to feeling about it, the less we are disposed to hold forth about it. Never abandon the wholesome practice of saying your own private prayers night and morning. I have never abandoned it myself and I know the comfort of it. I hope you will always be able to say in after life that you had a kind father. You cannot show your affection to him as well, or make him so happy as by so doing.

"Wanted."

God give us men! a time like this demands
Strong minds, great hearts, true faith and ready hands;
Men whom the lust of office does not kill;
Men whom the spoils of office can not buy;
Men who possess opinions and a will;
Men who have honor; men who will not lie;
Men who can stand before a demagogue,
And damn his treacherous flatteries without winking;
Tall men, sun-crowned, who live above the fog
In public duty and in private thinking;
For, while the rabble, with their thumb-worn creed,
Their large professions and their little deeds,
Mingle in selfish strife, lo! Freedom weeps.
Wrong rules the land, and waiting justice sleeps.
—*Dr. Holland.*

A CASE OF ABSTRACTION.
[From Scribners.]

Young Folks' Column.

Giving up the Dolls.

May was getting so tall that it looked "perfectly silly" for her to be playing with dolls. So, at least, Jess, May's sister, said, and Jess was 15 years old, and ought to have known what was proper and what wasn't.

May was such a little mother, and loved her dolls so much, that I don't believe Jess alone could ever have made her give them up; but even mamma began to hint strongly about patchwork quilts and "usefulness," and when at last she came out with a brilliant offer of a set of gray squirrel furs for next winter if May would give up the doll babies, and "be a woman," May couldn't stand out against so much, and she went up stairs that night with her mind made up.

She took all the dolls she could find handily into the bed with her, and I believe she cried a little as she hugged them up close, and thought it was the last time. The next morning was bright and sunny, and May went around the house gathering up her children. Her mother had suggested to her that she might keep one or two of the best ones and throw away the others; but May didn't intend to show any partiality. She gathered up every pet baby, from Pet Rosa, with her sweet, blue eyes, to the small no-headed darkey, with his cunning little coat and vest. She piled them all together in a paper box, and, putting on her sun-bonnet, went out at the back door when nobody was looking—for the poor little mother felt so miserable that she didn't want any one to ask her where she was going. May went through the lots and crawled under the fences until she came to the sheep pasture. She went behind a large stone, and scooping out a large hole in the sandy earth with her hands and a stick, she put in the box of dolls; then covering it up, she sat down by the little mound and had a good cry, while her dirty fingers rubbed streaks all over her face. She wandered around the pasture awhile, talking to herself, and feeling very miserable. Then she went home, and locking herself up in the spare chamber, waited until all traces of tears were gone from her face before she let herself be seen.

So the dolls were buried, but that wasn't the last of them. I can't tell you exactly how many times in the next two or three weeks she took them up. She didn't play with them; she was too honest for that. But she wanted to see how they looked. She made cunning little bouquets, and put them into the darkey's button-hole, and once or twice she carried fresh changes of clothes for Rosa, but always she would kiss all around, and bury them up carefully again.

But as the summer wore away, May's visits became less frequent. Her mother had got together such a quantity of bits of bright silk, that May could hardly lose a moment from her gay patchwork.

The year rolled over and brought summer around again, and one Saturday afternoon May went down to the big rock, and "just for fun," dug up the dolls once more. They had been soaked through and through by the rains, and were now a mass of dirty, streaked, pitiful looking objects. May did not cry this time—she only sat down and laughed. She was so much older than she was last summer. She had an intimate friend now, and took music lessons, and wrote notes—what did she care for dolls? She felt a sort of pity for the May of last summer, who had buried and cried over these silly things, and for her sake she buried them up out of sight, and then the May of this summer went home and thought no more about the dolls.

Next summer, probably, a good many of this summer's little interests will drop out of her mind, and bigger come in, and so May will grow up to be a woman.—*Youth's Companion.*

New Paper for Young Folks.—We have received the initial number of the *California Herald*, a new paper for the young, published in this city. It is an "amateur paper;" that is, one which the young people make for themselves. We notice the first chapter of a new story by "Cornus Canopus," who wrote our young folks an article recently. The paper is very creditable to its editor, A. Brunne, Jr.

Good Health.

Pulmonary Consumption in Cities.

A tenth of the people of the cities die of consumption. For its prevention, hygienic treatment is the most successful. By drainage the mortality is greatly reduced. An elastic, dry atmosphere is best. Few of the large cities have a mild and equable climate favorable to the respiratory organs, the want of which develops pulmonary complaints. Of the rich, 60 in 1,000 are afflicted with this disease, and 223 to the thousand of the poor. Among the children of the aged and diseased it is more frequently found. When darkness and dampness prevent growth and health, consumption is produced.

The quantity of oxygen is always diminished in cities, even in the streets. Persons predisposed to consumption ought not to be allowed to live in cities. The absence of sunlight is a fruitful cause of the prevalence of the disease. It is not permitted in our houses, and when it does pretend to intrude, our housewives exclude it with heavy curtains. The streets are so narrow and the houses so high that sunlight seldom reaches the sitting-rooms. The school houses are so situated that children can scarcely ever see the sun.

The sun is the source of all light, life and beauty, and is as necessary to give color and health and life to animals as to plants. It corrects musty smells, so prolific of disease. There is no surer way of promoting consumption than by the exclusion of sunlight. Sedentary life and inactivity, impure air and the absence of sunlight in cities produce a fearful mortality from consumption. No exciting cause is so general as in-door occupations.

Excessive dryness, especially in the houses of the rich, is bad for health. Many other influences of city life contribute to its prevalence. Proper food is next in importance to pure air in preventing a development of the disease. To the neglect of supplying to all an abundance of milk and butter is largely attributable the increase and prevalence of the disease. The poor, especially, get but little hydro-carbonaceous food, and with the rich it is not the favorite it ought to be. Close confinement to business, overwork and whatever contributes to impair the vigor of the body tends to develop consumption. The hygienic treatment of all diseases is the great medical fact of the times. —*Professor Frank Donaldson.*

Treatment of Burns and Scalds.

At the Graetz medical congress, Dr. Nitzsche, who is surgeon to several factories in Austria, stated that he had noticed that the workmen who met with burns obtain much relief from the application of varnish. This forms a protective covering in the absence of epidermis, and granulation and cicatrization are favored. Dr. Nitzsche thought he could improve upon this, and tried to keep away Pasteur's germs by adding first carbolic acid, and subsequently salicylic acid, to the varnish. He considers that he thus succeeded in many cases in effecting prompt healing. These burns were probably in the third degree, with complete loss of epidermis. Another kind of burn, where the epidermis is preserved, but much serum is secreted underneath, has fixed the attention of Dr. Marin, of Geneva. This physician grounds his treatment upon Dutrochet's law of exosmose, and thinks that the diminution of the serum effused under the epidermis should be obtained without the destruction of the latter. This is effected by the application of thick fruit jellies, say of quince, raspberries, etc. Compresses of lint should be soaked in the jelly, so as to become considerably thickened. The serum transudes into the compress, and when after a day or two it is removed, the epidermis is found shrivelled up, and the parts beneath protected from inflammation and ulceration. Dr. Marin insists upon the rule that when pieces of clothing are adherent to the burned surface, they should not be removed, for fear of dragging the epidermis with them. The compress should be placed on the clothing material, and the exosmosis will eventually go on just as well. Dr. Marin quotes, in a pamphlet on the subject, several cases well calculated to recommend this kind of treatment, concerning which he is very enthusiastic. It is well known that a long time ago jams and syrups were used in France, *empirically*, in cases of burns. Louis XIV having met with a burn on his hand, his *valet de chambre* plunged it immediately into a jar of jam with much relief.

How we Take Cold.—It is one of the facts best known to science that, when a part of the outer surface of the body has been exposed long to cold, the greatest risk is run in trying suddenly to reinduce warmth. To become thoroughly chilled and then to pass into a very warm atmosphere, such as is found near a fire, results in a dangerous reaction which, a few hours later, may cause pneumonia or bronchitis, or both diseases. The capillaries of the lungs become engorged, and the circulation becomes static, so that there must be a reaction of heat inflammation before recovery can occur. Common colds, says a contemporary, are taken in the same way: the exposed mucous surfaces of the nose and throat are subjected to a chill, then they are subjected to heat; then there follows congestion, reaction of heat, pouring out of fluid matter, and the other local phenomena of catarrh.

Domestic Economy.

Nutritive Value of Corn.

Indian corn is one of the most important and healthful articles of human food that a beneficent Providence has bestowed upon man; and to its high nutritive value is due in a large degree the strength and vigor of the race of men who laid the foundation of this great republic. It was much more largely used 50 or 100 years ago than now, as fine wheat flour, for some not well founded reason, has usurped its place in bread making. In the several forms, however, of hulled corn, popped corn, hominy, samp, corn starch, maizena, etc., vast quantities are consumed by all classes of people.

Meal from Indian corn contains more than four times as much oleaginous matter as wheat flour, more starch, and nearly as much nitrogenous material; consequently in all cold climates it is admirably adapted to sustain the system by furnishing heat-forming compounds. The oil gives warmth, the nitrogenous principle gives muscular strength. The combination of alimentary compounds in Indian corn renders it alone the mixed diet capable of sustaining man under the most extraordinary circumstances. It holds the elementary principles which constitute the basis of organic life. In this particular it is more remarkable than any other vegetable production known to man. There is a large number of dishes of which corn meal forms the basis, which are exceedingly palatable. What, for instance, is more delicious than cold corn pudding cut in slices and fried in sweet butter and lard? Hot corn cakes, when properly and skillfully made, are almost invariably regarded as a luxury, and Boston brown bread is famous everywhere in the country.—*Journal of Chemistry.*

Household Hints.

To whiten flannel made yellow by age, dissolve one and a half pounds of white soap in 50 pounds soft water, and also two-thirds of an ounce spirits of ammonia. Immerse the flannel, stir well around for a short time and wash in pure water. When black or navy blue linens are washed soap should not be used. Take instead two potatoes grated into tepid soft water (after having them washed and peeled), into which a teaspoonful of ammonia has been put. Wash the linens in this and rinse them in cold blue water. They will need no starch, and should be dried and ironed on the wrong side. An infusion of hay will keep the natural color in buff linens, and an infusion of bran will do the same for brown linens and prints.

If brooms are wet in boiling suds once a week they will become very tough, will not cut a carpet, but last much longer and always sweep like a new broom. A handful or so of salt sprinkled on the carpet will carry the dust along with it and make the carpet look bright and clean. A very dusty carpet may be cleaned by setting a pail of cold water out by the door, wet the broom in it, knock it to get off all the drops, sweep a yard or so, then wash the broom as before and sweep again, being careful to shake all the drops off the broom and not sweep far at a time. If done with care it will clean a carpet very nicely; and you will be surprised at the quantity of dirt in the water. The water may need changing once or twice if the carpet is very dirty. Snow sprinkled over a carpet and swept off before it has time to melt and dissolve is also nice for renovating a soiled carpet. Moistened Indian meal is used with good effect by some housekeepers. The broom wears out carpets as much as feet do.

Wall Basket and Protector.—An exchange gives directions for making a wall basket to be hung back of the washstand, intended to serve as well for a receptacle of brushes, soap and sponge, as to protect the wall from the splashings from the wash bowl. First, from brown paper cut a pattern the desired length and width, rounding it at the top and bottom in graceful curves until its shape is pleasing to the eye. Using this pattern as a guide, cut its shape from black or colored oil cloth, line it with cambric, and bind it with bright-colored braid. Of the same material make two pockets large enough for combs and brushes, and fasten them on to each end of the back piece. In the center hang a little rack or bracket shelf to hold the soap dish, sponge, etc. The basket may be ornamented with braid, beads or buttons, according to the taste of the maker. The nail holding the rack should go through the pocket into the wall. Three metallic rings, one at either end and one in the middle, will serve to hang it in place.

Oranges in Jelly.—Take the smallest sized oranges; boil them in water until a straw will easily penetrate them. Clarify half a pound of sugar for each pound of fruit. Cut them in halves or quarters, put them in the syrup, and simmer them until the fruit becomes clear; then take out the oranges and put them in a deep dish. Stir into the syrup an ounce or more of Russian isinglass, and let them boil a short time; if the syrup should not be thick enough add a little more isinglass. As soon as a perfect jelly is formed, strain it over the oranges while hot.

Boiled Wheat.—Take good plump wheat; pick it carefully, and wash clean; soak over night in soft water, and boil in same water till softened through, which will require several hours. Rye or barley may be cooked in the same way.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week.*	1 *month.*	3 *months.*	1 *year*
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞ No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, May 20, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Taber's Improved Hay Fork; How to Have Warm Water; Oregon Dairy Figures; A Sheep Shearing Festival, 321. The Week; Gossip About Wheat; Guard Against Fire; Grasshopper Traps; That Indian Wheat, 328. The Centennial; Cassidy's Drying Apparatus; Our Centennial Fourth, 329. Patents and Inventions, 332.

ILLUSTRATIONS.—Taber's Improved Hay Fork, 321. Cassidy's Drying Apparatus, 329.

CORRESPONDENCE.—Botanical Excursions; Saving Corn From Frost; Roseville; Underdrainage; The Soil as an Absorbent, 322-323.

THE DAIRY.—How Eastern Prize Butter is Made, 323.

SHEEP AND WOOL.—Points About Scab; United States Sheep Register, 323.

THE GARDEN.—A Market Garden Near Antioch, 323.

USEFUL INFORMATION.—Spirits of Ammonia; To Prepare Skins for Fur, 323.

PATRONS OF HUSBANDRY.—The Worthy Master in Napa County; From the Granges; Farm Products by Weight; In Memoriam, 334-5.

HOME CIRCLE.—Our Homestead (Poetry); Farm House Chat; The Bride; Self-Improvement; Influence of Companionship; She Would Not Marry a Farmer; What Can a Girl Do? Saturday Night; Shoes and Sermons; A Hungarian Statesman; Charles Dickens' Advice to His Son; Wanted, 326-327.

YOUNG FOLKS' COLUMN.—Giving up the Dolls; New Paper for Young Folks, 327.

GOOD HEALTH.—Pulmonary Consumption in Cities; Treatment of Burns and Scalds; How we Take Cold, 327.

DOMESTIC ECONOMY.—Nutritive Value of Corn; Household Hints; Well Basket and Protector; Oranges in Jelly; Boiled Wheat, 327.

QUERIES AND REPLIES.—What Kills the Ducks; Feather Eaters, 329.

GENERAL NEWS—General News Items and Miscellaneous Paragraphs, on 332 and other pages.

NEW ADVERTISEMENTS.

Harvesting Machinery, Linforth, Kellogg & Co., S. F.; Straw Burning Attachment, John Caine, S. F.; Richard's Improved Header, Matteson & Williamson, Stockton, Cal.; Merino Sheep, Garnier Bros., Los Angeles, Cal.; Nursery, Strong & Williamson, S. F.; Centennial, Phelps Bros. & Co., Chicago; Cavendish Dwarf Banana, J. M. Asher, San Diego, Cal.; Self-Regulating Feeder, E. J. Marsters, Stockton, Cal.; Machine for Paring Apples, D. H. Whittemore, Worcester, Mass; Jackson's Elevator, Byron Jackson, Woodland, Yolo Co., Cal.; Powell's Electric Elevator, Thomas Powell, Stockton, Cal.; Fine Dairy Farm, Berry & Capp, S. F.

The Week.

The clatter of the mower comes from a dozen counties. In all there are being unusually large breadths of hay spread out. "Immense" is the word which is applied to the hay crop everywhere. The reapers are beginning in the volunteer grain in several sections and the weight of the harvesting hurry is now only three weeks distant. Barley is falling in many fields. The wheat crop has advanced finely during the week. Advices indicate that the prevalence of favorable, rust-proof weather nearly everywhere; the only exceptions which come to our hearing thus far are a few rusty patches in Santa Clara.

The city and the bay already show the foreshadowings of the life which will spring up with the moving of the crops. The ships at anchor, in waiting for the last deeds of the sun and harvester, are constantly increasing in number, and there is a fleet now due. Each comer brings work for the city men, from banker to deckhand, and a revival of business from the dullness which marks the early months will soon quicken all hands and fill the mouths of many who have been waiting for the abundant labor of the busy season. The enlivening influence of success in the State's grandest industry will secure general prosperity and content.

Gossip About Wheat.

Now that the machinery is grinding its knives and oiling its bearings in preparation for the quick coming harvest, let us devote a little time to a general and rambling gossip about the crop and its chances. It is pretty sure that we are going to have a crop this year, and the air is filled with figures concerning its possible and probable amount. We see the probable yield of wheat placed by enthusiastic statisticians as as high as thirty million centals, which with the customary amount deducted for home use would leave twenty-three million centals for export. From this magnificent amount the estimates descend by easy stages to a figure which places the whole crop at nineteen million centals, with twelve million centals for export. How great either of these amounts really is can be appreciated slightly by comparison with the actual amount exported of last year's crop, which, during the year ending July 1, 1876, will not exceed six and one-sixth million centals. Of course this last year has been small in wheat and the coming harvest is sure to advance very far beyond it.

As this is to be our position in the coming year's trade, it would be encouraging to perceive some clear avenue through which the large quantities can move to consumption. There is nothing in the outlook now which gives absolute surety that there will be hungry buyers for all our wheat at anything more than medium prices. But there are some indications which are at least promising. The season for the growing crops in English fields has been most unfavorable. Our English exchanges contain notes from country correspondents which speak of more unfavorable weather than has been known for a quarter of a century. All agree in pronouncing the season exceedingly late, although the effect of the conditions upon the harvest cannot now be determined. Certainly the longer the harvest is delayed the greater will be the intermediate consumption and time will be given for inroads into the stocks on hand, which are reported large.

A ray of light falls upon the outlook from the brisk demand which has ruled during the last week in the markets of Northern Europe. This demand has accomplished a large movement from New York direct, raising the price there five cents per bushel, and has had an indirect effect upon the views of English purchasers, as is seen in the advance of the Liverpool cable rate which was scored yesterday. This sharp spring trade is altogether beneficent in its promise. There is nothing so favorable for a coming crop as empty storehouses. This benefit is to be enjoyed right at our own doors, for our State is unusually clean of accumulations of grain. The recent shipments have been liberal, and the large export of flour to China finds our millstones running almost clear of lower grade grist. All these things are favorable.

What the wheat regions of the prairie States will do this year does not yet appear. There have been attempts by the Chicago papers to secure a fine showing, but the results are not very satisfactory. We think it may be safely believed that the reports of large amounts in the hands of prairie farmers have been greatly exaggerated. To controvert the statement of large stocks back in the country, the Chicago *Tribune* maintains that there is no more than will be needed for home consumption, and that the recent activity is a legitimate trade. The Minneapolis *Tribune* states that two-thirds of the Minnesota crop has been placed in the hands of dealers, and that the poor quality of much remaining will prevent its competition with first qualities. Another paper on the Atlantic seaboard vouches the comforting assurance that there will be no more brought forward at the East this year than requirement will call for. Of course these are but straws of gossip, but they may indicate the direction of the wind. They may be taken at least as negative proof of what they affirm, for such statements could not be made in the face of facts which were strongly otherwise than they affirm.

As a possible surety for a good demand for wheat, the complicated condition of the "Eastern question" is advanced. The latest news by telegraph favors the idea that there will be trouble enough in Western Asia during the coming year.

So far as we can learn there is little definite being done in contracts for the new crop in this State. We hear indirectly of sales for June and July delivery at about $1 60 per cental, and there is a rumor of an engagement for 100 tons, new, at Turlock by July 15th, at $1.30 per cental. We cannot verify these reports nor do we know whence they came. There seems to be a general looking toward $1.50 per cental as the figure which will prevail. But this is all gossip. We have collated it that our readers may known what is in the wind.

CALIFORNIA DENTAL ASSOCIATION.—Dr. H. J. Plomteaux, President of the California State dental association, informs us that the seventh annual meeting of the society will be held in San Francisco, June 13th and three days following. A cordial invitation is extended to the profession. We trust the society will teach the people how to set teeth more generally into home productions, and smooth off the edge which demands imported articles.

Guard Against Fire.

It will be small gain to our farmers if their splendid grain fields escape the several injuries which may come upon growing crops, if the crop falls at last before sweeping fires. What safeguard are our farmers employing to ensure safety from this enemy of our harvest time? We have called attention to this danger before, and now we find in the Stockton *Independent* some forcible and timely remarks upon this subject which may prove valuable and suggestive: "One of the most important precautions that the farmer requires to take for his own welfare and that of all his neighbors, is that against fire in his grain fields. The grain when ripened and before cutting becomes so dry in these hot and parched valleys that it is like tinder, ready to catch at the slightest spark, and spread devastation with irresistible rapidity over miles of country. Where the whole farming interests of the country is devoted to grain growing, and where there are unbroken lines of contiguous grain fields for miles, it becomes a particularly imperative duty that each farmer should take every possible precaution, even at a sacrifice, to keep the fire fiend from ravaging and destroying the wealth of the State. The most effective way to provide against the general spread of the flames is to plow up wide strips of land surrounding each field, and along the highways where strolling tramps and stray cigar stumps are liable to start the dreaded fire, and particularly along and adjacent to the railroads where the sparks are, despite every precaution, constantly flying. With the fields thus isolated from the dangerous proximity to the sources of fire, and from each other, the jeopardy is much lessened, if not entirely prevented. This is the proper time to prepare these strips, which should be at least 75 to 100 feet wide, as the grain is now just in the right condition for making hay, and by so utilizing it the farmer could experience no loss, as they all require hay, and the land ploughed up after cutting the grain would increase its productiveness for the same kind of a crop the next year by the summer fallowing it would thus obtain. It would be an excellent principle to adopt for those living adjacent to railroads and highways, to devote a wide strip on their outer limits to the production exclusively of hay, each year plowing it up before the dry season. Precautions of this character, systematically carried out, would entirely prevent the wide spread and devastating fires that have in times past made such frightful havoc. An ounce of prevention is worth a pound of cure."

Grasshopper Traps.

The inventive American genius is evidently following the flying feet of the grasshopper. The latest method operates by inducing him to leap into his own destruction. We see in the Boulder (Colorado) *News*, descriptions of novel apparatus which is being widely introduced in that afflicted State. Possibly the hints may be suggestive to our readers. The most approved method is the "kerosene pan." The pans are of galvanized sheet iron; take a sheet about eight feet long, for the front bend up the edge two inches, and for the back four inches, and for the ends, bend up so as to taper from two to four inches. This forms a basin about seven and a half feet long and two feet wide. Cover the bottom of this with coal oil. Attach cords to the ends and drag it sideways over the grain fields. It is light, and a man or boy can move it along as fast as required. As it advances the 'hoppers jump up and fall back into the pan. If any drop into the pan and hop out it is their last hop. Practice enables one to move the pan just right to take the rising swarm as they come down.

Others use a piece of oil cloth, say 10 feet long, smeared with coal tar. As this is dragged over the field, tarred side up, the hoppers that rise before it fall back on to it and are stuck. It is a long road that has no turn. Heretofore they have stuck the farmer, and now the farmer sticks them. Captain Ira Austin, of this town, is making a very successful fight on his grounds by the last mentioned method.

TEXAS AS A WHEAT STATE.—Texas is rapidly taking a prominent place among the great wheat States of the Union. The Denison *News* says that the area in wheat this year will be double that planted in 1875, and estimates the yield at 12,000,000 bushels. In 1874 there was not a sufficient quantity raised to supply the local consumption; in the following year about 8,000,000 bushels were raised, leaving 6,000,000 for export, and now 12,000,000 is placed as the yield for 1876. By the resident farmers, the soil and climate are considered as propitious to the cultivation as that of any section of this country, including California. The average yield for the State is 25 bushels to the acre, and in some districts the yield runs as high as 40 bushels.

ON FILE.—"Botanical Excursions," J. G. L.; "Agricultural Education in Germany," J. W. A. W.; "Draining," J. S.; "Dress Reform," N. E.

CITY AGENT.—Mr. E. B. Hopkinson is our authorized agent for receiving subscriptions in San Francisco.

That Indian Wheat.

The Calcutta *Sun* is disposed to take exception to our apprehension of rivalry from India in the wheat supply of Great Britain. It claims that "Indian wheat is of inferior quality, and that the climate of India is not suited to the production of wheat." We are frank to say that all the information which we have at present is directly opposed to the claim of the *Sun*. For instance, we quote from an article in the S. F. *Call* of last week: "Some remarks in the *Mark Lane Express* recently on India as a source of wheat supply for Great Britain, and the possibility of that country becoming a competitor with the United States in the British market, attracted considerable attention. To-day a sample of Calcutta wheat was exhibited on 'Change. It is a large, white, plump grain, and is pronounced by the millers to be a first-class milling wheat. It will, from its superior quality, come more into competition with California wheat than any other grown in the United States. It is already beginning to figure in the Liverpool market quite extensively. The sample on 'Change to-day compares favorably with the best California and Oregon grain." This is evidence of the quality of Indian wheat from experts in our own markets who are familiar with the splendid wheat which this State produces.

We find further reason to apprehend rivalry from India from testimony abroad. H. Kains Jackson, well known as a grain authority in London, writes: "The new feature in the wheat trade of East India supplying the United Kingdom is becoming more pronounced, and the experience of the past season seems to have satisfied millers to go on buying Indian produce. The development of the canal traffic assures one thing—plentiful and cheap tonnage to bring grain and seed home in ships freighted out with British exports. In the same way as shippers gladly bring home Australian wheat, there is every chance of Indian produce being stimulated in its supply, if for no other reason than furnishing back freights to the fleet of ships employed in our Indian and Australian trade. The present quotations for Indian soft red wheat, 40s, and 40s 6d to 42s for white. April-May shipments are low enough to attract attention, and as guides to point out what the summer level of value will be."

The New York *Bulletin*, of last week, prints a letter from a London correspondent from which we quote a paragraph bearing upon this subject: "Another feature in this market is the large quantity of Calcutta wheat that is taken by millers in preference to American. The wheat is made thoroughly wet, so that all the earth in it may be brought to a pulp, and when it dries it is reduced to dust and blown out, leaving the wheat perfectly clean. The wheat itself has both color and strength."

As we are following this subject with the idea of giving our readers a full understanding of the matter, we quote below from the last received issue of the London *Agricultural Gazette*, a letter on Indian wheat growing, written from Punjab, March 21st:

Wheat is a fair crop, about an average, I should say. This is the staple crop of this part of the country, and it is grown year after year, and generation after generation on the same land, that is to say, as long as the land will yield 3 or 4 bush. per acre. It is a ruinous system, but it is the system pursued here, and manure is never applied, excepting to small fields of sugar cane, tobacco, opium, or vegetables near the village walls. The return per acre of wheat is, according to a writer in the *Indian Agriculturist*, from 9 to 15 maunds, 9 being an ordinary crop, 12 an average one, and 15 a good one. A maund is equal to about 80 lb., say 1¼ bush., which will yield 12, 15, and 20 bush. respectively as ordinary, average, and good yields. Even this is, I think, rather high, and I should say that an average wheat crop seldom exceeds 12 or 13 bush. to the acre. This state of things, however, can be easily remedied by good management and the use of the English plow.

A field here cultivated on the native system, with native implements, on good soil, gave 17 bush. grain and 14 cwt. straw and chaff per acre. Another field, plowed only once with the English plow, and very poor soil, gave 19 bush. grain and 17 cwt. straw, while a third field, manured with bones crushed with hammers, gave 28¾ bush. grain and 30 cwt. straw; and a fourth, manured with a little manure, village and lawn sweepings, gave 36 bush. grain and 48 cwt. straw and chaff. Both the latter were plowed once with the English plow, and afterwards worked with the native plow, which makes a very good cultivator for working the land after it has been well plowed with the English plow.

The above facts afford something of an idea of Indian practice and the result which can be gained by improved cultivation.

We have spared no diligence to get at the facts in question. We should much prefer that our examination should lead to no fear of India, but if the possible contingency should induce our agriculturists, so far as is practicable, to place their industry upon a surer and safer basis by introducing a wise diversity of crops, the alarm will be salutary. Of course, all deductions which are drawn from our remarks are matters for future action and not present foreboding. We present the facts as bearing upon our general agricultural policy and not as in any way affecting present market values. It will be a year or two before India can harm our market, if at all.

[Editorial Correspondence.]

The Centennial.

PHILADELPHIA, May 9th, 1876.—Your correspondent arrived here yesterday morning and, thongh much fatigned and covered with the dust of 3,000 miles of travel, made a hasty toilet and proceeded at once to headquarters on Walnnt street, to secure the permit necessary to enter the grounds—a permit to enter the bnildings being peremptorily refused to all except those actnally engaged in preparing their exhibite. Having reached the grounds, however, and passed the outer eentinel, your correspondent resorted to one of the many ways so well known to newspaper reportere, and soon found himself inside of the great exhibition building, and free to move as inclination dictated.

Busile of Preparation.

Our first thought on looking upon tbe almost endless confusion of full and empty boxes, the huge piles of dirt and refuse and the imperfect display of exhibits generally, was that it would be utterly imposeible to bring order out of such chaos in the brief time of a day and a half that remained for such preparation. But on a seccond thought, after viewing the great army of laborers and witneesing the quiet, earnest determination that everywhere prevailed, we concluded that nothing wae impossible to Americans in tbe cradle of tbeir liberty, and especially on its first great Centennial anniversary. To-morrow will determine, and the result will reach yon by telegraph long before this letter can arrive in San Francisco.

On leaving the main exhibition building, and taking a hasty survey of the vast area--236 acree of ground—which has been enclosed and npon which all the various buildings and *annexes* have been erected, we were etill more confounded at the immense amount of labor yet to be done before the exhibition is complete. Hundreds of laborere, with picks, shovels, garden tools, carts, etc., were everywhere bney, finishing off tbe avenues, trimming the turf, planting trees and ehrubs; carpenters innumerable were at work upon the varioue annexee, arranging tbe immense platforms for the morrow's opening ceremonies, etc.; a locomotive with a long train of freight care was standing by the side of the main building, diecharging full and receiving empty boxes; another was juet leaving the machinery building, having unloaded during the morning. I was told, however, that these were the last trains that wcnld be allowed to enter tbe enclosure, and was furthermore aesured tbat all the confusion I saw around would be transferred into admirable order by to-morrow's morn.

A Terminal Agency

Is now actively engaged in the general superintendence of these final preparations, compelling exhibitoie to hurry up their work, remove their rubbieh and get ready for the grand opening to-morrow. Some idea may be formed of what has been done from the fact that about 3,000 car loads of goods have been received—100 a day for the laet three montbs. Thie is all in addition to the local exhibitors, who are numerous, and who have taken their goods to the bnildinge in drays and express wagons. No less than 847 wagon loads were so received in one day—Saturday last—and this morning it is stated tbat fully ae many loads entered the grounds yesterday. A compariecn of these means of transport and the foregoing data will enable a San Franciscan to institute some comparison between what is promised by a world's exhibition in Philadelphia and a Pacific coast exhibition in the Golden City. This morning all the gates were closed to cars and wagons, and only small packages and lots will hereafter be received, under special permits.

The Centennial Commiseion met at the jndges' pavilion, on the grounds, yesterday afternoon, to attend to eome of its final preparatory duties. At this meeting Judge Creigh, of San Francisco, and the Commieeioner for California, was called to the chair. The Committee met again at 10 o'clock this morning, for final action.

Preparations for the Opening.

All Philadelphia eeems to be preparing for the grand event of to-morrow. The mayor is ont with a proclamation this morning requesting the closing of places of business on the occasion, and a general illumination in the evening. It is said tbat the decorations and show of bunting, both public and private, will be on a grand scale. The Centennial bell will be rnng for half an hour at sunrise, noon and sunset. The church bells will also be rung at the same times.

A grand platform is in progress of erection against the wall of memorial building, and a corresponding one on the opposite side of the space, against the wall of the main exhibition building. Settees are being put up efficient for the accommodation of at least 5,000 persons —the most or all of whom are especially invited to the platform. A wise determination seems to have been arrived at to make the opening ceremonies simple and brief. Only "words few and fitting" will be spoken. But readers of the PRESS will have been already fully informed of these opening exercises by telegraphic report before my writing can reach them by mail.

The Buildings, Grounds, Etc.

Of course, during the limited time allowed me for examination yeeterday, I could learn bnt little of the progrees which has been made in pntting up and fitting np the various annexes of the different States and nations. I shall examine all and report upon them at my earliest leisure. To-day has been devoted to a little rest and in penning this hnrried and imperfect letter.

The Grange Encampment.

Many throughout California, both Patrons and othe:s, would like to be informed in regard to the Grange encampment. I went ont there yesterday. It is located at E'm station, about five miles beyond the exhibition grounds. The location is a most excellent one, healthy and convenient. The main building is now finished —500 feet long by 40 wide, and two stories high. It has ells running off from the rear, at right angles. These ells are six or eigbt in number, with a wide hall through the center of each, and lodging rooms ranged on either side of the hall. The rooms will be neatly but plainly furnished with *new* furniture throughont—all white or of the natural color of the wood—so that after use it can be painted and sold, unless broken, for new furniture. This ie a neceseary piece of economy. The rooms vary in size, and a few large and choice onee, we preeume, will be let to families and others at pricee somowhat in advance of the average.

A large kitchen has been erected in the rear of the dormitories, which is fitted up with the most approved ranges. A dining room has also been erected 320 foet long by 48 wide. The ordinary rooms will be let, with one bed, a comfortable, clean and substantial one, for one dollar per night—two can occupy a room if they desire for the dollar. Meals will be paid for as taken, at 50 cents each. Thns the cost of living will be reduced to a minimum, and no one need stay away on account of the increased cost of living in the city. Tbe conveniences of getting to and from the exhibition are altogether in favor of the encampment over the city, with the exception of a few hotels which have been erected for the occasion directly in the vicinity of the exhibition gronnde. Riding thither on the street cars, some three miles or mote, will be almost impossible from the throngs of people who will deeire to go—these cara are even now crowded almost to suffocation. What will it be a month hence? The railroad will provide all tbe care necessary from the encampment, at which they have built a side track, eo that there need be no hurrying or waiting for the cars on the main road. The fare will be only 15 cente for the round trip in and out, which will occnpy but 10 minutes to or from, while the etreet cars charge 13 cents for the round trip and require from 30 to 40 minutes of time eacb way. I would advise all wbo desire comfort without being crowded, cheapness without discomfort, and who are not particular about style, to etop at tbe encampment. Accommodations will not be confined exclneively to Patrons, but all reepectable people may find a home there during their stay in the city to the extent of the accommodations. Tbere are now 1,200 rooms, aud more will be added if there is sufficient demand for them. There is a good laundry on the grounds equal to all emergencies, and a epecial hoepital building for the accommodation of any who may be taken sick, situated quite apart from tbe noise and etir of the principal buildings. A skillful resident physician has been engaged, who will be in constant attendance with medicines, etc. Good, pure rnuning water is pumped np into a reservoir, from whence it ie conveyed to the buildings for use. In fact, every reaeonable arrangement has been made at this locality for tbe health, comfort and convenience of visitore. In addition to all mentioned above, ehould the occasion require, arrangements have been made to erect a large public hall, 144x80 feet in dimensions, which may be used for public pnrpoees by the community. Passengere arriving in ordinary trains can have their baggage checked at Chicago, or places nearer, for Elm station. Through passengers by the Pullman cars will arrive at the depot in Philadelphia at three o'clock in the morning, can remain in the cars nntil eigbt A. M., when, for 15 cents, they will be taken back to Elm station, if they desire to go there. Yonr correspondent changes his quarters from the city to-night, and will be the first person booked at the Grange encampment. He will probably find plenty of company there to-morrow.

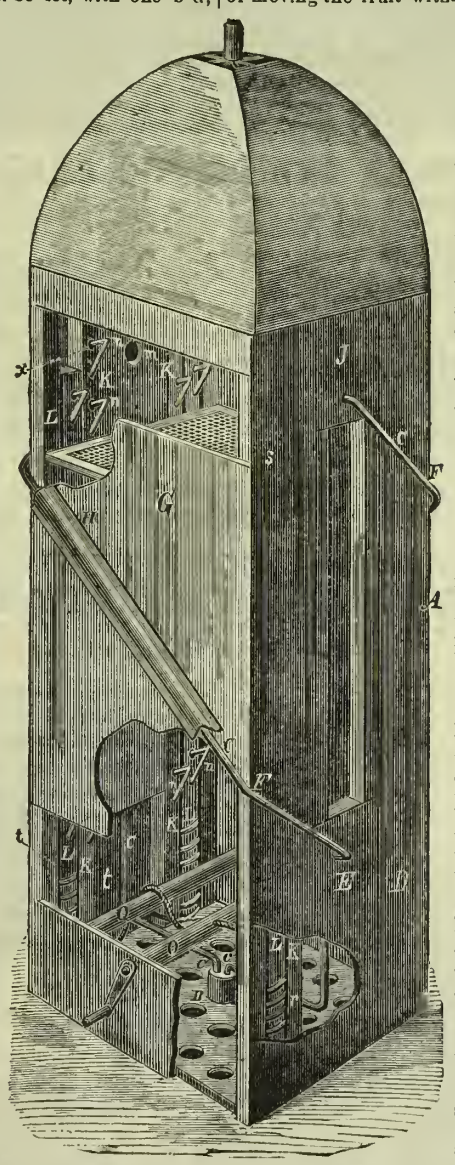
W. B. E.

Cassidy's Drying Apparatus.

The California fruit crop for tbe year has generally trinmphed over the danger of frosts and bids fair to be remarkable both for qnantity and qnality. As abnndance is assnred, the qnestion of drying apparatns to give a marketable form to the surplns becomes more and more important. The subject of drying enterprises is engaging attention in many of the frnit counties. We present on this page an ilustration of a drying apparatus, devised by John W. Cassidy, of Petaluma, Cal., for which he has recently received letters patent throngh Dewey & Co.'e agency.

The invention consists, first, in a novel method of utilizing the heat whicb passee through the flues from the furnace, and by leading these flues arouud the chamber within suitable pipee or cases, and making openings from theee cases into the chamber, the inventor is enabled to admit heated air from any or all sides, and at different hights between the layers of fruit, while beat ie aleo admitted from the bottom of the chamber or not, as may be desired.

The invention also consists in a novel meaus of moving the fruit within the chamber, from the time it is admitted until it is again removed.



CASSIDY'S DRYING APPARATUS.

In the illnstration, *A* is the chamber of a drier, and it is made of considerable hight, so tbat tbe fruit can be admitted from below and moved upward to the place of removal from the chamber. The furnace or heater ie placed below the chamber, and the heated air is admitted through openings made in the bottom of the chamber, as shown at *B*, if desired, but the principal part of the heat, the smoke and gaeee of combustion are conveyed away from the furnace by means of flues, *C*, which necessarily carry off consid erable heat. This heat is ordinarily lost, but in this apparatns it is used at points where it will be of most value, by in troducing it at various points around the chamber, and horizontally between the trays. In order to do this the fluee, *C*, are carried over the bottom plate of the chamber from the center to opposite eides, *D*, where they paes upward a short distance within inclosing-cases as ehown at *E*, and these oases, opening toward the interior of the chamber, will direct the heat of the flues into it up to the point where they turn, and are carr ed diagonally across tbe sides, *E*, to the corners, as shown at *F*. From the corner the flues are again carried diagonally across the two remaining fronts, *G*, and in opposite directione. The flues are also inclosed in cases, *H*, on these two eides, and slots are cut from the cases, eo as to open into tbe cbamber and admit another portion of the heated air between the layers of fruit at different hights. After croesing the faces, *G*, the fluee are again bent so ae to cross the eidee, *D*, diagonally until they reach tbe center, whon they are carried into the vertical cases, *J*, which extend to the top of the drier. Openings, *m*, are made from the oases, *J*, and thus another portion of hoat is admitted to the chamber near the top, to finieh the operation. From this point the flues may be carried up along the dome to a central discharge opening or chimney.

In order to elevate and support the trays of frnit after they are introduced, the inventor hae employed a combination of movable and stationary standards. Four stationary standards, *K K*, are set into the sides of the chamber, and extend vertically from top to bottom near the corners. The other four, *L L*, can be moved up and down in slots, and stand by the side of the standards, *K*. Eacb set of standards is provided with spring-catcbes or supports, which are formed as shown at *n n*, so that a tray moving upward will depress them into the posts, bnt thoy will apring ont after it passes. Any further information which may be desired concerning thia apparatns may be had by addressing T. F. Bachelder, 622 Clay street, S. F., or from the inventor at Petaluma.

THE British fleet in the Mediterranean has been ordered to rendezvous immediately at Smyrna, in view of possible difficulties.

QUERIES AND REPLIES.

What Kills the Ducks?

EDITORS PRESS:—A party in Fresno county writes that his young ducks and goslings have been killed at different times during night by some animal unknown. Its footprints appear like a cat's, consisting of four or five round circles and one in the middle of the foot; the animal kills the ducks and sucks the blood, without eating the body. Have you heard of any case of a similar kind, and if so, what would be the remedy? A person stated that it was the weasel, and a certain herb could be planted which would drive them off, but he did not know its name.—F. T. EISEN, 12 Stevenson st., S. F.

Will eome reader furnish ns with the desired information?

Feather Eaters.

EDITORS PRESS:—I find that many of my hens have commenced to pick the feathers from their legs and breast, until these parts are entirely bare. Will you please state in your next issue cause and remedy for the trouble and oblige—A READER OF THE PRESS.

Full disonseion of thie trouble by Mr. Eyre will be found in our Poultry Department in the RURAL PRESS of April 15th.

Our Centennial Fourth.

If the present intentions of our city men are carried ont, there will be a varied entertainment for thoae of our country friends who desire to pass the Fourth of July in San Franciaco this year. General James Coey, the president of the day, hae issued his proclamation and programme for the celebration of the coming Centennial Fourth of July, which contemplates a three-day celobration on a grand scale. On Saturday and Sunday, the first and second, tbe varions pastors will be requested to preach in tbe different chnrches and synagogues appropriate sermons. On Monday, the third, the Second brigade will engage in a sham battle and a barbecue at the Presidio. A prominent target will be selected in the bay, and shot and shell from the forte will be tbrown at the object. It is also anticipated that a man-of-war will participate in the practice. An exhibitiou will also be given of mortar and rocket practice, such as is never seen except in time of war. At night the city will be illuminated, and a torchlight procession will be led by the Exempt fire association.

On Tuesday, the Fourth, the grand parade of civic, military and trade societies will take place, an oration and literary exercises at the Mechanics' pavilion in the afternoon, and in the evening a grand masqnerade ball will be given.

On Wednesday, the fifth, a monster concert, at Mechanics' pavilion, by the Mannerchor, Handel and Haydn society, the Harmonic, Eintracht, the Amphion society, military bands and pnblic school children. The evening will close the celebration with fireworks at eome accessible location.

HARVESTING MACHINERY.—The establishment of Byron Jackson is turning out more of this kind of work than ever before. His new improved traction engine marched through onr streets the other day hauling a long train of wagons behind it, and seemed to be as easy to steer as a prairie ecooner. A specialty of Mr. Jackson for this season is the new straw attachment to steam threshers, said to be a complete success. Byron is practical himself withal, and knows when a thing is just right, and further, if it is not, how to make it so. A visit to his manufactory would repay any one interested. —*Woodland (Yolo) Democrat.*

RYE FOR THE DRY PLAINS.—Mr. Benton, Poetmaster of Oakland, informs us that he recently saw on John Mitchel's ranch, at Tnrlock, in the San Joaquin valley, a field of rye four feet in hight and doing finely, alongside of a field of wheat which was proving a failnre on account of the dryness of the soil. It ie also etated that farmers are mixing rye with barley for feed, and find it better than pure barley for stock.

MR. A. C. KNOX.—We are pleased to say that this gentleman, who hae been connected with our office more than ten years, is now on a corresponding and business tour to El Dorado county, with the intention of journeying northward. He has our entire confidence.

THE International has held its good reputation ae a medium hotel (whose patrons get tbe worth of their money) longer than any other in San Francisco. Thooard of H. C. Patridge, ite present landlord, will be found in oach issue of our paper.

FOUR 50 vara lots on the top of Telegraph hill have been bought by a numbor of gentlemen and presented to the city of San Francisco for a public sqnare, to be known ae "Pioneer park."

THE officers at the Treasury at Washington are now satisfied that it will take fully a month to make silver resumption a practical success, and even longer if silver is not paid out to the amonnt of $300,000,000.

THE steamship *City of Panama*, in making her landing on Sunday night, run into the English steamship *Zealandia* and snnk her alongside the Pacific Mail company's wharf.

THERE are now 45 boys on the training ship *Portsmouth*, in this harbor.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and descrtption address as above with stamp.

Live Stock Notices.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

Thorough Spanish Merinos.

Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS, Santa Clara, Cal.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, one fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

Buckeye Mower and Reaper.

The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merits. They will do better work and will outlast two of almost every other make of machine.

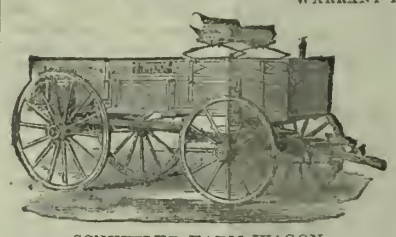
☞ **Farmers, BUY A BUCKEYE in preference to all others.**

With Adjustable Reels. IRON WHEELS.

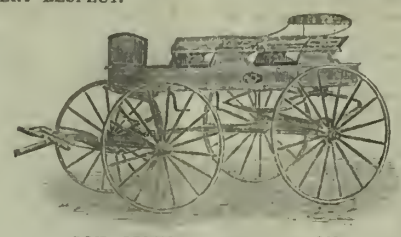
SHORT FRAMES. Springs to raise Cutter-bar.

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.



SCHUTTLER FARM WAGON.



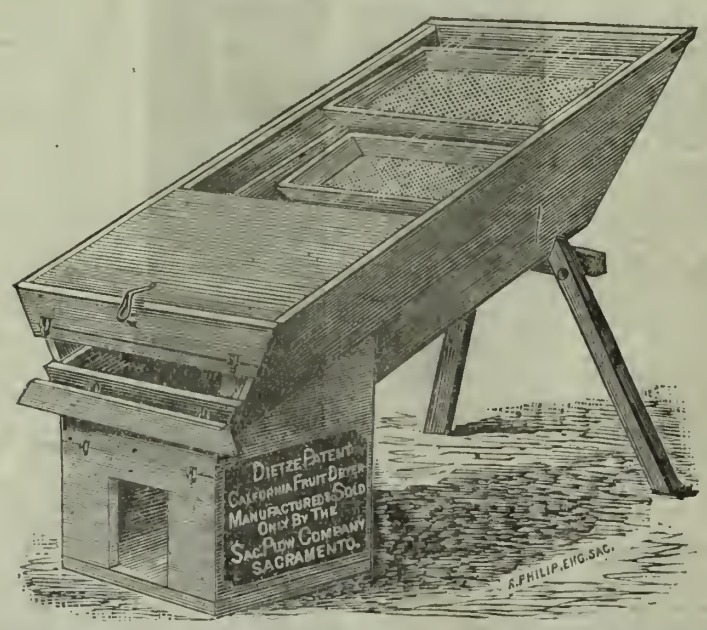
SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

MARCUS C. HAWLEY & CO.,
San Francisco and Sacramento, Sole Agents for the Pacific Coast.

CALIFORNIA FRUIT DRYER.

DIETZ PATENT.



Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple in construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,
Sacramento City, Cal.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth, Capacity, Etc.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wide	12 gal'ns.	6 in.
1	6 ft 10 in. l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 8 in. l'ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns.	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	55 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	65 gal'ns.	9¾ in.

*Four pans in set.

NUTTING & WILLARD,
SACRAMENTO, CAL.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR.....PRESIDENT.
I. G. GARDNER.....VICE-PRESIDENT.
G. P. KELLOGG.....TREASURER.
A. W. THOMPSON.....ATTORNEY
FERD. K. RULE.....SECRETARY

TRUSTEES:

J. D. BLANCHAR.....S. F.	I. C. STEELE.....San Mateo
G. P. KELLOGG.....Salinas	G. W. COLBY.....Butte Co
I. G. GARDNER.....S. F.	A. WOLF.....Stockton
CHAS. LAIRD.....Salinas	C. J. CRESSEY.....Oakland
URIAH WOOD..San Benito	J. C. MERRYFIELD..Dixon
A. B. NALLY.....Santa Rosa	E. W. STEELE, S. L. Obispo
A. W. THOMPSON.....S. F.	S. ABBOTT.....Monterey
A. D. LOGAN.....Colusa	DR. T. FLINT.....Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

LEVI STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

FLORENCE SEWING MACHINES.

2386 Florence Machines

Were sold on the Pacific Coast in 1875, a larger number than was ever sold here of any other kind in a single year. IF THERE IS A FLORENCE MACHINE WITHIN ONE THOUSAND MILES OF SAN FRANCISCO NOT WORKING WELL AND NOT GIVING ENTIRE SATISFACTION, I WILL, IF INFORMED OF IT, FIX IT WITHOUT ANY EXPENSE TO THE OWNER, AND WILL PAY FREIGHT BOTH WAYS. Highest premium awarded to the Florence at Mechanics' Institute Fair, San Francisco, 1875, and at State Fair, Oregon, 1875, for "Best Sewing Machine for Family Use."

SAM'L HILL, Agent,
19 New Montgomery Street, S. F.
☞Grand Hotel Building.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

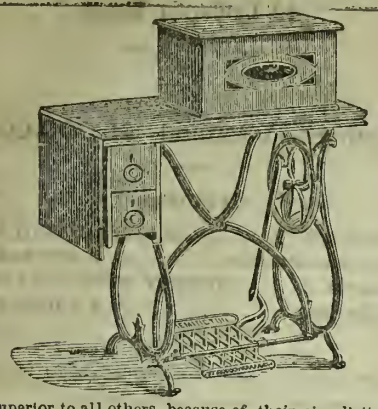
Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

REMINGTON SEWING MACHINES.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel. S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

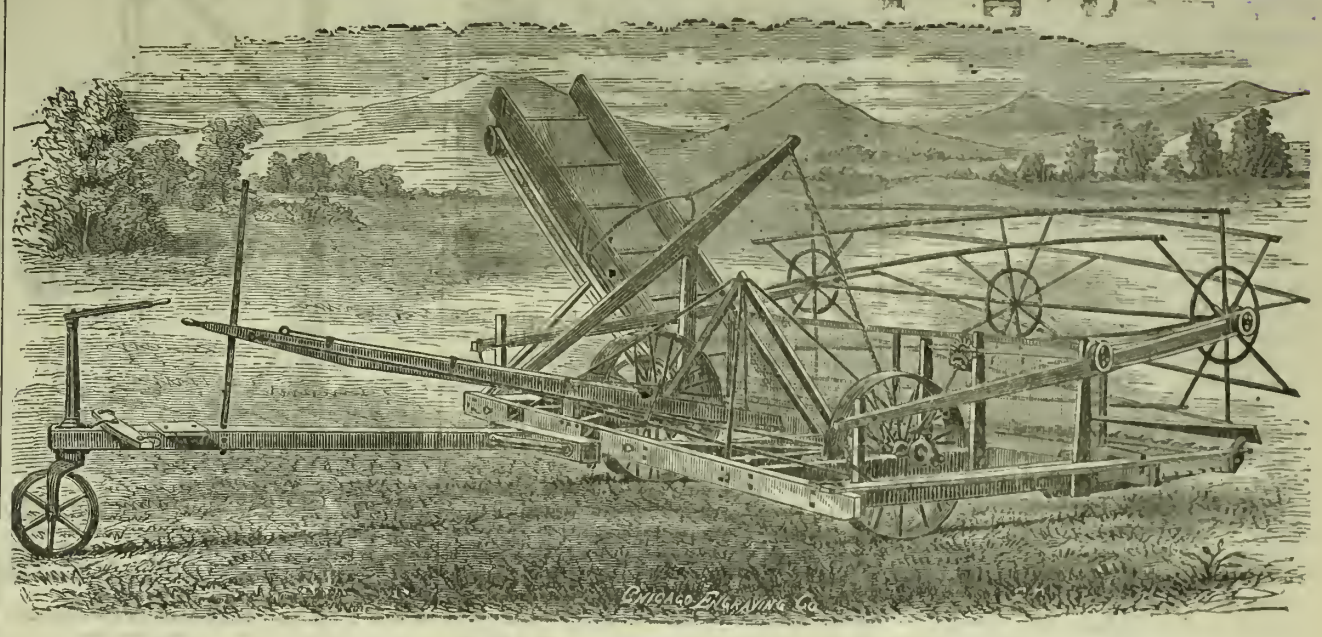
*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco

KELLER & CO.,



IMPORTERS AND DEALERS IN

AGRICULTURAL IMPLEMENTS, MACHINES AND FARMERS' TOOLS.

We are Sole Agents for the following Celebrated Machines:

J. I. Case & Co.'s 18-horse Engines.

We guarantee these Engines to furnish more power, with less fuel, than any other make in the market. They are handsome in appearance, mounted on substantial trucks, and furnished with driver's seat, roller break and hand pump.

J. I. Case & Co.'s 40-inch Separators,

With large cleaning capacity, made expressly and just imported for this trade.

Pitts' Down and Mounted Powers,

HEAVIER HAINES' IMPROVED SINGLE-GEAR HEADERS.

These Headers are manufactured by the same party who has superinteuded the building of all Headers ever made for this trade. Knowing the wants of this market, he has added many improvements for 1876, which will be found on no other Header.

J. I. Case & Co.'s Improved Single Gear,

WITH ADJUSTABLE SPOKES AND REEL.

These Headers are so well and favorably known that we only add for the year 1876 they are better made than ever before. We have these headers in sizes of 10, 12, 14 and 16 feet.

Mowers.

EXCELSIOR MEDIUM MOWER, EXCELSIOR JUNIOR MOWER, ÆTNA MOWER, WOOD'S MOWER, PEERLESS MOWER, MEADOW LARK MOWER. The finest assortment of noted Machines ever kept by one house.

Header Wagons.

The reputation of Fish Bros.' Pacific Wagons is so well established that parties buying these Wagons know without doubt they have the very best in the market. We have a large stock of IRON AXLE HEADER WAGONS. We guarantee them to run two years without the resetting of the Tires.

Lock-Lever Steel Tooth Hay Rake,

Awarded the FIRST PREMIUM at State Fair last fall as the best Steel Tooth Rake. This is a self-dumping Rake, and stands without a rival.

Sulky Revolving Rake

Has become very popular as the best Winrowing and Bunching Rake. Also, a full stock of Revolving Rakes.

Harpoon Hay Forks.

The double harpoon is the only reliable Horse Fork for all kinds of hay.

Faust's Hay Loader,

The only successful Hay Loader in the world.

Buckeye Corn Cultivator.

This is either a Riding or Walking Cultivator. More of them in use than all other makes combined.

The Gorham Seeder and Cultivator,

The Only Reliable Seeder now in Use.

Barbed Wire for Fence,

Also, Single Barbs, separate from the Wire. They can be attached to any Wire Fence anywhere. They are immovably clasped around the Wire, after the Fence is built, with pincers furnished for the purpose.

Halladay's Windmills.

They are the Standard Mill the world over. Have gained a reputation as broad as its use is extensive.

Wagons, Plows, Cultivators, Harrows, Seed Sowers, Etc., Header Knives, Mower Knives, Sections,

AT HALF THE USUAL PRICE PAID OTHER DEALERS.

Our Goods are the best in the market. Our prices are the lowest. Our manner of trading is well known all over the Coast. Our Machines are so well and favorably known that farmers make no experiment when trading with us. Send for Circular and Price List.

Address, KELLER & CO.,

43, 45, 47 J Street, Sacramento, Cal.

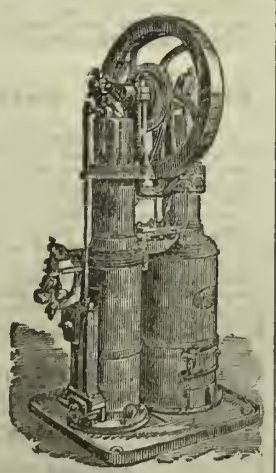
RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

Not a Valve, Spring, Cam, Lever or Eccentric about them.

ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.



Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

Send for Circular and Price List, or call and see one in operation.

HUNTINGTON, HOPKINS & CO.,

Sole Agents for the Pacific Coast,

Junction of Bush & Market Sts., S. F.

EXTRAS! | EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO

PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

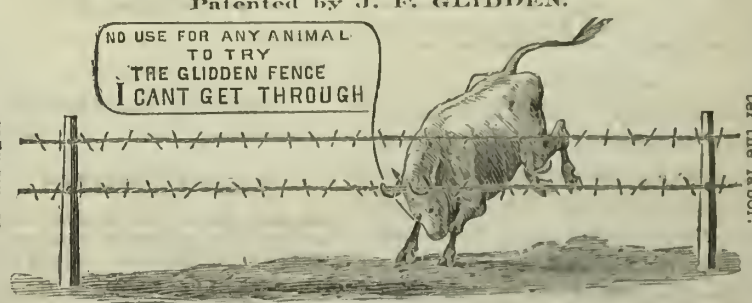
Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.



The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., May 16th, 1876.

FOR WEEK ENDING MAY 2ND, 1876.*

CARS FOR ONE RAIL RAILWAYS.—David B. James, Visalia, Cal.

PEN RACKS.—Carol E. Knsel and Carl H. E. Beckert, Oroville, Cal.

BREECH LOADING ORDNANCE.—Joseph R. M. Owen, Hamilton, Nevada.

SASH PULLEYS.—Arthnr R. Watterson, San Francisco, Cal.

ADJUSTABLE WATER GATE AND GAUGES.—Thomas Guerin, San Francisco, Cal.

HORSE COLLARS.—Adam Rutberford, Walla Walla, Washington Territory.

WATER CLOSET VALVES.—William Smith, San Francisco, Cal.

FRUIT DRIERS.—Oscar F. Tiffany, San Francisco, Cal.

REISSUES.

GRINDING AND AMALGAMATING PANS.—Charles Cummings, Virginia City.

TRADEMARKS.

COSMETIC.—Edgar B. Whitney, San Francisco, Cal.

*The patents are not ready for delivery by the Patent Office nntil some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

General News Items.

JUDGE DOWLING, of New York city, is dead.

THE New York custom house is to be investigated.

OXFORD has finally decided not to send a crew to America.

BARNUM bas been elected U. S. Senator from Connecticut.

VANDERBILT has almost entirely recovered from his late illness.

THE plague is still raging with increasing virulence at Bagdad and Muscat.

PRESIDENT GRANT has refused to pardon McKee and Maguire, of crooked whisky notoriety.

HON. SAMUEL PURDY has been elected superintendent of the City Hall by the Commissioners.

OMNIBUSSES are to run in opposition to onr street cars on the important routes of the city; fare to be five cents.

THE late floods in Maine and New Hampshire caused great loss of property, but no loss of life has been reported.

THERE are 12,000 non-paying attendants at the Centennial—exhibitors, 1,511; officials, 225; judges, 100; press, 500.

THE House of Representatives have passed the bill allowing Mrs. Fitch (*nee* Sherman) to receive her diamonds free of duty.

THE Park Commissioners, Eugene L. Sullivan, William Alvord and Lonis McLane, have tendered their resignations to the Governor, to take effect at the end of the fiscal year.

THE Government has decided to become a bidder at the sale of Harper's Ferry property, which is advertised to take place on the 20th of June next, at Harper's Ferry.

IT appears that at the time of the slaughter in Salonica, which grew out of the seizure of the Christian girl, the American consul was not in the place; so he could have had no part in it.

CAVENDISH DWARF BANANA.—With a view to introduce the banana in California, Mr. J. M. Asher, of San Diego Nursery, has made arrangements to receive from Florida five barrels of bulbs of the Cavendish Dwarf. This banana comes from middle China, and has been successfully cultivated in Florida for twelve years. Its native climate resembles that of California, and the few plants cultivated in this State have borne good fruit. If frost-bitten it will spring from the root and produce fruit the same year. Col. Whitner, the great banana grower of middle Florida, has discarded every other sort except the Cavendish. There can be no doubt of its growing south of Santa Barbara and also in many of the warm valleys of northern California. Parties can procure bulbs of J. M. Asher, San Diego, Cal., at cost price.

McCormick's Mowers and Reapers.

☞FARMERS wanting to purchase Mowers or Reapers this season will serve their own interest by examining the McCormick Machines before purchasing. Every McCormick Machine sold is guaranteed to give satisfaction to the purchaser, if correctly set up, or purchase money returned.

McCormicks' character as the inventor of the Reaping Machine is national. Their experience in the manufacture of Mowing and Reaping Machines, and improving them, extends over the past thirty years. Their facilities for manufacturing are the most complete, and the capital invested in the business the largest of any manufacturers in their line in the world. This of itself is a safe guarantee to those who patronize them that they will be well treated.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO,

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.

FOR SALE,

A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

For further particulars, apply to

W. R. STRONG & CO.,

6, 8 and 10 J St., - - - - Sacramento,

—OR—

STRONG & WILLIAMSON,

418 and 420 Clay St., - - - San Francisco.

CENTENNIAL.

5 Beautiful Views, size 3x4 inches each, of THE CENTENNIAL BUILDINGS at Philadelphia, postpaid for 25 cts; 5 sets for $1. Agents Wanted.

PHELPS BROS. & CO.,

125 Dearborn st., - - - CHICAGO.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.

WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm. Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

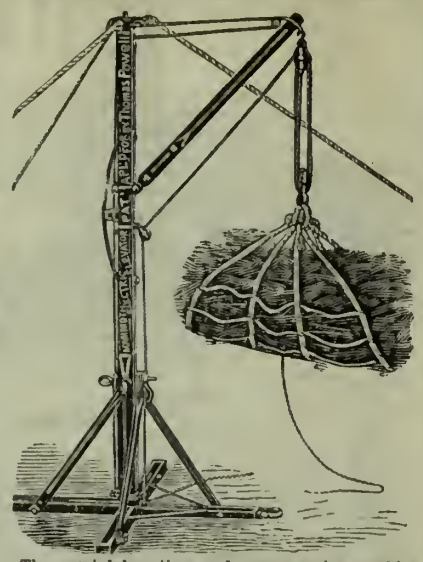
Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

FOR SALE,

A well improved Farm of 160 acres, with or without the crop, one-quarter of a mile from Linden, 12 miles from Stockton. Apply to

JAMES DRACE, Linden, Cal.

Powell's Electric Elevator.



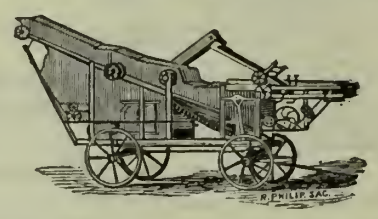
The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack, only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. C. SHAW PLOW CO., Stockton, Cal.

JACKSON'S

PATENT FEEDER & ELEVATOR



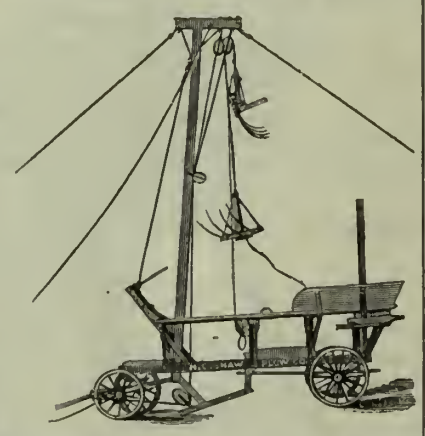
For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six months. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by **MATTESON & WILLIAMSON,**

Stockton, Cal.

Fine Dairy Farm for Sale.

An undivided half interest in a fine Dairy Farm of 640 acres patented land, all inclosed. One hundred acres is good agricultural land, on which fine crops of timothy hay, potatoes, apples, etc., are raised. Balance affords fine grazing for 100 head of cattle and is also handsomely timbered. Plenty of fine running water at all seasons, and a valuable mill site and privilege are on the land. A good cash home market for all the produce of the place. Improvements, a comfortable house, three large barns, farming implements, wagons, etc. Also 40 head of good milch cows, 60 head of young cattle, horses, etc. There is also a large outside range of from 2,000 to 3,000 acres held under possessory title. Will be sold at a bargain. For particulars apply to

BERRY & CAPP, 418 Mont'ry St.,

Real Estate Agents and House Brokers

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

D. H. WHITTEMORE, Worcester, Mass., makes a machine that at once pares an apple, slices off and separates. Warranted satisfactory. Price, $1 and $1.50 each. Sold by Dealers.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

*,*My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,

419 and 421 Sansome street, S. F.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks. PIGEONS. RABBITS. FERRETS.

BRONZE TURKEYS.

PRICE-LIST For 1876 Now Ready.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address **M. EYRE, Napa, Cal.**

Please enclose stamp.

Marster's Self Regulating

FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced fahleman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

E. J. MARSTERS,

Stockton, Cal.

Works, Corner California and Sonora Streets.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

POND LILIES,

WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,

Pacific Forest Tree Nursery, **Petaluma, Cal.**

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 17th, 1876.

There is notable to-day a slightly improved feeling in Wheat. The cable price advanced a point yesterday. The exceeding low price of freight rates to China, (the sharp competition between steamers having reduced the rate as low as 75c per ton in some cases,) has led to increased exports of common grades of Flour, insomuch that the grade of Wheat worked up into this style of Flour is reported scarce by the millers. The improvement in Wheat abroad has resulted from improved demand in the Continental markets. There was during last week a similar spurt upward in the Wheat trade in New York city. In New York there was brisk export demand for Wheat for the Continent, notably for Germany, Holland and Belgium, for which destination about three-fourths of a million bushels changed hands, the freight room for which comprised about 20 sailing vessels, averaging some 3,000 quarters each, at 5s 6d to 6s per quarter. This had the effect to resist the declining tendency of Wheat, and to cause a reaction of fully five cents per bushel from the late decline. The English demand has been slack, and the limits generally were too low to admit of the execution of orders. A few continental purchasers, however, served to wake Liverpool up, and the limits of the latest orders have been extended a little, though that market is still below. Some say that the belligerent aspect of the Eastern question is the cause of the demand from the Continent, but others insist that it is prompted by the exigencies of the north of Europe markets. It is evident that the price of Wheat for the next two months at least will hang largely upon the condition of the crop in both hemispheres, the abundant supply with which to meet the harvest having been clearly demonstrated.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	9s 6d@9s 9d	9s 10d@10s 2d
Friday	9s 6d@9s 9d	9s 10d@10s 2d
Saturday	9s 6d@9s 9d	9s 10d@10s 2d
Monday	9s 6d@9s 9d	9s 10d@10s 2d
Tuesday	9s 8d@9s 10d	9s 10d@10s 4d
Wednesday	9s 8d@9s 10d	9s 10d@10s 4d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 9d@13s —	13s —@13s 4d
1875	8s 11d@ 9s 2d	9s 2d@ 9s 6d
1876	9s 8d@ 9s 10d	9s 10d@10s 4d

The Foreign Review.

The unfavorable conditions which threatens the growing crop in England and the other features apparent in the trade are described as follows in the telegraphed review from the *Mark Lane Express* of May 15th: Vegetation has made little progress since last week's report, in consequence of the lowness of temperature. Autumn sown Wheat is strong enough to withstand the cold, but Barley and Oats are suffering considerably. Thousands of acres in Essex have been sown with Barley and other crops, the condition of the soil rendering it impossible to plant Wheat. The backwardness of cereals, however, is not in itself a cause for alarm, and the chances of disastrous frosts are daily becoming more remote. There is little change in the local trade. Holland, France and Belgium are buying direct from New York, Odessa, and other shipping ports. The supplies of foreign have lately been inconsiderable, but, with the opening of navigation at St. Petersburg, we may expect an increase, although it is probable that earlier shipments thence will be mainly for Germany, which has bought a considerable quantity. Maize has been freely taken for summer shipments, the very moderate prices tempting buyers.

Freights and Charters.

A large and active business was done in the freight market during the past week. There were more Wheat charters effected than for some time past. This was occasioned by the decline in the price of Wheat, which enabled exporters to pay the increased rates demanded for tonnage. The highest rate paid was £2 18s 6d to Cork for orders, and the lowest £2 15s. Several vessels were taken for July loading on a basis of £3 2s 6d. Following are the Wheat engagements for the week: Ship *Dexter*, 1,279 tons, Wheat to Cork for orders, U. K., £2 10s; Continent, £3 1s; ship *Winged Hunter*, 1,292 tons, Wheat to Cork for orders, U. K., £2 18s 6d; Continent, £3 3s 6d; ship *Gold Hunter*, 1,258 tons, Wheat to Liverpool, July loading, £3 2s 6d; ship *David Crockett*, 1,547 tons, Wheat to Cork for orders, U. K., £2 15s; Continent, £3. British ship *River Indus* 1,045 tons, Wheat to Liverpool, July loading, private British ship *Oakworth*, 1,202 tons, Wheat to Liverpool, July loading, private. British ship *Silverhow*, 1,221 tons, Wheat to Liverpool, prior to arrival, private. Ship *Rufus E. Wood*, 1,476 tons, Wheat to United Kingdom, private. Bark *Martha Davis*, 871 tons, Wheat to Great Britain, private.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week Apr. 26.	Week May 3.	Week May 10.	Week May 17.
Flour, quarter sacks	21,026	34,703	21,465	34,912
Wheat, centals	42,941	22,406	59,330	57,285
Barley, centals	23,260	16,283	14,454	11,825
Beans, sacks	763	1,716	944	1,521
Corn, centals	....	1,415	4,043	3,803
Oats, centals	4,910	207	1,071	1,753
Potatoes, sacks	11,209	6,828	10,091	5,262
Onions, sacks	801	130	822	128
Wool, bales	7,767	8,476	8,613	8,072
Hops, bales	90	19	98	161
Hay, bales	1,310	951	1,291	1,072

Bags—Quotations for Bags are unchanged. There has been published in the city dailies a statement endeavoring to show that there will be a deficiency of seven and a half millions in the Bag supply for this harvest. We regard the publication as wholly an effort to bull the market and advance the price of bagging material. We are informed that the supplies to arrive are made too small, and the estimated requirements are made on a basis of 1,200,000 tons of Wheat for export, no allowance being made for the large amount which will probably be stored if the present prospects of medium prices be realized. There are large quantities of Bags now held in this city which holders are anxious to sell at high prices, hence the attempt to bolster the market to an exorbitant figure. Even if the crop should be as large as estimated now, farmers can probably secure Bags and Burlaps from the East at less prices than holders are now evidently aiming at.

Barley—The first sample of new crop Barley was received during the week from Messrs. Haws & Egbert, of Tulare, and was exhibited on 'Change. Some 120 sacks or more had been threshed by machinery. The sample was of choice quality for so early a date. There was no offer to sell, as a better price can be had at place of growth than here. Of old Barley the price remains as before. We note sales: 1,500 sks Sherman Island Feed at $1.15: 210 do Bay Feed, $1.20; 200 do do, $1.22½—all silver; 881 do Bay Feed, $1.15, gold; 200 sks Bay Feed, $1.17½, silver; 650 sks choice Bay Feed, $1.15, gold; 1,000 sks Bay Brewing, $1.25, half silver; 1,000 sks good Salinas Feed at $1.12½; 90 tons Chevalier at $1.12½@1.15; 1,000 sks Coast Feed, $1.12½; 900 do good Feed, in two lots, $1.15; 1,000 do Brewing, $1.25; 150 do Coast Chevalier, $1.15; 1,500 sks good Bay Feed, 1.15, silver; 800 do do, $1.15, part silver; 200 do choice Bay Feed, $1.20, silver; 2,500 sks Bay Feed, $1.15@1.20, part silver, per ctl.

Beans—Beans are not materially changed.

Corn—Corn is stationary. We note sales: 700 sks fair large Yellow at $1.12½; 200 do choice do, $1.17½, both half silver; 300 sks small Yellow, $1.25; 700 sks large Yellow, $1.12½, half silver; 200 do do, $1.17½ per ctl, silver.

Dairy Produce—Butter is still in large supply and unchanged in price. Cheese is more plenty. There is a wide diversity in quality. We hear of sales of "off flavor" Cheese as low as 8c. Old California Cheese is out of the market. The figure 15c for new Cheese is an extreme price and gained only by favorite brands.

Eggs—Eggs are unchanged.

Feed—New Bay is more abundant. We note sales: 46 tons poor, $10; 38 do fair new stock, $10; 30 do do $11; 40 do good do, $11.50; 113 tons new mixed, in lots, at $10@11.50; 20 tons poor at $8; 40 do new Volunteer, $12.50 per ton. Choice Wheat is quoted at $18 per ton. Common grades are very dull. There has been a general reduction in Mill Feeds, as appears in our tables. Bran and Middlings are selling from the mills at lower prices. Oil Cake Meal is lowered to $35 per ton.

Fruit—A cargo of 308,000 Tahiti Oranges has arrived during the week. This shipment came to hand very opportunely, as the market was almost bare. Strawberries are more abundant and prices are lower. Other fruits have sold as follows: Cherries, 8@35c ₰ lb; Gooseberries, 6@8c ₰ lb; Cranberries, $13.50@14.50 per bbl; Apricots, the first of the season, 50c ₰ lb.

Fish—Salmon is less abundant and the price higher. Other kinds of Fish are generally lower.

Hops—The local market is unchanged. We note a sale of 24 bales at 13c. Emmett Wells reports the New York market, for the week ending May 5th, as follows: "We have to report another dull week in Hops. Aside from the small shipments abroad, there has been literally nothing doing, and our quotations remain entirely nominal."

Oats—Oats are in good demand, with light receipts and slightly improved quotations.

Onions—Onions are scarcer. New Onions are received and sell to-day at $1.75@2.00 per ctl. We note sales; 50 sks new at $2: 34 sks good Stockton at $2.50.

Potatoes—The large amounts of Potatoes previously reported has restricted consignments, and the price has advanced a little. We note sales: 80 sks choice Tomales, at $1.25. Poor are dull at 75@80c. 150 sks Tomales and Petalumas, in two lots, at $1.12½, and there are rumors of sales at $1.17½; Salt Lakes have also made a small advance. New range from $2.50@3.50 per ctl. Sales of old Potatoes during the early days of the week were at lower prices than the above.

Provisions—Beef is lower, and choice qualities are more abundant. Mutton is lower and the market is heavily stocked. Hogs are a trifle weaker; the supply is moderate and price still rules too high for packers.

Poultry—Turkeys are still higher. Other kinds are unchanged.

Vegetables—String Beans and Summer Squash are more plenty and lower.

Wheat—Although there is noted to-day an improved feeling in Wheat, it does not yet embody itself in transactions. Our quotations are unchanged, and sales noted below cover all the days since our last report. We note sales: 820 sks Oregon Shipping at $1.55; 200 do Good Coast, $1.55, half silver; 700 do Choice Milling, $1.70; 2,500 do Good Shipping, $1.60; 600 do Good Coast Superfine, $1.50; 1,200 sks Good Shipping at $1.60 per cental; 600 sks Choice Milling, $1.70; 2,000 sks Choice Stockton Milling, $1.70; 450 do Fair Shipping, $1.62½; 4,000 sks Stockton Superfine, $1.50; 450 sks Fair Milling, $1.62½; 2,000 ctls Choice do, $1.70.

Wool—Wool does not change in our local market. There are large amounts sold at the prices which have been quoted from week to week since the opening. We note sales of 344,000 lbs at a range of 13c to 17c; 24,000 lbs Short Heavy at 11@13c; 47,000 lbs Average San Joaquin, 14@14½c; 31,000 lbs Northern, 18½c. The Eastern markets are reported by telegraph as follows:

NEW YORK, May 13th.—We have again to report a dull market for all descriptions of both carpet and clothing material; not the least sign of improvement can be detected in any quarter, and from the present outlook there will be no business of importance until manufacturers commence on fall and winter wear. New Spring California meets with only moderate demand, but the views of holders are low. Sales are 120,000 lbs old Spring at 16@16½c; 575,000 lbs new do, part 17½@18c; 17,500 lbs California pulled, 21@30c; and 20,000 lbs scoured Fall California, 50c.

BOSTON, May 13th.—Domestic Wool is in fair demand, but prices are low and unsatisfactory, with no prospect of a favorable change. Sales of fleece Wool indicate no change in prices, although forced sales could only be made at a concession. Ohio and Pennsylvania fleeces are selling at 39½@42c for X, and 41½@42½c for XX; Michigan and New Hampshire fleeces 25c, and this is all that can now be realized for good average lots of Michigan. Transactions in coarse Wool have been the largest in some weeks. Supplies of the new spring clip are arriving freely, and holders are free sellers at current rates. Transactions for the week are 433,000 lbs., and includes Whitney clip, 40,000 lbs., at an extreme price, which would be no criterion of the market. Prices of new spring ranged from 17 to 27c, and include some very desirable lots at 24@25c, and 27c. We quote fair and good average lots at 20@25c, and choice at 26@28c, with an occasional fancy clip at an advance on the latter rates. Sales of new Wool, so far, have scarcely realized cost, and manufacturers purchase cautiously at current rates.

GENERAL MERCHANDISE.

[WHOLESALE.]

WEDNESDAY M., May 17, 1876.

Article	Price
BAGS:	
Eng. Stand Wbt..	12½@13
Neville & Co's... Hand Sewed....	12½@13
24x36	— @—
24x40	— @—
Machine do 24x40.	13 @14
" " 23x40.	12½@13
" " 22x40.	11½@12½
" " 22x36.	11½@12½
Flour Sacks ½s....	9½@11
" " ¼s....	6¼@ 7
" " ⅛s....	4½@ 5
Hessian 60-in.	12¼@14½
do 45-in.	9½@10
do 40-in	8 @ 8½
Wool Sacks, 3½ lbs.	45 @50
do 4 ".	50 @52½
Stand. Gunnies...	— @16
single seam do..	— @—
Bean Bags	7½@ 8
CANNED GOODS.	
Asst'd Pie Fruits in 2½ lb cans.	2 75 @ 3 00
do Table do...	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl..	— @ 3 50
Sardines, qr box	1 65 @ 1 90
do hf boxes.	3 00 @— —
COAL—Jobbing.	
Australian, ₰ ton	— @10 50
Coos Bay	8 00 @10 00
Bellingham Bay.	— — @ 8 50
Seattle	9 25 @10 50
Cumberl'd	— 16 @— 18
Mt. Diablo	6 25 @8 25
Lehigh	— — @22 00
Liverpool	10 00 @11 00
West Hartley	— — @14 00
Scotch	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl.	10 50 @12 00
Charcoal, ₰ sk...	75 @ —
Coke, ₰ bbl	— @ 60
COFFEE.	
Sandwich Island	— @ 21½
Costa Rica per lb	22½@ —
Guatemala	— @ 22½
Java	— @ 30
Manilla	— @ 21½
Ground in cs....	25 @ —
Chicory	27 @ —
FISH.	
Sac. Dry Cod, new	4 @ 4½
cases	6 @ 7
do boneless	8½@ 10
Eastern Cod	7½@ 8
Salmon in bbls..	7 00 @8 00
do ½ bbls	3 75 @4 00
do 2 lb cans..	2 25 @2 40
do 1 lb cans..	1 25 @1 61
do Col. R. ½b.	5 00 @5 50
Pick. Cod, bbls.	22 00 @ —
do ½ bbls	11 00 @ —
Mack'l, No.1, ½bbl	12 50@13 00
" Extra	— @12 00
" in kits....	2 20 @2 75
" Ex mess.	4 00 @4 50
" Ex mess. ½bs	—@12 00
Pic'd Herr'g, bx..	3 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50
LIME, ETC.	
Lime, S'ta Cruz, ₰ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Land Plaster, ₰ ton	10 00@12 50
MISCELLANEOUS.	
Pulu	— @ 7½
NAILS.	
Assorted size, keg	3 75 @4 00
OILS.	
Pacific Glue Co Neat F't No. 1.	1 00 @ 90
Pure	— @ —
Castor Oil, No.1..	— @1 15
Baker's A A	— @1 15
Cocoanut	52 @ 55
Olive Plagniol..	5 50 @5 75
do Possel	4 75 @5 00
Palm lb	9 @ —
Linseed, raw	— @ 70
do boiled	— @ 75
China nut in cs..	65 @ 67½
Sperm, crude	1 60 @1 65
do bleached..	1 90 @2 25
Coast Whales	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Oleophine	— @ 28
Devoe's Bril't	25 @ 27
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive	— @3 50
Downer Kerose'e	— @ 37½
Elaine	37½@ —
Gas Light Oil	23 @ 25
PAINTS.	
Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochre	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal. White & tints.	2 00 @2 40
Green, Blue & Ch Yellow..	3 00 @3 50
Light Red....	3 00 @3 50
Metallic Roof.	1 30 @1 60
RICE.	
China No. 1..	5 00 @ —
Hawaiian, ₰ lb..	7½@ 7¾
Carolina. ₰ lb..	10 @ [illegible]
SALT.	
Cal. Bay, per ton	10 00@14 00
do Common..	6 00@ 7 00
Carmen Island..	12 00@15 00
Liverpool fine..	22 50@25 00
SOAP.	
Castile ₰ lb	10 @ 11¼
Common brands..	4½@ 6
Fancy do ..	7 @ 9
CANDLES.	
Grant's	16½@ 17
Mitchell's	20 @ 22
SPICES.	
Cloves ₰ lb	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmeg	95 @ 97½
Whole Pepper	14½@ 15½
Pimento	16 @ 17
Gr'nd Allsp pr dz	— @1 12½
do Cassia do..	— @1 50
do Cloves do..	— @1 50
do Mustard do	— @1 20
do Ginger do..	— @1 00
do Pepper do..	— @1 00
do Mace do	— @2 00
Bowen's Pure Ground ₰ lb	— @ 50
SUGAR, ETC.	
Cal. Cube per lb..	— @ 12
Circle A crushed	— @ 12
Powdered	— @ 12¼
Fine crushed	— @ 12
Granulated	— @ 11½
Golden C	— @ 10½
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 70
Hawaiian Molasses	25 @ 27½
TEA.	
Oolong, Canton, lb	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpo'der, Cant.	75 @1 00
do Pingsuey	50 @ 90
do Moyune.	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune..	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½&1 lb paper	30 @ 55
TURPENTINE.	
Eastern	51½@55

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., May 17, 1876.

Article	Price
FRUIT MARKET.	
Oranges Mex. ₰ M	— —@— —
Tahiti, do	30 00@35 00
Cal. do	30 00@80 00
Limes, Mexican, ₰ M	10 00@— —
Malaga Lemons, ₰ bx	— —@— —
Cal. ₰ 100	2 00@ 3 00
do Sicily ₰ b'x.	9 00@— —
Bananas, ₰ bnch	2 50@ 3 00
Cocoanuts, ₰ 100.	6 00 @ 7 00
Pineapples, ₰ dz.	6 00 @ —
Apples, ₰ box...	1 87½@ —
do Choice	2 00 @4 00
Blackberries	— @ —
Cherries. ₰ lb...	8 @ 35
Figs	— @ —
Huckleberries	- @ —
Strawber's ₰ cse	5 50 @8 00
Pomgranates	— @ —
Raspberries	— @ —
Currants. ₰ ch	— @ —
Cranberries ₰ bbl.	13 00@14 00
Peaches, ₰ bx..	— @ —
Pears, ₰ bx	1 75 @3 00
do Choice	— @ —
Crab apples. ₰ bx	— @ —
DRIED FRUIT.	
Apples. ₰ lb	9 @12½
Pears, ₰ lb	8 @13
Peaches, ₰ lb	12 @12½
Apricots, ₰ lb	14 @15
Plums, ₰ lb	5 @ 6
Pitted, do ₰ lb	17 @22
Raisins, imported.	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₰ lb	5 @10
White, do	12½@15
Prunes	12½@17
Citron	28 @ 30
Zante Currants.	9 @ 10
VEGETABLES.	
Asparagus ₰ box.	1 00@1 50
Beets ₰ ctl	— @ 75
Cabbage, ₰ 100 lbs	1 00@1 25
Carrots, per ton.	12 50@15 00
Cauliflower, doz..	50@ 75
Celery, doz	50@ 1 50
Garlic. ₰ lb	7 @ 9
Green Peas ₰ lb	1½@ 3
Green Corn ₰ doz..	— @—
Sum'r Squash ₰ lb...	7 @—
Marro'fat Sqsh, tn	20 00@
Artichokes, ₰ doz..	— @—
String Beans, ₰ lb.	10 @ —
Lima Beans	— @—
Parsnips	— @—
Shell Beans	— @—
Peppers, green, bx.	— @—
Okra	— @—
Cucumbers, ₰ doz	1 25@1 75
Tomatoes, box	— @ —
Egg Plant, bx	— @ —
Rhubarb	1 @ 2½
Lettuce	— @ —
Turnips, pr ctl	75@1 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & Co.]

SAN FRANCISCO, May 17, P. M.

LEGAL TENDERS in S. F., 11 A. M., 89½ to 90. Silver, 4 to 5 per cent. discount.

GOLD in N. Y. 112½.

GOLD BARS, 900 to 910. SILVER BARS, 12 and 20 per cent. discount.

EXCHANGE on N.Y., 50-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 9 per cent. discount.

LONDON — Consols, 93 to 93⅛; Bonds, 102⅝.

QUICKSILVER in S. F., by the flask, per lb, 72½c@75c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., May 17, 1876.

Article	Price
BEANS.	
Bayo, ₰ ctl	5 00@ —
Butter	2 00@2 50
Pea	2 12½@2 25
Pink	— —@2 50
Sm'l white	1 85@2 00
Lima	2 10 @2 37½
BROOM CORN.	
Common, ₰ lb..	2 @ 3
Choice, do	4 @ 5
COTTON.	
Cotton, ₰ lb	15 @ 18
DAIRY PRODUCE, ETC.	
BUTTER.	
Cal. Fresh Roll per lb	22½@ 27½
Point Reyes	— @ 30
Firkin	25 @ 27½
W'st'n Reserve.	16 @ 20
New York	— @ —
CHEESE.	
Cheese, Cal., lb..	10 @ 15
do Old	— @ —
Eastern	15 @ 17
EGGS.	
Cal. fresh ₰ doz	27½@ 30
Ducks'	— @ 25
Oregon	— @ 25
Eastern	22½@ 24
FEED.	
Bran, per ton	— — @17 00
Corn Meal	27 50 @28 00
Hay	13 00 @18 00
Middlings	20 00 @— —
Oil cake meal	— — @35 00
Straw, ₰ bale	50 @ 60
FLOUR.	
Extra ₰ bbl	5 25 @5 87½
Superfine	4 50 @4 75
Graham, ₰ bbl	5 50 @ —
FRESH MEAT.	
Beef 1st quality lb.	6½@ 7
Second do	3½@ 4
Third do	2 @ 3
Spring Lamb	5 @ 5½
Mutton	3½@ —
Pork, undressed	7¼@ 6
do, dressed	11 @ 11½
Veal	5 @ 6
Milk Calves	6½@ 7½
GRAIN, ETC.	
Barley, feed ctl	1 10 @ 1 15
do brewing.	1 22½@ 1 27½
Chevalier	1 25 @ 1 45
Corn, White	1 10 @ 1 17½
do Yellow	1 10 @ 1 15
Oats	2 00 @ 2 62½
Milling	— — @ 2 75
Rye	— — @ 2 00
Wheat shipping	1 60 @1 65
do milling	1 70 @1 75
HIDES.	
Hides, dry	10 @ 12
do wet salted	6 @ —
HONEY, ETC.	
Beeswax, per lb..	25 @ 27½
Honey in comb..	12½@ 15
do Strained	8 @ 13
HOPS.	
New crop	10 @ 13
NUTS—Jobbing.	
Alm'ds h'rd sh'l lb	8 @ 10
do, soft sh'l	16 @ 18
Brazil do	14 @ 16
Cal. Walnuts	7 @ 11
Chile Walnuts..	11 @ 12½
Peanuts per lb..	9 @ 10
Filberts	15 @ 16
Pecanuts	17 @ 18
ONIONS.	
Union City ctl.	2 75 @ 3 00
Stockton	2 75 @ 3 00
POTATOES.	
Petaluma, ₰ ctl	75 @ 1 12½
Salt Lake	1 25 @ 1 37½
Humboldt	1 12½@ 1 25
Early Rose	2 00 @— —
Sweet	— @— —
New, lb	1 @ 3½
POULTRY & GAME.	
Hens, per dz	9 00 @10 00
Roosters	— @11 00
Broilers	6 00 @8 00
Ducks, tame, dz	8 00 @9 00
do Mallard	— @5 00
do Canvass	— @5 00
Geese, per pair	2 00 @ —
Wild Gray dz	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, lb	23 @ 24
do Dressed	24 @ 27
Quail, per doz	— @ —
Snipe, Eng., doz.	2 00 @2 50
Doves, per dozen	50 @ 75
Rabbits	1 00 @1 50
Hare, per doz	1 50 @2 00
PROVISIONS.	
Cal. Bacon, L't, lb	16½@ 17
do Medium	16 @ 16½
do Heavy	— @ 15½
Lard	15 @ 17
Cal. Smoked Beef	9 @ 10
Eastern do	— @ 10
East'rn Should's	— @ 10
Hams, Cal	14 @ 14½
do Armour	14½@ 15
do Worster's.	16½@ 17
do Dupee's..	16 @ 16½
do Davis Bros'	16½@ 17
SEEDS.	
Alfalfa, Chile lb.	8 @ 10
do California.	11 @ 12
Canary	18 @ 20
Clover Red	— @ 25
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3¼
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white.	3 @ 3½
do. Brown	3 @ 3½
Rape	7 @ 9
Ky. Blue Grass..	33 @ —
do 2d quality..	29 @ —
Sweet V Grass..	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	11 @ 13
TALLOW.	
Crude, ₰ lb	7 @ 7¼
Refined	9 @ 10
WOOL, ETC.	
SPRING—	
Seedy, ₰ lb	11 @ 12½
Choice long free	17 @ 18
do short	13 @ 16½
Burry	10 @ 14
Oregon	— @ —

S. F. RETAIL MARKET RATES.

WEDNESDAY M., May 17, 1876.

Article	Price
POULTRY, GAME.	
Chickens	87 @1 25
Eggs, Hens	35 @ —
do Ducks'	— @ 30
Turkeys. ₰ lb..	30 @ —
Ducks, each	1 00 @1 25
Geese, wild, pair.	— @ —
Tame, ₰ pair..	4 00 @5 00
Snipe, ₰ doz	— @ —
do English..	— @3 00
Quail, per dozen	— @ —
Prairie Ch'k s, pr	— @ —
Hares, each	25 @ 35
Rabbits, each	25 @ 37
Squirrels do	10 @ 15
Hams, Cal. ₰ lb	16 @ 20
FISH, MEATS, ETC.	
Flounder, ₰ lb	12 @ 15
Salmon, ₰ lb	— @ 5
Smoked	— @ 10
Cod Fish, lb	12 @ 15
Lake Big. Trout.	— @ 35
Beef, tend, ₰ lb.	20 @ 25
Corned, ₰ lb..	8 @ 10
Smoked, ₰ lb..	— @ 15
PorterHouse St'k	20 @ 25
Sirloin do	15 @ 20
Round do	10 @ 12
Pork, rib, etc., lb	12½@ 15
Chops, do, ₰ lb	15 @ 20
Veal, ₰ lb	12½@ 15
Cutlet, do	20 @ 25
Mutton-chops, lb	6 @ 9
Leg Mutton, ₰ lb	10 @ 15
Lamb, ₰ lb	12 @ 15
Antelope	15 @ 20
Tongues, beef,	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, lb	12½@ —
Bacon, Cal., ₰ lb	18 @ 20
FRUITS, VEGETABLES.	
Apples, pr lb	10 @ 15
Pears, per lb	— @ —
Apricots, lb	— @ —
Peaches, lb	— @ —
Plums	— @ —
PineApples, each	75 @1 00
Grapes	— @ —
Bananas, ₰ doz..	75 @1 00
Muskmelons	— @ —
Watermelons	— @ —
Blackberries	— @ —
Cal. Walnuts, lb..	— @ 20
Cranber'es, Org.,	— @ —
do Eastern qt.	— @ 25
Huckleberries	— @ —
Strawberries, lb	30 @ 35
Raspberries. lb.	— @ —
Gooseberries	— @ —
Currants	— @ —
Cherries, ₰ lb	— @ —
Nectarines	— @ —
Pomegranates	— @ —
Oranges, ₰ doz..	50 @1 25
Lemons	75 @1 00
Limes, per doz..	— @ 25
Figs, dried Cal.	12½@ 15
Figs, Smyrna, lb	25 @ 35
Asparagus, lb..	5 @ 8
Artichokes, doz.	50 @ 75
do Jerusalem..	— @ 8
Beets, ₰ doz	20 @ 25
Potatoes, ₰ lb	2 @ 3
Potatoes, sweet..	— @ 6
Broccoli, each..	10 @ 15
Cauliflower	10 @ 15
Green Peas ₰ lb.	4 @ 8
Cabbage, per hd..	15 @ 20
Oyster Plant, bn	— @ 12½
Carrots, ₰ doz.	— @ 25
Celery, ₰ dz	75 @1 00
Cress, ₰ doz bun	20 @ 25
Onions	4 @ 5
Turnips, ₰ doz bunches	— @ 25
Brussels Sprouts	— @ —
Eschalots	— @ 35
Dried Herbs, doz	30 @ 50
Garlic ₰ lb	12½@ —
Green Corn, doz.	— @ —
Lettuce, ₰ doz..	25 @ —
Mint, ₰ bunch,	— @ 12½
Mushrooms, ₰ lb	25 @ 35
Horse radish. ₰ lb	15 @ 25
Okra, dried, ₰ lb	40 @ 50
Pumpkins. ₰ lb.	5 @ 6
Parsnips, doz	— @ 25
Parsley	12½@ —
Pickles, frsh. ₰ lb	— @ —
Radishes, doz..	20 @ 25
Sage	— @ 25
Marrowfat, do	1½@ —
Hubbard. do	— @ —
Mangoes, ₰ doz.	— @ —
Spinage ₰ bskt.	— @ 12½
Rhubarb	8 @ 12
Green Chilles	— @ 25

LUMBER.

Article	Price
CARGO PRICES OF REDWOOD.	
Rough, ₰ M	$18 00
Rough refuse, ₰ M	14 00
Rough clear, ₰ M	30 00
Rough clear refuse, M..	20 00
Rustic, ₰ M	32 50
Rustic, refuse, ₰ M	24 00
Surfaced, ₰ M	30 00
Surfaced refuse, ₰ M	20 00
Flooring, ₰ M	28 00
Flooring, refuse, ₰ M..	20 00
Beaded flooring, ₰ M	30 00
Beaded floor, refuse, M.	25 00
Half-inch Siding, M	22 50
Half-inch siding, ref. M.	16 00
Half-inch, Surfaced, M.	25 00
Half-inch Surf. ref.. M.	18 00
Half Inch Battens, M	22 50
Pickets, rough, ₰ M	13 00
Pickets, rough, p'ntd	18 00
Pickets, fancy, p'ntd	25 00
Shingles, ₰ M	3 00
PUGET SOUND PINE—Retail Price.	
Rough, ₰ M	22 50
Fencing, ₰ M	22 50
Flooring and Step, ₰ M	32 50
Flooring, narrow, ₰ M..	35 00
Flooring, 2d quality, M..	25 00
Laths, ₰ M	3 50
Furring, ₰ lineal ft	— —
REDWOOD—Retail.	
Rough, ₰ M	22 50
Rough refuse, ₰ M	18 00
Rough Pickets, ₰ M	18 00
Rough Pickets, p'd, M..	20 00
Fancy Pickets, ₰ M	30 00
Siding, ₰ M	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ₰ M	25 00
Half-inch surfaced, M..	32 50
Rustic, No. 1, ₰ M	40 00
Battens, ₰ lineal foot..	½
Shingles ₰ M	3

RETAIL GROCERIES, ETC.

WEDNESDAY, M., May 17, 1876.

Article	Price
Butter, Cal. ch'ice	30 @ 37
Cheese, lb	18 @ 30
Eastern	25 @ 30
Lard, Cal., lb	— @ 18
Eastern	20 @ 25
Flour, ex. fam, bl	6 25 @8 50
Corn Meal, lb	2½@ 3
Sugar, wh. crsh'd	12½@ 13½
do lt. brown, lb	8 @ 9½
Coffee, green, lb..	23 @ 35
Tea, fine blk, 50, 65, 75	@1 00
Tea, finest Jap, 55, 75, 90	@1 00
Candles, Admant'e	15 @ 25
Soap, Cal., lb	7 @ 10
Rice, lb	8 @ 12½
Yeast Powder, dz.	1 50 @2 00
Bowen Bro. large can per doz	5 00 @— —
Small, do	2 50 @ —
Bowen's Cream Tartar lb	— @ 75
Can'd Oysters, dz.	2 00 @3 50
Syrup, S F. Gol'n.	75 @1 00
Dried Apples	10 @ 12½
Dr'd Ger. Prunes	12½@ 14
Dr'd Figs, Cal	9 @ 10
Dr'd Peaches	11 @ 15
Oils, Kerosene	30 @ 40
Wines, Old Port	3 50 @5 00
do Fr. Claret..	1 00 @2 50
do Cal., dz. bot.	3 00 @4 50
Whisky, O K, gal.	3 50 @5 00
Fr. Brandy	4 00 @8 00

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market ratee a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globuine, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS, Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS: all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, Including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

The Gilmore Angora Goat BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Ca

FOR SALE.

NEW ZEALAND GRASS SEED

By HELLMANN BROS. & CO.,

Cor. Front and Jackson Streets, San Francisco.

Agricultural Articles.

THE Improved Eagle Hay Press

CHEAP, STRONG, ECONOMICAL, POWERFUL AND RAPID.

THE KIMBALL MANUFACTURING CO.,

Owners of the Patent, and Sole Manufacturers on the Pacific Coast, make

Cars, Carriages and Agricultural Implements,

Cor. Fourth and Bryant streets, S. F.

Pressing hay in bales in a compact and easily managed shape has become one of the features in the industry of California farming.

The large sales the past season, and the increasing demand of the present, gives proof of the advancement of the Improved Eagle Hay Press over all competitors on this Coast.

Three men, with a team, can bale from ten to fifteen tons per day, each bale weighing from 250 to 350 lbs., according to the quality of the hay. It uses less rope than any other press of its size. Size of bale box, 49 inches long, 26 inches wide and 27 inches high.

These presses are made in San Francisco, by the KIMBALL CAR AND CARRIAGE MANUFACTURING CO. Also manufacturers of agricultural implements, California grading scraper, farming tools, carts, plows, wheel harrows, portable railway track and cars, railway and street cars, omnibusses, Taylor's patent tubular iron and wood harrows, with driver's seat attached, Harris' patent tubular iron square or Scotch harrow, steam fire engines, Hayes' patent fire escape, Southwick's patent turbine windmill, quartz and farm wagons, trucks, road scrapers, all styles and grades of harness; carriages trimmed to order; manufacturers and agents of Tulloch's automatic ore feeder; machinery made and repaired; fine carriages and all styles of buggies.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures.

Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,

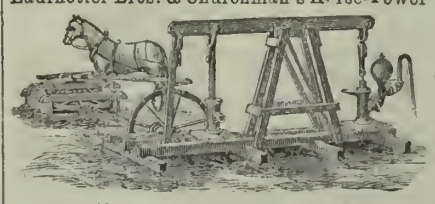
Livermore, Alameda County, Cal.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never liable to get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.

TABER'S IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

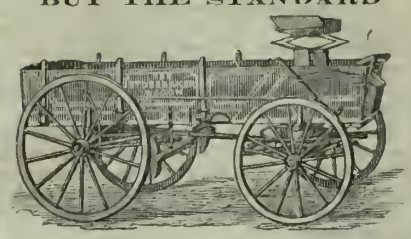
Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL.,

Will receive Prompt Attention.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal

OAKLAND

Spring Balance

Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1853. Send for Circular and Price-list.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

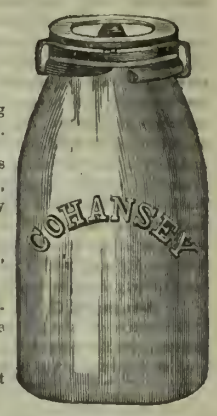
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

COHANSEY GLASS TOP FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Cal

E. K. CUMMINGS. 1858. H. H. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Egg and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 44 Cal. Market S.F

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS CO., 609 Sacramento St., S. F. Send for Circular.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 100 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD, San Luis Obispo.

FRANK BROS. & CO.,

349 Market Street, - - - - - - - San Francisco, Cal.

WALTER A. WOOD'S

IMPROVED IRON MOWER

23,507 were made and sold last year. Their immense sale and unprecedented success IN PRACTICAL FIELD WORK, fully establishes their superiority over all other machines for SIMPLICITY and PERFECTION of CONSTRUCTION.

WALTER A. WOOD'S

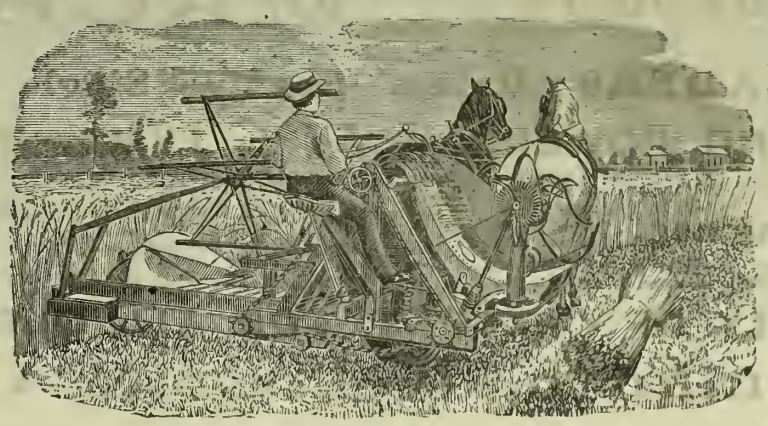
Chain Rake and Sweep Rake Reaper.

WALTER A. WOOD'S

Harvester and Self-Binder.

The Greatest Labor-Saving Machine of the Age.

COATES' LOCK LEVER SULKY RAKE.



WALTER A. WOOD'S HARVESTER AND SELF-BINDER.

THE CELEBRATED

La Belle Farm and Freight Wagon.

SWEEPSTAKES THRESHERS,

SPECIALLY IMPROVED FOR THE PACIFIC COAST.

HAINES' HEADER,

WITH ALL THE LATEST IMPROVEMENTS.

Chaplin & Tiffin's Revolving Rakes,

Warranted the Best in the Market.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

BEFORE PAINTING YOUR HOUSES

Send for Sample Card and Circular and Carefully Examine the

AVERILL CHEMICAL PAINT,

MIXED READY FOR USE.

This Paint is prepared in liquid form, READY FOR THE BRUSH. It requires no addition of oil or spirits. It is composed of the best materials known to the trade—Pure Linseed Oil, Strictly Pure White Lead, Pure Zinc, and the finest of coloring matter for tinting. It is the BEST, CHEAPEST, MOST DURABLE AND BEAUTIFUL PAINT IN THE WORLD. Is just what is wanted by every farmer, mechanic and everybody who has a house, fence, barn, or wagon to paint. Requires no skilled labor, as any one can apply it who can handle a brush. It is put up in cans of any required size, from a quart to five gallons, and is SOLD BY THE GALLON. It gives a firm, elastic and brilliant glossy finish, and will neither crack, peel or wash off, like most paint in common use, but is proof against rainstorms and all action of the elements. Buildings painted with this paint five years ago look fresh and like new to-day and will need no more paint for years. Of no other paint can this be said and proved.

The Averill Chemical Paint Company supply a long-felt want. They not only furnish a Paint more lasting, handsomer, and at the same time cheaper than the best of others, but it is in a liquid form:—white and all the fashionable and most exquisite shades—ready for the brush. So that farmers, in fact everybody, can be their own painter if necessary. Indeed, all the buildings upon which the Averill Chemical Paint has been applied, are marvels of beauty.—*Christian Union.*

We know of no subject of such importance to Householders as that of a good, handsome, durable paint for their dwellings. Within the past few years we have watched the progress of the Averill Chemical Paint and have had frequent opportunities to test it fully. We think it just the article to supply the need, and give it our hearty endorsement.—*N. Y. Independent.*

From the Thousands of Testimonials sent us, we select the following, which we present for your careful consideration:

A PAINT FOR FARMERS.—Prof. J. B. Turner, Jacksonville, Ill., is a man of great practical knowledge and experience; hence, we attach a great deal of value to the following, from his pen, which we find in the *Prairie Farmer:*

"Some two years ago I sent for and got from a barrel to a barrel and a half of Averill Chemical Paint, of light dun color, which I thought would suit me well enough for all work—houses, doors, blinds, fences, bee-hives, wagons, tools and all. I put two coats upon my residence here, and run over three or four of my smaller farm houses on my farms. With what was left I painted my bee-hives, wagons, wheelbarrows, rollers, harrows, fences, etc., etc., and on all these buildings, implements, tools, gates, etc., the paint is as hard and glossy to-day, so far as I can see, as it was a month after it was put on, and bids fair to hold its own at least for five years to come, (if not ten of them,) better than ordinary white lead and oil does for even two years.

"I have watched it now for about two years with interest and care, and have never found a single spot where it peeled, cracked, or chalked off, as our other paints do. Others who have used this paint like it equally as well. But the point is, I can take one and the same keg and brush, and go over all my buildings, wagons and tools, with no needless waste of paint, brushes or time. It is quite as good for inside finish, as it leaves a coat that shines and washes like glass."—*Moore's Rural New Yorker.*

THE AVERILL PAINTS.—In reply to some inquiries of our readers, we would state that we have given these paints, prepared by the Averill Chemical Paint Company, a full trial, and they appear to possess all that is claimed for them; spreading easily, adhering well, drying soon, and imparting handsome shades of color to the surface covered. Farmers and others who do their own painting, may avail themselves of the convenience of purchasing these paints, of any desired shade, already mixed for use, at a very reasonable price.—*Cultivator and Country Gentleman.*

PLACERVILLE, October 7, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your letter I have to state that for more than six years I have dealt in and used your paint. I have during that time carefully observed its application and use, and from practical knowledge can certify to its unrivalled excellence. During my six years' acquaintance with it, there has not come to my knowledge a single instance of failure in any case where it has been used. All to whom I have supplied it unite in commending it for its superiority over all other paints now in use. The Averill Paint externally used, or, in other words, exposed to the action of the weather, neither rubs off nor changes color, as do other paints, and will retain its freshness and adhesive property for years. Pure lead and oil will in a short time become dry, and are easily rubbed off; the loss of oil leaves the lead in a dry, oxidized state. As a matter of economy the claims of the Averill Chemical Paint to popular appreciation and general use are beyond question. A house properly painted with it once will be better preserved, and present a neater appearance at the expiration of seven years, than it would if twice coated with lead and oil paints now in use. There can be no question, then, that to use it is both labor-saving and economical. So well assured and convinced am I of its established right to this distinction over all kinds, that had I fifty houses of my own to be painted, the "Averill" alone should be my choice and used.

Yours, very truly, S. J. ALDEN, Druggist.

UNIVERSITY OF CALIFORNIA, BERKELEY, August 16, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your note of the 13th inst., I willingly state that the work done by you in painting the exterior of the North Hall or College of Letters is in every way satisfactory, and the appearance of the building since it was painted excites the favorable comment of all who have seen it. As I have had occasion to use the Averill Paint before, my experience has been such that I prefer it to any and all others when properly applied. I am very truly yours, ROBT. E. C. STEARNS.

Sample Card of Colors Sent Free on Application. Be Sure and Write for One and Examine for Yourself before Buying Any Other.

CALIFORNIA CHEMICAL PAINT CO.

117 PINE STREET, SAN FRANCISCO.

HARVESTING MACHINERY,

MOWERS—Wood's Eagle, Peerless & Clipper.

REAPERS—RUSSELL'S PEERLESS.

HEADERS—Haines' Genuine Single Gear.

SEPARATORS AND POWERS.

Chicago Pitts, with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

Steam Engines.

ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

LYMAN'S SELF-FEEDER.

Invented by a practical thresher. Best in the market. Price only $150. It surpasses all others in durability and simplicity of construction. Can be applied to any Separator in a few hours, and taken off in 15 minutes. It is guaranteed to give satisfaction or no pay.

FULL SUPPLY OF "EXTRAS" FOR ALL OUR MACHINES.

Linforth, Kellogg & Co.,

Nos. 3 and 5 Front St., San Francisco, Cal.

STRAW BURNING ATTACHMENT.

KING'S PATENT.

The Only Successful Burner Yet Introduced.

Having secured the exclusive right to manufacture and attach to engines J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of the threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

MODESTO, October 9th, 1875.

MR. J. R. KING—*Dear Sir:*—We have used your Attachment on our Automatic Hoadley Engine the past two seasons; it furnishes all the power necessary to run our large Pitts Separator with a Jackson Feeder attached: it more than gave satisfaction to all the farmers for whom we threshed; it required but little straw to furnish the necessary amount of steam; our engineer had a boy to fire it, and he attended to the Separator and Engine; it was much safer than a wood burner, for when we wished to stop or move, all that was necessary was to close the door and everything was perfectly safe. We used no spark arrest, as there were no sparks to arrest. It was a perfect success in every particular. Yours, etc., BENTLY & YOUNG.

LINDEN, October 16th, 1875.

MR. J. R. KING—*Dear Sir:*—Having used one of your Straw Burner Attachments on my Ames Engine (wood burner) No. 3, I feel it my duty to state that it proved to be far more than I expected. It furnishes sufficient power to operate my large Pitts Separator. I have seen several regular Straw Burning Engines in operation, and would not exchange for any small consideration. I used it all the season without the least difficulty and know it is a success. Yours, etc., J. H. DUNCAN.

The following parties used my Attachment on their Wood Burning Engines last season: Covert & May, Grayson, Stanislaus county; W. H. Gilmore, Stockton, on an old style Hoadley Engine, 8x12 cylinder; Morse Bros., Modesto, Stanislaus county; C. F. Leavensworth, Modesto, Stanislaus county, old style Hoadley, 8x12 cylinder. On the 13th of May, at Stockton, in a test of Straw Burning Engines, a very lively competition ensued between the different styles and patterns of machinery, particularly between the two Straw Burning Engines. My Attachment claims superiority and preference over all others on account of its adaptability to all styles and patterns of wood or coal burning engines, to which it can be fitted. It has a conical feed tube or funnel, through which the straw is fed to the fire box, the interior arrangement of which is also peculiar, containing a half set of coarse grate bars standing six to ten inches high, and adjustable to any hight desired and sloping toward the front. In front of the tubes a circular concave plate is so arranged as to cause the draft to first strike the top of the boiler and then draw down behind the plate through the small flues. Engines rigged with this burner are absolutely safe from sparks, there being no necessity even for a spark arrester on the smoke stack. To show how rapidly it makes steam we add the following record of its performance on Saturday, attached to a Gaar, Scott & Co.'s portable engine: The fire was lighted with the boiler partially full of cold water, (two gauges cold,) and in 25 minutes the whistle was blown, the gauge showing a pressure of 10 pounds of steam; in 30 minutes, 20 pounds; in 32 minutes, 30 pounds; in 34 minutes, 40 pounds; in 35 minutes, 45 pounds; in 37 minutes, 50 pounds; in 38 minutes, 55 pounds; in 40 minutes, 60 pounds; in 42 minutes, 65 pounds; in 45 minutes, 70 pounds; in 47 minutes, 80 pounds; in 49 minutes, 90 pounds; in 50 minutes, 100 pounds. On reaching a pressure of 100 pounds the barley mill, to which it was attached by a belt, was started and run to its full capacity, grinding at the rate of two tons per hour; during this time steam raised to 130 pounds, pumping more than a full supply and frequently blowing water out of the boiler; then stopped firing until the steam gauge indicated 80 pounds; commenced firing again and got 140 pounds in 25 minutes; water raised in boiler to three gauges; mill run to full capacity all the time; this was a Gaar, Scott Engine, cylinder 7x13 inches; boiler, diameter, 29 inches; 27 flues, 2½ inches diameter, and 54 inches long; fire box, length, two feet eight inches.

The Attachment can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced county. Byron Jackson, Woodland, Patentee of Self Feeder, agent for Solano, Yolo and Colusa counties.

All orders addressed to J. R. King, Patentee, in care of the Globe Iron Works, or H. C. Shaw Plow Company, Stockton, will receive prompt attention. Send for Circulars.

JOHN CAINE, Proprietor Globe Iron Works.

ENRIGHT'S PATENT PORTABLE

WOOD AND STRAW BURNING ENGINES.

Patented July 20th and November 2d, 1875.

Burns Wood or Straw without change, and Coal by changing two plates. Took the Premium at the California State Fair, 1875, as the Best Straw Burner.

PIONEER BUILDER OF THE FIRST PORTABLE THRESHER ENGINE ON THE PACIFIC COAST, 1861.

PATENTEE AND BUILDER OF THE

BEST PORTABLE STRAW OR WOOD BURNING THRESHER ENGINES, 1876.

Send for Testimonials and Price to

JOSEPH ENRIGHT, San Jose, Cal.

SHERIFF'S OFFICE, SACRAMENTO, Sept. 21st, 1875.

MR. J. ENRIGHT—*Dear Sir:* The Straw Burning Engine I bought of you, and which was used in Yolo county, has given us perfect satisfaction. It is everything you represented. We have had no difficulty in generating all the steam required, and the amount of straw consumed can hardly be missed. We find it much safer, on account of fire, than a wood burner. Many persons, both threshers and farmers, have come to see it run, and all express themselves highly pleased. The opinion of all was, that it is just what we need, being safe and economical. H. M. LABUE.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early
Marblehead Mammoth
Stowell's Evergreen
Mexican Sweet, New } Sweet Corn.

Early Canada
Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel
Yellow Globe
White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO

NO AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco

RICHARDS' IMPROVED HEADER,

STOCKTON CHIEF.

This Header for stanchness of build, lightness of draft and capacity for securing fallen grain, has no equal on the Pacific Coast. The manufacturers offer it with full confidence that it will give perfect satisfaction to all who purchase and use it. Manufactured by

MATTESON & WILLIAMSON,

Corner of Main and California streets, Stockton, Cal.

See Engraving in next week's issue.

Dewey & Co. { 224 Sansome St } **Patent Agt's.**

FARMERS write for your paper.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, MAY 27, 1876. [Number 22.

Agricultural Improvements.

There is constantly coming to hand assurance that our agricnlture is taking to itself the advantage of better and more thorough cultivation and wise investment in farm improvements. This is a most hopeful indication, and we hail it with pleasure. Our agricultural connties are dotted here and there with the ranches of men who believe in doing the sqnare thing by the soil and themselves, and as the harvest approaches the snperiority which such work obtains over the slacker industry is written in living characters, which he who rides through the country may read. This is the best test of the trnth of what we and our contemporaries have written again and again of the better results which would be general if a more intelligent and thorongh cultivation were practiced. It is a practical demonstration in the field, and doctrine which will not stand such a test is worthless. We print in the Agricultural Notes this week a few items, showing what have heen the characteristics of several individuals' practice and what their harvest rewards will be.

We also hear of wise improvement and investment on our dairy and stock ranches. We hear that a nnmber of our ranchers are determined to make a trial of the economy of shelter for their animals, and are erecting barns and sheds which will be credits to their neighborhoods. This is well. It is the investment of part of the farm's earnings for the good of the farm, and the result will he more satisfactory and profitable retnrns, nnless all the teachings of experience in this direction are false. We trnst that the work will go on, and that this year of prosperity will not only leave every farmer's pocket heavier, but also will leave every farm improved and farther advanced in everything which constitntes true progress in agriculture. This will make our agriculture permanent. It will give ns something of value to leave to our children. It is a good time now to think of these things and to plan to act the thought.

Home Made Bags.—Alluding to the decision of Secretary Bristow, which we printed last week, granting drawhack on all exported hags, empty or ful', made from imported cloth, the *Record-Union* writes: "The decision should and will, to this extent, encourage local bag making factories, and to the same extent favor the price of grain. So far, so good. But why not raise onr own jnte and make our own cloth as well as our own bags? The Indias are going into the wheat husiness to compete with us in the grain markets, and why should we not show them that we can raise wheat and jnte just as well as they can raise jute and wheat? There is no natural reason why we should not, while there are many political and economic reasons why we should. Jute and wheat grow side by side in India, and wheat and jute will just as well grow side by side in California. Jute cloth factories and jute hag factories flonrish in Calcutta, and jute cloth factories and jute bag factories would flourish just as well in San Francisco, Sacramento or any other town in California."

Centennial Accomodations. — People are starting for the Centennial. We call attention in this connection to the advertisement of V. Floto & Co. in another column.

Rejoicing at Lodi.

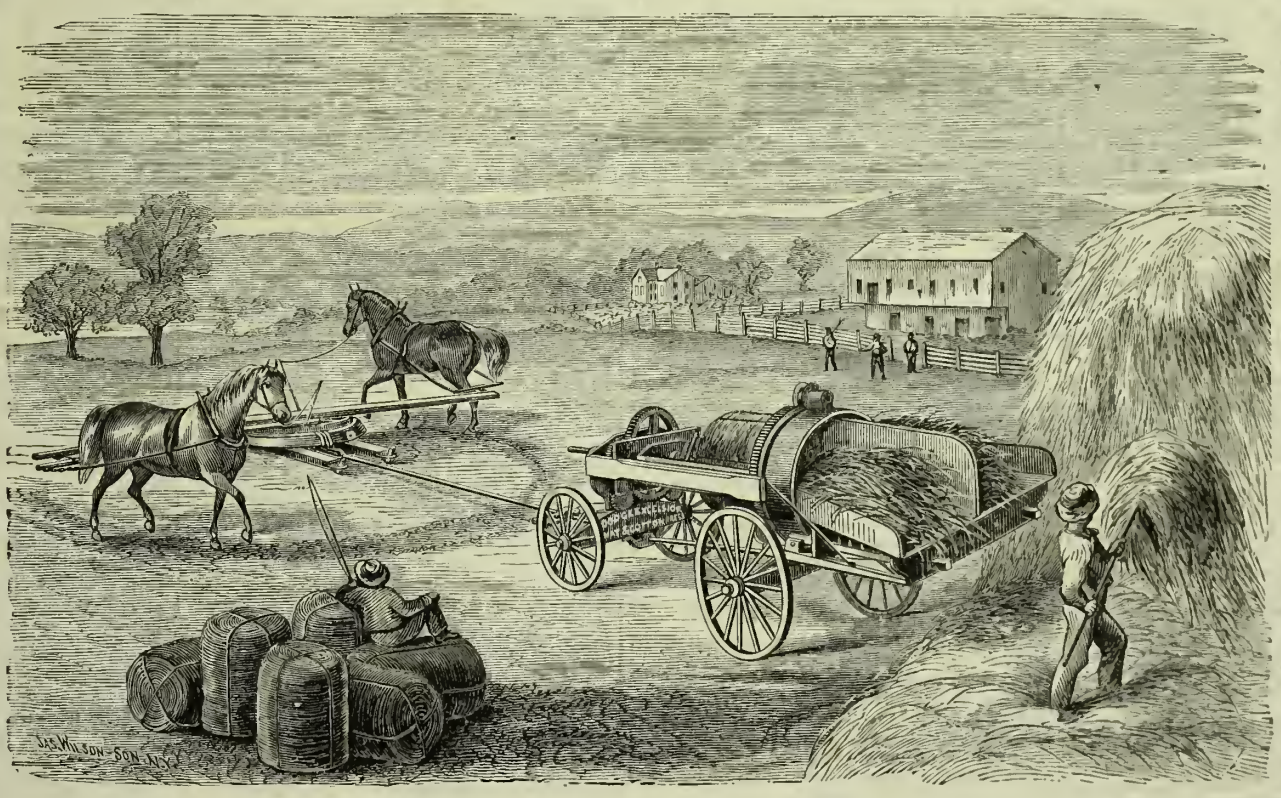
We throw np our hat in full sympathy with the hearty demonstrations of rejoicing at Lodi on Friday last. It is a grand thought that the indnstrious settlers who have heen for a score of years lahoring in good faith for the improvement and development of thousands of acres of our commonwealth should be able to invoke the stroug arm of the law to protect them in their rights against men who, on a pretext, would drive them from their homes or lay them under tribute. They have had a long fight to wage for their homes, these determined citizens of San Joaquin connty. Fighting off one grabber they have discerned another in his wake. The "Chebolla" grant and the "Los Moquelemos" grant were set aside after long effort of interested parties to establish their claims. Finally the railway ran a train of disaster through the region, and it was only last week that the victory was won in the United States Supreme Court by the settlers against the railway claimants.

One can often tell very easily where the popnlar heart is by the location of the popnlar hody. When, then, it was decided to celebrate the victory of the settlers hy a concourse and a feast at Lodi, the public interest may be inferred from the fact that from 10,000 to 15,000 people were present and took an active part in the celebration. It was an occasion which will be memorahle for generations in the traditions of the county.

We rejoice in the occasion for rejoicing. We are glad with our friends who have secured their rights, and are glad also of the success of right over the powerful agencies which were constrained to oppress. The moral effect of the settlers' victory will be good hoth for the existence and reputation of the State. We know of no thought more depressing than the driving of a community from their homes, or filling their horizons with clonds which chill all earnest and effective lahor and improvement, and when the clouds break and titles as well as skies are clear, with what a nerve and vigor the work of improvement recommences! This, we doubt not, is the feeling among the settlers whose joy hroke forth at the Lodi celebration, and we rejoice with each one as he can say, "My home's once more my own.

The Dodge Hay Press.

We present an illustration on this page which will give our readers a good idea of the Dodge hay press—a powerful portable self-feeding machine, making neat, small and cylindrical bales, ranging all the way from 50 to 350 pounds, at the will of the operator. It is nsually operated hy fonr medium sized horses, and is warranted to bale from 10 to 12 tons per day, and so compactly that 10 tons can be loaded in an ordinary freight car. The press can be operated hy sweep tread or steam power. The neatness of the hale, the power of the press and its portability on wheels, in moving from place to place, are points that commend the apparatus very strongly. We understand that the Chicago manufacturers of this machine are about to introduce it here, and that one sold to a party in San Bernardino, in this State, will he stopped here long enough to give a public exhibition of it at work. For further particulars we refer to W. J. Hanna & Co., Nos. 34 and 36 Sonth Canal street, Chicago.



THE DODGE EXCELSIOR HAY PRESS.

State Agricultural Society.—The *Record-Union* says that at a meeting of the directors of the State agricultural society, on the 18th inst., the resignation of James J. Green as a member of the board was presented, owing to his proposed departure for the East, and accepted. The board proceeded to elect a member to fill the vacancy, and chose J. P. Sargent of San Jose, President of the Santa Clara Valley agricultural society. The matter of revising the premium list for the next State fair was entered upon and all performed except that relating to the third department—textile fabrics, etc.—and that was placed in the hands of a committee consisting of Directors Mott, Green and Hamilton. Adjonrned until June 10th, at 7 P. M.

Good Crop Prospects.—The prospect at the present time for all the crops in Lake county is exceedingly good. In Scott's valley the grain is very good, and the grass is ready for haying. In Bachelor valley the grain has got a fine start, and is tending toward a bonoteous harvest. In Big valley the farmers say they never saw the crops look better, and all are jubilant over the prospects.—*Lake County Bee.*

The Value of Straw.

As our agricnlture progresses we must study more closely the economies of the industry. We cannot always afford to send off in smoke the achievement which the cereal plants accomplish in building up the stems which support the seed. It is upon the face of it a great waste of nature's productive ability. There have been conditions in the growth of our agricultnre when there seemed no escape from the straw except hy touching a match to it. These conditions may prevail still in some localities, and yet if we can devise means to use it, to turn its food valne into some marketable form, there will resnlt to the farmer an increased reward. We like to impress general suggestions hy actual experiences, and we find in the Stockton *Independent* a practical man's success in the direction of stopping the waste of the fire: We will relate the experience of a farmer two years ago on the French Camp plains. Previons to that time he had nsed fires as the most ready means of getting rid of his straw and clearing the land of what he considered utterly worthless material. For some reason, scarcely known to himself, he concluded to stack it, and went to an expense of about $7 to accomplish the work. Some time afterwards the owner of a herd of fine cattle made inquiry as to the willingness of the owner of the straw to sell it and permit the cattle to eat it on the spot. At first he concluded that if it was good enongh for another man's live stock it was equally good for his own, and so intimated to the party proposing to purchase, but the latter offering the sum of $250, a sale was at once effected. This farmer, at an expenditure of about $7, not merely preserved material which brought $250 in cash into his hands, but he considered that he was benefited at least double that amount in having his land enriched hy the cattle remaining upon it until all the fodder was exhanated. The field thus enriched exceeds 100 acres, and he considers it the most fertile land on his entire farm. He now views straw in a very different light than he did a few years ago, and has concluded to preserve every pound produced in the future for nse dnring the winter months, or when other feed for cattle is not plentiful. Harvest will soon he at hand, and farmers everywhere would doubtless find themselves gainers by stacking their straw carefully as the work of threshing the grain proceeds. Burning provender in the fall and cattle starving in winter are not to be accepted as evidence of sound farming economy.

What are Our Cork Trees Doing?—We notice hy our Eastern exchanges that the periodic excitement concerning the cork oak (*Quercus suber*) is springing up in farmers' clubs and agricultural discussions. Our Eastern friends seem to know nothing ahout the tree except the notes of its growth in foreign countries. A few years ago there was an introduction of the trees made in this State. We will thank our readers who have these trees in growing if they will favor ns with the result of their observations of them. Please give us the facts of their growth with age of trees and measurements. We wish to put a California cork into the empty hottle which symbolizes the Eastern information on this subject.

CORRESPONDENCE.

Agricultural Education in Germany.

I. Prussian Schools as a Type.

EDITORS PRESS:—Whenever we Americans discuss the comparative value of methods of education, and especially of that practical form of education which is intended to fit man and woman for success in the industrial pursuits of life, the Prussian system is always referred to as most worthy of study and imitation. Indeed, we but tell the truth when we admit that many of the improvements introduced during the past ten years or more in our American schools of every grade have been modeled chiefly after the Prussian standard.

Prussia, with her small area, only twice as large as the six New England States, not quite as large as Alabama, Mississippi and Tennessee combined, or as California alone, has more than half as large a population as the United States. In a country standing before all others in the world with regard to educational thoroughness, let us see what has been done to secure the agricultural education of those among her 24,000,000 inhabitants who must draw farm, garden, orchard and vineyard products, to the greatest extent possible, from her comparatively meager, light and long cultivated soil.

Prussia consists in all of eleven provinces, which differ greatly in size and population as they have been acquired, one after another, by conquest, treaty or inheritance. Let us first consider her institutions for what may be called her

Higher Agricultural Education.

Eight of her eleven provinces have each one academy of agriculture. The word *academy* designates in Germany an educational institute of the highest class, as high as a *university*, but devoting itself only to one especial pursuit. For example, they have academies of mining, of architecture, of painting, etc.

Westphalia and Hesse-Nassau are two of the smallest Prussian provinces, and have no academy of agriculture, probably because they can avail themselves readily of an excellent one in the neighboring Rhine Province. Posen, which is the part of Poland allotted to Prussia at the division of that unhappy country, has no such academy, and perhaps for the reason that its population, who are mostly Poles, are said among the Germans to be behind the rest of Prussia in every kind of culture. If true, this is no doubt the result of a subjection always humiliating to them, since their noted partition by crowned heads.

The other eight provinces have each one, as already mentioned, and in every province except Silesia, this academy is connected with the provincial university. In Silesia, however, it is an independent institution and is situated in the village of Proskau, near Oppeln.

The others are connected with the universities of (1) Berlin; (2) Goettingen; (3) Bonn; (4) Kiel; (5) Greifswald; (6) Koenigsberg; (7) Halle.

Besides the eight agricultural colleges, as we would call them, among the higher agricultural institutions are counted three royal veterinary schools: one in Berlin, another near Goettingen, a third in the city of Hanover. There are also two royal academies of forestry: one near Goettingen, and another at Neuwald-Ebersdorf.

These thirteen institutions, and the three following ones, are all that are included in the classification "higher agricultural educational institutes." The plan of instruction for these, as well as for the "middle" and "lower" schools for agricultural education, is strictly marked out by the Prussian government.

Besides those above mentioned, there are three higher agricultural institutes devoted to more special purposes, such as gardening and fruit culture. These are as follows:

1. Royal institute for gardeners, at Alt-Geltow and Wildpark near Potsdam, a half-hour's run by rail from Berlin.

2. Royal pomological institute at Proskau, near Oppeln.

3. Fruit and vineyard institute at Geisenheim.

Middle and Lower Agricultural Schools.

1. Not only have they these higher colleges and institutes for thorough agricultural education, but there are also in Prussia alone, to say nothing of the rest of the German Empire, fifteen agricultural boarding schools.

Of the one at Popelan, as a sample of all, a future letter will give the exact list of teachers and studies, in connection with an account of the faculty and studies of the academy or college of agriculture in Halle university. In these fifteen schools the number of teachers varies from two to eight. The average number of pupils now in attendance is from twelve to forty. Most of these are paying scholars, a few are free. Some day scholars attend, but most are boarders. The usual age at which they are admitted varies from fourteen to twenty-six, although in a few of them there are some even older. The length of their course of studies is generally one or two years. In two or three of them, like the one at Mentsic, nothing is charged for board or tuition. In others, the cost of board and tuition varies greatly, ranging from $45 to $170 gold per scholastic year. Some of them require a small amount of manual labor from their students, who are paid as wages amounts varying from $6 to $15 gold, yearly.

In another letter your readers shall have a tabulated list of these fifteen boarding schools, showing their locations, number of teachers, expenses, etc., in case any may wish to avail themselves of such information.

2. Not only have they these fifteen boarding schools, but there are some 20 agricultural schools where the pupils either live at home or board in the houses of the citizens. Their general plan is the same as that of the boarding schools. In these, the expenses of each pupil are usually very small.

3. In addition to these, there are about a half-dozen "winter agricultural schools" registered, in which there are classes, usually from November to April, for the young farmers who must work in summer. In such schools, natural history, chemistry, natural philosophy, veterinary science, etc., are taught, besides the usual branches of education for those who are deficient in them.

4. There are also at least a dozen schools for gardening and fruit culture alone. Some of these have vineyards attached to them.

5. They have still other agricultural schools for more special objects, such as (1) for rearing forest trees; (2) for the care of bees; (3) for scientific and practical horse-shoeing; (4) for care of silk worms; (5) for laying out and draining meadows; (6) for flax culture; (7) for raising tobacco and the cultivated thistle; (8) for artificial fisheries.

"Wandering Teachers," or Lecturers.

In many districts there are what they call "wandering teachers" of agriculture—lecturers, as we would call them. They are paid by the agricultural societies (of which more will be written yon hereafter) or by the government, to travel around and instruct the agricultural population in many ways.

Prussia, and indeed all of Germany, has also a species of agricultural schools not unlike the night schools in some of our cities. The Germans call them *fortbildungs-schulen*. Our name would be *adult schools*, perhaps. They are generally held at night for a few evenings in the week, or a few hours on Sunday. Of these there are many, their number not being exactly recorded. In the Rhine Province alone there are at least forty. Many of these are classed with their agricultural schools, not because those branches of science alone which bear upon the tillage of the soil are taught, but rather because they and their pupils belong chiefly to the rural districts. The subjects taught in them are varied to suit the wants of those who attend the instructions given.

Experimental Stations.

Each of the eleven provinces of Prussia has also an "experimental station"—eight of them more than one. From Dr. L. Wittmack, director of the agricultural museum in Berlin, I learn there are in all twenty-five such stations in the whole German empire. He also informs me that the funds to maintain these are furnished half by the government and half by the agricultural societies of the empire. In these, all kinds of experiments are tried with soils, fertilizers and plants, and the results are recorded. In them everything is done on the purest scientific principles and by exact weights and measures, even to the precise amount of moisture which the plants are allowed to have. To regulate the latter point with certainty, the plants are reared in boxes of suitable size, placed on wheels which run on tramways. Most of the time they are kept under glass in large conservatories, but in fine weather the boxes are run out and kept in the open air during the day time. No rain is allowed to fall upon them, because water must be applied by artificial means only in order to learn the exact amount of moisture required by different plants to yield given results.

The greatest scientific accuracy is sought and attained by these means, and the results obtained have been highly valuable in improving various branches of German agriculture.

J. W. A. WRIGHT.

HORTICULTURE.

Fertilizers for Fruit.

The *Scientific Farmer* answers the following questions from a correspondent, which may be of interest to some of our readers:

"What are the chemicals necessary to supply fruit trees, apple, pear and cherry, in bearing, to produce crops of fruit? Would young growing trees need more potash than trees in bearing?"

There are so many modifying circumstances and conditions connected with and controlling the production of fruit that the question of fertilizers is only one of many. But to answer the question directly we should say that if the soil produced thrifty growing trees, nitrogenous manures should be avoided, since such tend to develop foliage and wood at the expense of fruit. To develop fruit buds mature wood is necessary. Some slowly decomposing nitrogenous substance in the soil, like horn shavings, leather scraps, etc., would supply necessary nitrogen to the trees without forcing the growth of wood. If the wood waste our subscriber mentioned in his letter is of the same nature as the above, we think he has just the material at hand. The flesh of fruits contains much potash in combination with the fruity acids, also lime; and the seeds phosphoric acid. Therefore, we advise the application each year, per acre, of from 200 to 250 pounds of bone dust, 300 to 400 pounds sulphate of potash, the latter guaranteed to contain 35 to 40 per cent. of sulphate of potash. This would give us 70 to 80 pounds of potash, 50 to 60 pounds of phosphoric acid, and 60 to 70 pounds of lime (from the bones), 10 to 20 pounds of nitrogen, and some magnesia in the potash fertilizer, etc. Such treatment has been found successful by fruit growers in both this country and Europe. We should apply broadcast in the fall to the surface, and leave it to the rains to incorporate with the soil, or at most only harrow the fertilizer in. A ton of dry, unleached wood ashes per acre would furnish nearly the same ingredients. The same amount of mineral phosphates as mentioned of bones would furnish more phosphoric acid, but in a more insoluble condition. Prof. Goessmann is now engaged in experiments upon feeding fruit trees, grapes, etc., and we hope at no distant day to present some more interesting facts in this connection.

The answer to the second question is apparently from the preceding. Though potash is necessary to the production of fruit, and we apply it for that purpose, yet it is plain that before the tree is mature enough for such production, less potash is required than when in bearing.

THE DAIRY.

The California State Dairymen's Association.

The proposition which we have urged, and which was approved by our correspondents, has resulted in the formation of a State dairymen's association. The organization begins its work under good auspices and has the sympathy and active co-operation of California dairymen in several of our leading dairy counties. The meeting for organization was held according to announcement in the rooms of the Produce Exchange on Thursday, May 18th. As the present is an exceedingly busy season in many localities, the dairymen favoring the the movement very wisely delegated one from each vicinity to represent them in the preliminary arrangements. For this reason the number present at the meeting was rather small, but the constituency represented was very numerous.

Of those participating in the organization, either by personal assent or by delegates, we name the following:

Alameda county—Jno. A. Slantey, Chas. Webb Howard, Oakland

Marin county—A. Mailliard, San Rafael; J. A. Upton, T. B. Crandett, T. J. Whaley, A. H. Kayser, A. H. Stinson, H. Claussen, Abram Huff, Wm. N. Shafter, N. H. Stinson, Point Reyes; H. F. Taft, Thos. H. Esty, Chas. L. Esty, J. Mitchem, H. Thies, M. McNamara, B. F. Porter, D. W. Taylor, Richard Magee, John Schaub, T. H. Farley, C. Reading, Nicasio; L. W. Walker, Killam & Rutherford, Arch. Gammell, San Antonio; Joseph Davidson, Hicks valley.

Monterey county—Jesse D. Carr, Salinas; John S. Carr, Gabilan.

San Luis Obispo county—A. C. Buffington, C. H. Ivens, Cambria; R. Logan, A. Tognazzini, G. Badasci, J. Razlieppe, C. Filipponi, A. Tommi, Cayucas; H. Y. Stanley, A. D. Fairbanks, M. Tonini, Morro; A. L. Tolle, S. H. Draper, Isaac Flos, N. Nuckally, Old Creek.

Santa Clara county—E. A. Davidson, Samuel Rea, Reeve Bros., James Rea, Alexander Watson, David Zuck, S. M. Maze, R. Eschenburg, Gilroy; A. Willson, San Felipe.

San Francisco county—R. G. Sneath, H. P. Livermore, E. J. Wickson.

Sonoma county—Wilfred Page, Henry Page, Cotate; J. A. Thompson, Petaluma.

The Meeting.

The meeting on the 18th was organized by the election *pro. tem.* of A. Mailliard, of San Rafael, for Chairman, and E. J. Wickson, of the RURAL PRESS, for Secretary.

On taking the chair, Mr. Mailliard stated that the gentlemen present had come together in obedience to a call signed by a number of dairymen for the purpose of organizing a dairymen's association. He alluded to the great interests involved and noted the large number of men engaged in dairy husbandry in this State without any organization through which they could make their united influence effective for the protection and advancement of their interests, or in which they could discuss matters pertaining to the improvement of dairy practices and methods. He called upon the secretary to explain what kind of an organization was contemplated in the proposition which had been advanced.

The Secretary briefly addressed the meeting upon this point. He remarked that the great success and usefulness which had been gained by the dairy associations in the Eastern States had suggested the advantage which might be gained by dairymen on this coast by a society in which they might assemble for discussion and for united action on all matters affecting their interests. The association was a simple, open society, in which all dairymen were invited to take part. Its meetings were held for discussion of all dairy topics, from the breeding of cattle through all the processes of milk making and manufacturing to the final matter of shipping and selling the products. It was a society before which any members could bring accounts of any difficulty they had met with in any part of their business, and gain either the experience or the strength of a united body of men, according as experience or influence might be needed. It was also a society which should disseminate intelligence concerning all branches of dairying, and in which the success which any one might attain might be related, so that all might profit by it. It was, in short, an organization of dairymen for interchange of ideas and practices and for mutual action concerning all dairy matters which could be advanced by it. It was an organization which should be attended by no charge to members beyond what was necessary to defray the expense of meeting and other matters which the society should decide upon for itself.

The Chairman asked the delegates to express their opinions freely concerning the advisability of forming such an organization.

Mr. Davidson, of Gilroy, stated that he had been earnestly in favor of an organization from the time it was first proposed. He had practiced dairying in New York and knew very well the powerful influence for improvement of dairy products and protection of the interests of dairymen which the New York societies exerted.

Mr. A. C. Buffington, of San Luis Obispo country, stated that he had been sent as a delegate from a large number of dairymen of his country who felt that an organization of this kind was necessary for the protection of their business interests. He hoped the delegates would proceed at once to form an organization and call a regular meeting at a convenient time when all dairymen can attend and become acquainted with each other and work together.

Mr. Walker, of San Antonio, said that the project was very valuable to all in the dairy interest, and it would require a large hall to hold all dairymen who wish to unite for the purposes named by the other speakers. He advised that the society be established at once.

Other gentlemen present spoke in a similar earnest way concerning the usefulness of the contemplated society.

On motion committees were appointed to draft articles of association and a list of officers for the society. The meeting took a brief recess to await the result of the deliberations of the committees. The Committee on Organization reported the following:

Articles of Association—Preamble.

Believing that an organization of California dairymen will be useful in devising measures for the promotion of the dairy interests of the State, valuable for improving dairy methods, practices and appliances, and effective in securing to dairymen increased profits, by gaining more equitable rates of transportation, better care of the product in transit, and less oppressive charges generally in marketing, we unite in organizing a dairymen's association, in order that we, as dairymen, may act together for our good and that of the industry in which we are engaged.

Constitution.

ARTICLE I. This association shall be known as the "California State Dairymen's Association."

ART. II. The officers of this association shall consist of a President, as many Vice-Presidents as may be deemed advisable, a Secretary, a Treasurer, and an Executive Committee, of which the President, Secretary and Treasurer shall be members *ex officio*.

ART. III. These officers shall be elected at the annual meeting, and shall hold office until their successors are chosen.

ART. IV. There shall be held an annual meeting of this association beginning on the first Wednesday of the month of October, at such place as the association by vote at a previous annual meeting shall designate. There may be held special meetings at such time and place as the Executive Committee shall designate.

ART. V. It shall be the duty of the President to preside at all meetings of the association, and to serve as chairman of the Executive Committee. It shall devolve upon any one of the Vice-Presidents, whom the meeting may select, to preside in the absence of the President. It shall be the duty of the Secretary to keep record of the transactions of the association, to keep a roll of members, and to notify all members by mail of the times and places of meeting. It shall also be the duty of the Secretary to receive and preserve the correspondence of the association. It shall be the duty of the Treasurer to keep the funds of the association and to pay claims which shall be approved by vote of the Executive Committee. It shall be the duty of the Executive Committee to arrange the time and place of meetings and to select speakers to address the association upon subjects of dairy interest. The Executive Committee shall also serve as a Board of Audit upon all claims against the association.

ART. VI. All members of this association shall be elected by a majority of those present at a regularly called meeting, and shall pay an annual fee of three dollars to meet the expenses of the association.

The above articles were read one by one by the Secretary, and adopted by vote of the meeting.

Officers.

The committee for the nomination of officers reported the following list to serve until the October meeting:

President—A. Mailliard.

Vice-Presidents—A. C. Buffington, J. R. Rose, George W. Steele, E. A. Davidson, J. McM. Shatter, Francis De Long, Jesse D. Carr, Henry Clanssen.

Secretary—E. J. Wickson.

Treasurer—Henry Page.

Executive Committee—L. W. Walker, O. L. Reeves, H. Y. Stanley, Carr Abbott, Isaac Steele, A. Willson.

The report of the committee was adopted and the above officers were elected to serve until the election at the annual meeting which is provided for in the articles of association.

It was suggested that every dairyman be invited to prepare himself to take part in the sessions in October, either with a general report of the extent and condition of dairying in his neighborhood, or to speak upon some special point in dairy practice according to the experiments or observation. It is to be hoped that each one will come prepared to take an active part in the new movement, and point out di-

rections in which it can work for the advantage of dairy producers.

Mr. Davidson informed the meeting that he was making preparations to box his own cheese each one by itself, as is done at the East, thereby ensuring its coming to market in a more cleanly and handsome condition.

On motion, the thanks of the meeting was tendered to the Produce Exchange for the privilege of their rooms for the afternoon.

The association adjourned to meet at the annual meeting on Wednesday, October 6th, at such place as shall be hereafter publicly announced.

The Secretary will be pleased to receive the names of all dairymen who may desire to join the association or who may desire further information concerning its objects and purposes. He wishes to make a full list of those who desire to take part in the movement, in order that they may receive the full programmes for the October meeting. These programmes will doubtless be issued early, so that all may have time to prepare to express themselves on the subjects which will be proposed for discussion. Address E. J. Wickson, Secretary Cal. Dairy Association, care RURAL PRESS, S. F.

SHEEP AND WOOL.

The Weight of Burrs.

The *Live Stock Journal* for May contains the following communication, and comments upon it:

I am sorry we did not get a full report in regard to the "Big" California fleece, as there is a difference of opinion as to the weight of burrs the fleece contained; and as the fact can never be ascertained, it occurred to me that you would like to know about how many burrs, by measure, it would take to weigh two pounds. I have carefully weighed two pounds, and then measured them, and found them to measure nine quarts. A sample of burrs please find enclosed. They may not be the kind the fleeece contained, but they are the kind found in the Western States this side of the mountains and in some parts of Texas.—R. D. NESMITH, Johnstown, Pa.

The above pretty clearly explains itself. The opinion was expressed in these columns, when the report was published, that the estimated weight of burrs was largely beyond the correct figure. The burrs sent us with the above letter are not the same as those found in the California fleece. The former are the common cockle-burr, too well known to the farmers of the Middle and Western States. Those in the California fleece were what is known as the clover-burr—really the seed pod on the top of the ripened clover found wild in many portions of the Pacific slope. The comparative weight of the two cannot be very far apart for a given quantity by measurement. If the same, the weight of burrs in the California fleece would more properly have been placed at half a pound than at the estimate of the committee.

From another standpoint, the experiment of Mr. Nesmith is of value to the wool growers of the country. So far as we are aware, it is the first authoritative admission from the manufacturers of the small additiou to the weight of fleece afforded by burrs. A very common practice with buyers has been to deduct from 10 to 20 per cent. from the value of wool full of burrs, when the fact is, as shown by Mr. Nesmith, that no such proportiouate weight is added in consequence of their presence. Practically, the quantity of burrs found in fleeces—leaving out exceptionable cases—adds nothing to the weight worth taking into account. The only damage is found in the labor and loss of wool involved in separating them. With the improved machinery now employed, this is neither tedious nor expensive. No wool grower will allow his sheep to pick up burrs when it is possible to avoid it. The inconvenience of handling them would prompt him to the exercise of caution in such particular, if there were no other reasons to be found. But, despite all his care, burrs will often be found. In such instances, let him remember that it requires four and one-half quarts of burrs to weigh a pound, and see to it that the buyer does not make him pay too dearly for the misfortune of a few burry fleeces in his clip of wool.

BEES.

The San Diego Honey Interest.

Dana C. Pearson, correspondent of the *Resources of California*, has lately been examining the honey interest of San Diego. He writes as follows: From Mr. J. S. Harbison, the pioneer bee man of Southern California, and probably the most scientific and best apiarian in the country, we gathered the following facts: He took the first bees into this county in the fall of 1869, and the six last years have developed this important industry to an almost incredible extent. One year ago we reported the number of stands in the county at 10,000. Now there are, to begin this very promising season with, not less than 14,000 hives of bees in the county. After getting back 20 to 30 miles from the coast, the country is quite broken and hilly, approaching to mountains; almost every ravine affording a little stream, the hills are covered with bushes loaded with blossoms much of the time, and the whole country is covered with white sage—the best bee feed in the world. From this line back for 60 miles or more, the bee men have settled in every little nook where water and other facilities are afforded to establish an apiary, and this is soon to become the greatest honey producing section, perhaps, in the world. The honey produced here excels all other found in Eastern or Western markets, being clearer and more beautiful in appearance, and freer from that harsh, strong taste usually experienced in eating this luxury of our table. The propagation of bees here is wonderful. If left to themselves and facilities afforded, they will increase to an incredible extent. We have heard of eight stands increasing to 81, and another case of five stands increasing to 54, in one season. Mr. Chas. Fox, in the city, said to us: "About 17 months ago I selected a nice place, 50 miles from here, for my apiary. I had 60 stands of bees, and although a poor year I realized four and one half tons—8,100 pounds—from them. I expect 10 tons this year from my apiary. When I located there were only two families within four miles of me, now our neighborhood contains 12 families, in all 80 people. We expect to sell $30,000 worth of honey from our apiaries this year."

Mr. W. J. M. Clark, of Poway valley, realized from one stand of Italian bees in the improved Harbison hive, three and one-fourth cases of comb honey—238 pounds, and 48 pounds of strained honey. Total pounds 286, which he sold for $39.06.

Mr. Harbison, in 1874, sold 75 tons—150,000 pounds—of honey from 800 stands. He has shipped in one season eight car loads to Chicago. Last year was a poor honey year, and he turned his attention to propagating scientifically. He has for six years been studying how to control the swarming of his bees, to prevent the increase when he wishes to, and he believes he has succeeded. He has patented his theory and has full confidence in his success, adding so much to science and practical art in this great and growing industry. This has cost him $2,000.

If this industry offered nothing more than to furnish snug little homes, as it does, for hundreds of families, with usually a rich garden spot and a little fruit orchard, it is important, but in addition to this, their apiaries are very profitable. Mr. Harbison has six apiaries, numbering 2,000 hives of bees. He has considerable land at each place. At his Sweetwater apiary he has 360 acres. He is there farming 30 acres. He farms in all 200 acres. He has 800 fruit trees planted. His young trees last year made a growth of six to eight feet.

The honey product of this county in 1875 (a poor year) was 528,390 pounds, as near as we could ascertain from the shipping books and other sources. Mr. W. W. Stewart, President of Chamber of Commerce, puts it at 550,000 pounds.

PARASITES ON BEES.—At the last meeting of the St. Louis Academy of Sciences, Prof. C. V. Riley, the president, read a communication from G. W. Barnes, of San Diego, Cal., in relation to parasites found upon bees in that State. The parasite was described as the color of a flaxseed, and easily distinguished by the naked eye. It appears usually under the wing of the bee, and adheres with considerable tenacity. It occasionally crawls all over the bee, and is quite agile in its movements. The bees afflicted with the vermin become agitated and move rapidly over the comb, frequently dying of injuries. The parasites were first noticed there last year, and have again appeared this season, giving considerable trouble in large apiaries. Specimens of the insects afflicted accompanied the letter, and Prof. Riley said the parasite was the larvæ of the blister beetle. It was well known that these larvæ attach themselves to bees and were thus carried into the hive, where they usually left the grown bee and attacked the larvæ. Prof. Riley had not before heard that these insects injured the fully developed bees. The information was valuable, if reliable.—*Rural World.*

USEFUL INFORMATION.

The Art of Skeletonizing Leaves.

A writer in *Land and Water* says: The subject having excited a little interest among some horticulturists lately, owing to the exhibition of some beautifully executed samples at some of the large provincial exhibitions held in the northern and midland counties of England, I took the liberty of appealing to a lady friend, who has been very successful as a skeletonizer of foliage, requesting her to favor me with the *modus operandi* by which she produces her specimens with such perfect completeness.

My informant states at the outset that the art of skeletonizing leaves and flowers would be found much less difficult of accomplishment were the nature and character of the various plants thoroughly studied at first. This is no doubt a very important matter. For instance, it would be but a poor direction to the learner to say, "Gather the leaves on a certain day," unless proper attention be also paid to the leaves chosen. They must have reached a certain degree of maturity, neither too old nor too young; and as all leaves do not reach this maturity at the same time it is obvious that care must be taken that each kind must be gathered when fit for use. The leaves of the magnolia, for instance, may be gathered when the plant is in bloom, varying in time from June till August. They will require from a month to six weeks' time to be well immersed, and so be easy to dissect, as the fiber is so strong. The leaves of the ivy rank among the most difficult, and, because of the peculiar beauty of the fiber, will amply repay the trouble involved in the preparation. These may be immersed from the beginning of May to October, but should be leaves of the previous year's growth. All leaves will not answer for dissecting, but those that have been most successfully operated on are from the magnolia, ivy, pear, rose, holly, orange, poplar, willow, elm, lime, service tree, Spanish and horse chesnuts and the oak. The leaves of the last named should not, however, be put into the same vessel with the others, as it affects them in an undesirable manner. Seed vessels may also be dissected in an admirable manner; such are those of the stramonium, winter cherry, poppy, etc.

To procure good specimens, put the leaves into a deep jar and cover them with soft water, which must not be changed; the jar is then to be put in a cool place. When, upon examination, the leaves are found to be soft, they must be carefully brushed in a weak solution of chloride of lime for a short time, to whiten the fiber, and afterward washed well in two or three waters and dried carefully between sheets of blotting paper or linen, after which they are ready for mounting. To make stems for this purpose, thread stiffened with gum is the most useful, and it has a natural appearance. The leaves may be formed into bouquets or wreaths, according to the taste of the operator, and should be placed under glass shades to preserve them from harm.

I have seen groups of leaves so prepared that formed acceptable table ornaments in sitting and drawing rooms; and it suggests a pleasant employment for the fair sex with which to fill up moments of leisure. It is evident that much discrimination in the selection of the right leaves is required, and a light and careful manipulation is also essential; and in the case of failure from the first attempt, no small amount of patience is needed to carry the operation through to ultimate success.

ARBORICULTURE.

The Sanitary Value of Forests.

A writer in the *Christian Union* makes the following good points in favor of forests: Careful consideration of a few well known general principles of forest culture will show that in the very nature of the case it cannot be otherwise than that it has, and ever must have, a tremendous bearing on the subject of public health.

The health, not only of man but of the brute creation, is seriously damaged by the frequent, sudden and great changes in the climatic conditions always and necessarily incident to regions injudiciously stripped of trees. Plant life suffers with them also, and to such an extent that the zones of some of our most valuable fruits and cereals have moved in some longitudes from one to three degrees of latitude to the southward.

We put a single forest leaf under the microscope, and dissect and examine it with scientific accuracy and thoroughness, and we find in many of the common species tens of thousands of pores entering into its structure. Some trees requiring the occupancy of less than a twentieth of an acre bear on their twigs and branches four or five acres of this marvelous leaf surface. A shelter belt of a few thousand acres of such trees standing to the windward of a city, or between it and some source of miasma, presents millions of acres of nature's apparatus for absorbing excess of moisture, and exhaling it at times when the opposite conditions prevail. It is an apparatus well adapted to contending with malaria, which plants the seeds of disease and death broadcast and by the wholesale. An apparatus also, which lays a potent though gentle hand on the "chill wind out of the sea," tempering both it and the fiery blasts which are its allies in scourging poor mortals with the most destructive extremes of temperature.

Extensive, elaborate and scientific observations and experiments by students of forestry in France, Germany, Italy and everywhere in Europe, have demonstrated that judicious arboriculture is among the most practical and powerful agencies to grapple with those fertile causes of disease, the irregularities of temperature and moisture, and the "pestilence that walketh in darkness." Nothing in vegetable physiology is better established than that its chief source of food inhaled from the air is the carbonic acid gas so deleterious to animal life; and that in return a vast volume of vitalizing oxygen is exaled by the foliage for the sustenance of animal life. Hence it is certain that in suitable proportions and positions trees afford beneficent protection from our unseen enemies in the air.

By their active mechanical action in checking the rush of the air currents, it is also evident that trees must be powerful aids in the prevention of the evils resulting from the sudden movements of great bodies of cold air from the north, or warm air from the south. To check them is provisionally to guarantee relief from those convulsive changes of temperature which are so fruitful a source of the lung and bronchial difficulties so prevalent and powerful among the inhabitants of our Northern and Middle States. These changes not only increase the number and malignity of attacks of diseases long known to medical men, but more than aught else produce new ones. They are among the chief producing causes, too, of new as well as old and comparatively well understood diseases of horses, cattle and sheep. The narrowing of the winter wheat belt and of the fruit zone so as to reduce their areas by millions of acres is still another result of these irregularities where the wild winds hold high carnival over regions denuded of forests.

The healing and soothing influence of the aroma of the conifera upon those affected with consumptive, catarrhal, asthmatic and throat difficulties, is another very important count in the case at issue. The census maps show with admirable distinctness the regions where such diseases are especially prevalent (see part 3, Walker's Statistical Atlas); and it is startling and significant to find New England, once so grandly rich and beautiful in her robes of evergreen, the most terribly scourged in those respects of any portion of our country, and probably of the world—not that this is wholly due to the destruction of forests, but the increase in these diseases is out of proportion to the increase of population.

HOW TO TREAT THE BLACK WALNUT.— As there is being something done on this coast in growing the black walnut, we give early advice concerning the proper way to treat the nut. We find the following in a letter by J. H. Creighton to the *Gardeners' Monthly:*

Our native black walnut (*Juglans nigra*) is hardly ever treated right, and is when rightly preserved one of the best of all nuts. It is commonly left too long in the hull after it is ripe. Sometimes it is allowed to lie for a long time on the ground in its thick moist hull till the kernel goes through a kind of change that makes it not only unpalatable, but unhealthy. Hence, a great many persons have an idea that this nut is strong, and hard to digest. But it should be gathered immediately after it is ripe, and not allowed to remain in the hull. It should not even be allowed to remain on the tree till it falls itself, but as soon as the kernel is ripe take it off and *dry it quick* and it is a very different nut from what is commonly found. The kernel is white and delicious, no strong flat taste, and has a delicate flavor that is hardly surpassed by any nut. And then when thus treated, there are little cracks in the hard shell that make it easy to crack out the kernel. These little cracks are formed by the sudden drying.

Lawful Fences.

It is an old adage that good fences make good neighbors. To assist in accomplishing that desirable object, we print the full text of the new law on that subject, passed at the recent session of the Legislature, as it affects a large portion of the State.

It is entitled "an Act to provide for constructing Division Fences."

SECTION 1. When two or more persons own land adjoining, which is inclosed by one fence, in either the counties of Sacramento, Solano, Sutter, Yuba, Butte, Contra Costa, and in that portion of San Joaquin county lying and being north and east of the San Joaquin river, Amador, San Luis Obispo, Santa Barbara, Ventura, Tulare, El Dorado, Tuolumne, San Mateo and Nevada, and it becomes necessary for the protection of the rights and the interests of one party that a partition fence should be made between them, the other or others, when notified, shall proceed to erect, or cause to be erected, one-half of such partition fence; said fence to be erected on, or as near as practicable, the line of said land. And if, after notice given in writing, or after determination of the viewers, as provided in section six hereof, either party shall fail to proceed to erect, or cause to be erected and completed, within six months' time thereafter, one-half of such fence, the party giving the notice may proceed to erect, or cause to be erected, the entire partition fence, and collect by law one-half of the costs of such fence from the other party, and he shall be entitled to a lien upon the land thus partitioned, as provided in section one of an Act entitled an Act amendatory of and supplemental to an Act entitled an Act concerning lawful fences, approved April 3d, 1860.

Sec. 2. Lawful division fences are described as follows:

First—If made of stone, four feet high, three feet base, and one foot thick on the top.

Second—If it be worm fence, the rails should be well laid and at least five feet high.

Third—If made of posts and boards, the posts must be set well in the ground, not less than eighteen inches, and not wider apart than eight feet. If intended to turn all stock it shall be at least five six-inch boards, or four eight-inch boards high, or four boards high, with a ditch embankment equal to one board, or four six inch boards high with a wire on the top; the boards to be six inches wide and one inch thick; the top board to be four and one-half feet from the ground; the spaces well divided, and the boards securely nailed to the posts. If intended, as by mutual agreement in writing, a lawful fence to turn only neat cattle, horses and mules, a three-board fence shall be deemed sufficient; the bottom board to be two feet from the ground.

RAILROAD COMMISSIONERS.—Governor Irwin has appointed General Geo. Stoneman, of Los Angeles, John T. Doyle, of San Mateo, and Isaac W. Smith, of San Francisco, railroad commissioners under the O'Connor law.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

Worthy Master's Rulings.

Eligibility to Membership.

T. W. Whittington, Secretary Guenoc Grange, Lake County—Dear Sir and Brother:—Your favor of May 1st came into the office while absent from home, consequently my answer has been delayed.

In regard to admitting mechanics into the Grange, I will say that Ruling No. 110, "Parliamentary Guide," is very explicit on this subject, and in the following words, to wit: "Interested in agricultural pursuits," and "engaged in agricultural pursuits," as used in the constitution and resolutions of the National Grange, means that a person must be engaged in agriculture to a greater extent than in any other business, or in other words, his leading business must be agriculture, in order to be eligible to membership in the Grange. Yours fraternally, J. V. Webster,
M. S. G. C.

Conflicting Laws.

The Constitution of the National Grange is the supreme law of the Order of the Patrons of Husbandry, and wherever the Constitution of a State Grange conflicts with the provisions of the Constitution of the National Grange, it is void. Therefore, Sec. 3, Art. 7, of the California State Grange Constitution is void, because it is in conflict with Sec. 2, Art. 7, National Grange Constitution, which makes it the duty of the Secretary of each Subordinate Grange to report quarterly to the Secretary of the State Grange the names of all persons initiated during the quarter, and pay to the Secretary of the State Grange one dollar for each man, and fifty cents for each woman initiated during the quarter. Also a quarterly due of six cents for each member; said report to be approved by the Master of the Grange, and forwarded at the first session of the Grange in each quarter. J. V. Webster.
May 19th.

Fruit for the Centennial.

The Centennial Committee of citizens who have been laboring industriously to secure a proper representation of California productions at the Centennial, have so far succeeded that they can set apart a portion of their funds for the expense of showing agricultural products. In view of this fact, Temescal Grange, at its last meeting, adopted the following preamble and resolutions:

Whereas, The Centennial Committee of California have agreed to place at the disposal of the farmers and fruit growers of the State at least $1,000 of the funds collected for defraying the expenses of exhibiting the products of the State at the Centennial, therefore be it

Resolved, By the members of Temescal Grange, that the farmers and fruit growers of California should avail themselves of this opportunity to make a creditable display of the agricultural and horticultural products of the State by sending the best samples of our cereals and fruits through the Grangers' Business Association of California, to be forwarded by the manager thereof to the proper Centennial agent at Philadelphia for such exhibition.

A. B. Dixon, Sec'y *pro. tem.*

Oakland, May 20th, 1876.

Election of Officers.

Marysville Grange, No. 146, Marysville, Cal.—Thomas Filcher, M.; John Barrie, O.; Charles Cauthson, L.; Robert Miller, Sec'y; J. Hollister, C.; E. Van Vrankin, T.; C. G. Bockius, S.; G. F. Kelser, A. S.; Peter Gross, G. K.; Mrs. E. B. Durffee, Ceres; Mrs. L D. Kelser, Flora; Mrs A. W. Sewell, Pomona; Miss Maggie Miller, L. A. S.

The Encampment.

We print on this page an illustration of the Elm station encampment, near the Centennial grounds, to which Mr. Ewer referred in his letter last week. It was erected and will be conducted under the auspices of the Patrons of Husbandry, but its doors are open to all reputable citizens who desire good, comfortable quarters at reasonable rates. We give below full information concerning the encampment and the rules which will be observed in its management.

Private letters which we receive from Mr. Ewer assure us that the accommodations which he finds at the encampment are good and comfortable, and he can recommend them to all comers from the Pacific coast. As we receive such surety of the quality of the enterprise we are pleased to give full details of it for our readers.

The Official Announcement.

The management of the Centennial Encampment Association beg to announce the completion of the largest summer hotel building in the world, containing over 1,200 rooms, and capable of comfortably entertaining from 3,000 to 4,000 persons daily. This project has been specially designed for the accommodation of members of the Order of Patrons of Husbandry, Agricultural Societies, Farmers' Clubs, Sovereigns of Industry, Temperance Organizations, and kindred societies, with their friends, who purpose visiting the great Centennial exposition at Philadelphia, individually or in bodies. The buildings are 496 feet in length by 450 feet in depth, situated on a good elevation at Elm Station, on the Pennsylvania railroad, 10 minutes' ride from the entrance of the Exposition Grounds, affording a healthy location, pleasant promenades, romantic and picturesque scenery.

The rooms are each furnished with a new double bed, (mattress and springs,) chairs, table, wash stand, ewer and basin, and a mirror,—the walls are neatly papered and the doors provided with a lock and key. The building is lighted with gas, and well ventilated, and the rooms, with the exception of 100, are located on the first floor, conveniently connected with the offices, dining rooms, wash rooms, closets, etc. Rooms *en suite* to any number for families and parties, and apartments for ladies unaccompanied by gentlemen.

The reception, promenade and sitting rooms are large, pleasant and convenient.

The dining room is 320 feet in length and 80 feet in width, capable of seating 1,000 guests at a time, without crowding. It is under the management of Brothers Jones & Phillips, of Grange No. 198, North East, Erie county, Pa.—gentlemen of character and ability, who may be depended upon to furnish their tables with an abundance of the best provisions the market will afford, as well as all the delicacies of the season. They have engaged the services of Mr. Z. Martin, of Titusville, Pa., who has had 30 years' experience as caterer and manager at popular summer resorts. This department will therefore be unsurpassed by any hotel in Philadelphia or vicinity.

On the grounds are located offices of the Western Union telegraph company, Adams express, Pennsylvania railroad baggage and ticket offices, U. S. post-office, and every convenience and facility for the transaction of business or the sending of news.

Laundry work, under the supervision of competent parties, will be done at reasonable prices

A large hall, 80 by 100 feet, has been provided, in which Grange and society meetings, lectures, entertainments, etc., will be held frequently, and every effort will be put forth to make this feature attractive and enjoyable to guests during the time of their sojourn at the Encampment. The hall will be used for religious services on Sabbaths.

Lawful business of every description will be conducted on the grounds.

No intoxicating liquors sold on the premises, and the Board will see that this regulation is strictly carried out.

For the convenience of the guests at the Encampment, trains of the Pennsylvania railroad will leave and arrive at the grounds every half hour, carrying passengers to the new Pennsylvania railroad depot, at the entrance of the Exhibition, in less than one-seventh the time it would require from Ninth and Chestnut streets, Philadelphia, for the moderate charge of 15 cents a round trip.

Hourly trains to and from Philadelphia will accommodate those wanting to visit the city, day or night. These railroad arrangements are a decided advantage over street passenger railway cars, as it requires at least 45 minutes' time to run from Ninth and Chestnut streets to the exposition grounds, while guests at the Encampment will be carried from their hotel to the exposition in 10 minutes, and not be subject to the disagreeable inconvenience of over-crowded street cars.

A competent police force, watchmen, a fully organized fire brigade, safes for the deposit of money and valuables, accommodating clerks and attendants have been appointed and provided, so that the comfort and safety of all who visit the Encampment will be assured.

Good spring water will be pumped into a large reservoir and conducted by pipes through the buildings, for cooking and drinking purposes, and hose connections arranged for immediate service in case of fire.

A comfortable building has been erected in a pleasant and retired portion of the grounds for hospital purposes, and placed under the care of a competent physician. Should any of the guests be so unfortunate as to become ill while at the Encampment, they may rely upon being well cared for.

Several of the managers of the association will be on the grounds from the time of opening the Encampment until the close of the season, and every effort will be put forth to insure the comfort, convenience and safety of guests.

While this association has been organized for the benefit of the Patrons of Husbandry throughout the United States and Canada, and the entire Board of Managers are members of the Order, it is not intended to exclude persons from the Encampment who are not members of the Order. On the contrary, entertainment will be open to Sovereigns of Industry, agricultural societies, temperance organizations, Masonic, Odd Fellows, and Mechanics' lodges, etc., and to all persons of good moral character, who bring recommendations with them from officers of National, State or Subordinate Granges, councils, lodges, or societies, or the members of those organizations in their respective localities.

As it is the intention of the Board of Managers to exclude, as far as possible, all persons of improper character, they earnestly request all their guests to bring with them their trade cards, certificates of membership, or letters of recommendation, and to introduce no friend into the Encampment who does not bear a fair moral record at home. These precautions are taken for the safety and benefit of the guests themselves. Terms: Rooms (double-bed), per day, $1; meals, each, 50 cents.

Tickets for rooms and meals will be sold at the Treasurer's office, in the Encampment building. Guests will not be required to pay for meals they do not get.

The restaurant department will sell cheap lunch packages, neatly put up, for the accommodation of those who desire to visit the Exposition grounds and remain there all day. Every precaution will be taken to prevent imposition on our guests, both at the Encampment and the Exhibition grounds.

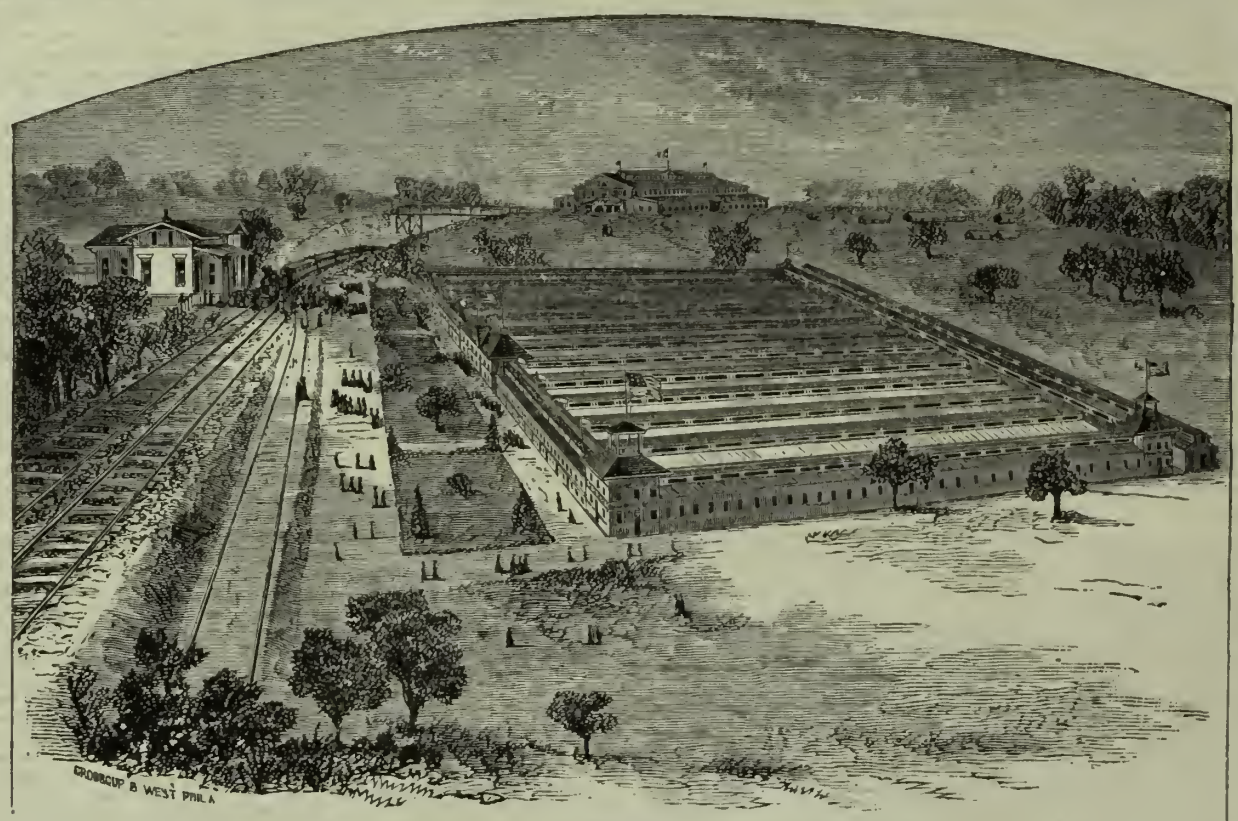
Rooms may be secured in advance by giving 10 days' notice to the Secretary of the Association. Individuals and Granges holding stock in the association will have preference in the engagement of rooms when the Encampment is crowded.

The stock books of the Association will remain open until about the first of June, and subscriptions received at par value—fifty dollars.

Certificates of stock will be received at their face value, in payment for boarding and lodging at the Encampment.

Letters containing subscriptions to stock, engagement of rooms, or asking further information, will be promptly attended to and acknowledged, if addressed to

R. H Thomas, Secretary,
Farmer's Friend office, Mechanicsburg, Pa.



THE CENTENNIAL ENCAMPMENT AT ELM STATION.

Amendments.

Ruling No. 85 has recently been amended by the Executive Committee of the National Grange so as to read "Any member of the fifth degree can install officers of a Subordinate Grange."

Rulings.

(1.) When there are a number of members at either gate applying for admission at the same time, it is necessary that each one should give the signal.

(2.) The Secretary of a Grange cannot cast the vote of the Grange in favor of any person or thing if any member objects.

(3.) A Grange undoubtedly has the right to take up a new candidate at any time during the election, and if he or she, (as the case may be,) receives a majority of all the legal votes cast, there can be no question as to the legality of such an election.

(4.) A member of a Subordinate Grange cannot hold two offices at the same time. The amended Constitution of our State Grange reads, Art. 6, Sec. 3, "No person shall hold at the same time more than one office, provided for by this Constitution."

It is necessary for all officers to be installed before assuming the duties of office. No. 33, new decisions of the Executive Committee, National Grange, reads, "All officers of a Grange must be installed before assuming the duties of his office."

From the Granges.

San Jose Grange Anniversary.

Editors Press:—The third anniversary of this Grange was celebrated by a basket picnic at Cook's grove, Saturday, May 13th. The speaking and other exercises drew out a great many Grangers and their invited friends.

The following programme was admirably carried out, Brother Cyrus Jones acting as Master of ceremonies:

Music by the band; Prayer by Brother Dohbin, of Santa Clara; Song, "The Patrons' Standard," by the Grange choir; Reading of the Declaration of Principles, by Sister Josie Settle; Song, "The Right is Marching On," by the choir; Address by Brother Ezra S. Carr; Song, "Tramp, Tramp, Tramp, the Grange is Marching," by the choir; Music by the band.

A general dive was now made for the lunch baskets and the good things found there disposed of with right good will. After which dancing was in order for the young folks, and social reunion for the older and staid ones.

Our Grange is in a flourishing condition socially as well as financially. Our meetings are made attractive with singing and select reading. Our Worthy Lecturer is always prepared with something of interest to read before the Grange at times not otherwise occupied, and last, but not least, we have a paper, "The Granger Tribune," which is read once a month and contains articles which are really of merit, poetry as well as prose, contributed by members of the Grange.

H. G. Keesling, Sec'y.

Alhambra Grange.

Editors Press:—Alhambra Grange recognizes the Centennial glories that are about us, and feeling that we, as a body at least, are denied a Centennial trip, are going to treat ourselves and friends to a Centennial trip-ping "of the light fantastic toe!" As co-operation is our watchword, our mazy dances will be a co-operative move to the time of good old calico dresses; so we will have a Centennial Co-operative Calico ball on Friday evening, June 2d. To those bewailing "the good old Colony times," we say come, be with us, and see if the many-ruffled and voluminous calico gowns of our matrons and lassies do not cover as generous hearts and willing hands as did the scant folds of our grandmothers' robes of one hundred years agone.

We want a piano in our Grange work-room, and we hope almost, if not quite, to dance one, a good one too, into our hall.

Friends everywhere, Patrons from far and near, together with the Rural Press, will be warmly and fraternally welcomed by Alhambra Grange. Mas. M. B. Lander, Secretary.
May 21st, 1876.

[Just Issued.]

The "California Patron,"

Printed under the control of the Executive Committee of the State Grange of California.

Published on the middle Wednesday of each month. Subscription (invariably in advance), 50 cents a year.

Editors: J. V. Webster, W. M., C. S. G.; Amos Adams, W. Sec'y, C. S. G.; Thomas H. Merry, General Deputy.

Communications for publication should be addressed to "Editors *California Patron*, No. 40 California street, San Francisco." Business communications should be addressed "*California Patron*, box 2361 (or to No. 224 Sansome street), San Francisco."

Masters, Secretaries and Lecturers of all Granges are authorized to receive subscriptions and remit the same by registered letters or postal orders at our expense.

A free copy will be sent to every Patron who sends us payment for ten or more copies. Subscriptions and advertisements will be received at the office of the Secretary of the State Grange of California, Room 6, No. 40 California street, and at the office of the *California Patron*, No. 224 Sansome street, S. F.

The following is from report of the Executive Committee meeting, April 4th:

"On motion of Brother Thompson it was resolved that the *California Patron* be published by Bros. A. T. Dewey and W. B. Ewer, provided that satisfactory arrangements can be

made with them. But if not satisfactory, then the W. M. is hereby authorized to make the most advantsgeous arrangements possible, provided that in so doing no expense shall attach to the State Grange. Adopted."

Agricultural Notes.

California.

ALAMEDA.

Erratic Bees.—Washington *Independent*, May 20: Some two weeks since a swarm of bees settled in the chimney of H. Crowell, Esq., of this place, and would not leave until forced out by fire and smoke. This week a like swarm, possibly the same bees under new circumstances, are to be seen burrowing into the ground in the middle of the road just in rear of Edmondson's warehouse at the railroad depot. They are making numerous little holes down into the hard earth, whence they fly out and away, and whither they return with their spoils. They look just like the honey bee, notwithstanding the strange locality which they select for their homes and hive.

Fine Calf.—Some months since M. B. Sturges, Esq., of this place, bought a cow, paying $450 for her, for which he was laughed at by those who were not as good judges as himself of the qualities that constitute good stock. A few weeks since he sold a bull calf only 15 months old from this cow, for $275, and when sold it weighed 1,225 pounds. At the same time he was offered $250 for another calf from the same cow. So much for knowing how to judge of the good points of the bovine species.

AMADOR.

Killed by Frost.—*Ledger*, May 20: On Monday morning last the neighborhood of Jackson was treated to a very severe frost, a most unusual occurrence at this late season in the spring. It has played havoc with the young fruit around here. The grapes, which were just forming, have been shriveled up as if scorched by the blast of a furnace. In some cases, where the vines were in exposed places, the whole crop of fruit has been destroyed. In sheltered places the fruit has been injured to a less extent, but it is estimated that in this vicinity, where the frost was severest, the crop of grapes will be reduced two-thirds. Around Jackson Gate and Oneida valley the vineyards are all blackened. Jean Pernollet estimates his loss alone at $500. Other fruit was too forward to be damaged. The young vegetables growing in the ranches along Jackson creek are said to be badly nipped. The frost does not seem to have extended over a large area. At Butte and Stony creek, four miles from here in opposite directions, we learn that no frost of any consequence was experienced.

COLUSA.

"Must Have Hay!"—*Sun*, May 20: We were up at Jacinto last Saturday, when George Hoag came rushing up to Dr. Glenn, and said: "By thunder, Doc, you have got to get in the buggy with me and go and hunt for some hay!" "What's the matter?" said Glenn, "Can't you find any place to cut hay?" "That's just what's the matter," replied Hoag, "I have been looking all over the ranch, and hanged if I can find anything that I would like to cut for hay." "Cut the volunteer in the southwest corner," suggested Glenn, "that's what we always intended for hay." "I was down to look at that yesterday," was the reply, "and it will yield every grain of 30 bushels of wheat to the acre, and besides, the straw is too big." "Then cut the other field out west we were talking about." "That's worse," said George, "it stands above the top of the fence." "Well!" said Doo, "we *must* have hay," and off the two went to hunt over the the ten thousand acres Hoag has rented of him, to look for some small patches that might do to cut for hay.

CONTRA COSTA.

Local Dairy Interests.—*Gazette*, May 20: The dairy interests in this vicinity have attained a very considerable systematic development within a year or two past, and the fitness of climate and pasture for the production of butter that always commands the highest price in the San Francisco markets has been fully demonstrated. Two dairy firms, Tranquillo & Co. and Messrs. Lafanci & Co., lease pasturage on the Piper ranch, bordering on the straits, milking about 150 cows each, with an average butter yield of from 400 to 900 pounds per week to each firm. Their milkhouses are patterns of neatness, and all their facilities are very complete. The "Alhambra dairy," on the Blum & Levy portion of the Briones ranch, leased by Messrs. Ross & Griggs, is a model establishment, that is now marketing about 200 pounds of first quality butter per week, the yield of some 40 cows. Near by, on another tract of the Briones, Frano Deloche has his dairy for making, exclusively, a peculiar style of small French cheese, known as *fromage de pix*, which sell at lot rates of $2 per dozen in San Francisco The dairy makes about 50 dozen per week at this period of the season; and we understand that there is but one other dairy in the State that makes this description of cheese. These parties are all finding profit in the business, and their example shows what may be done by others in the section with like system and attention to it.

MARIN.

Tomales.—*Journal*, May 18: The people of Tomales are making a move in the right direction now. The need of that country is timber and shade trees, and a great amount of seed has been procured, enough to supply the whole region, and if the feeling is kept alive until the seed is put in, and the trees properly started, the benefit will be incalculable. Mr. J. L. Blake has been instrumental in encouraging this movement, and we hope he will see the result of his enterprise on every farm and roadside. Tomales is a very small, unpretentious village, yet it has a commercial importance that would astonish any one unfamiliar with the generous soil and the large dairy product of the coast line. Kowalsky & Co. will ship before the 1st of June 40 tons of butter. Last year they shipped 168 tons, and their business amounted to $300,000. Last year they filled a contract with the Government for 25,000 pounds of butter in glass jars; this year 16,000 pounds. On the 2d of May they took in 13,100 pounds of butter.

MERCED.

Intelligent Cultivation and the Results. *Valley Argus*, May 20: Mr. J. F. Goodale has in cultivation on the north side of the creek some 550 acres of land with a now ripening crop of wheat and barley—mostly wheat—summer fallow and volunteer, all of which is in first rate condition and will yield an exceedingly heavy crop, being not inferior in any respect, perhaps, to the best crops in the valley; and on the south side of the creek, adjoining town, he has 200 acres of winter sown grain, that bids fair to make a heavy crop of grain, though it is not so forward and does not show to as good advantage as the summer fallow upon the north side of the creek. Mr. G. has usually made good crops upon his land and informs us that he last year plowed his summer fallow fields nine inches deep, after which he ran over it with a cultivator, tearing it up the same depth, following the latter with a thorough harrowing. The result is an extraordinarily heavy crop of grain now nearly ready for harvesting, and few oats or weeds except along roads or about old sheep and cow corrals. The following day we paid a visit to the ranch of Mr. M. D. Atwater, where we found the crop of wheat far better than we expected to see growing upon upland. Mr. A. has in cultivation some 3,000 acres of land, mostly mulatto soil, upon the highest eminence of which is his dwelling and garden, and though the seasons preceding the present one have been unfavorable he has uniformly made good crops. In addition to grain farming Mr. Atwater keeps a limited number of sheep, which serve to eat up the stubble and waste of grain fields and yield good crops of wool and are thought to be vastly advantageous to the land, feeding, as they do, for most of the year upon that which more improvident farmers burn in order to clear the land for plowing. Mr. C. H. Huffman has nearly 3,000 acres of land nearly all in wheat, a portion of which, less than 150 acres, was somewhat injured by the winter floods. This excessively watered section will, however, yield a good crop of hay. Mr. Huffman has about 800 acres of volunteer wheat, which, it is estimated, will average 40 bushels. The general average yield of his entire land is estimated at 30 bushels to the acre at the very lowest; and a portion of the summer fallowed land will, according to the estimate of good judges, yield not less than 60 bushels per acre. Mr. Huffman plows deep and works the soil in a thorough manner. It is not alone in the thoroughness with which he plows and pulverizes the clods that he shows his skill and proficiency in farming, but his improvements generally are in keeping with the good judgment displayed in the work of tillage and culture.

MONTEREY.

Home Grown Fruit.—*Democrat*, May 20: We are told that Tom Watson's orchard, on the Corral de Tierra, presents this year the finest prospects for fruit. That locality is out of the track of the coast winds, is subject to very little frost and produces such fruit as peaches and melons in perfection. The latter, especially, are the crispest and juiciest that are brought to this market. There is no reason, in fact, why we should continue to pay freight and expressage on fruit brought here from points at a distance from this valley, though there are some of our farmers who appear to think that it is a paltry business to grow fruit for sale. Thousands of dollars go out of this valley every season in payment for these "necessities." There need not go one.

NAPA.

Berryessa.—Eds Press:—Grain never looked more flattering for a fine yield, and hay looks as if there will be twice as much as will be consumed. There is scarcely a ranch but what is running two or three mowers and men to keep things going. Some are selling hay at $11 per ton, baled. We had a light shower last night, but not enough to do damage.—Berryessian.

New Wine Cellar.—St. Helena *Star*, May 20: Mr. W. P. Weaks has bought of Mathew Vann 34 acres at Pine station, on the east side of the road, and contemplates erecting thereon a concrete wine cellar, to be ready for business the present season. Details are not fully settled as yet, but the size proposed is about 40x120, and two stories high, and have a capacity of 100,000 gallons. Work was commenced on it last Tuesday.

Cottonwoods Cursed.—*Register*, May 20: The cottonwood trees in the city having been declared a nuisance by the Board of Trustees, the one standing on Coombs street, in front of Col. Allen's lot, in the rear of the court house plaza, has been cut down. These trees are a nuisance from the fact that when they are in blossom the "cotton" from them is scattered broadcast on the just and the unjust, and gets into buildings with the pertinacity of a book agent. This tree came from a slip set out in 1856 by Robert Pierrepont, deceased, who was then District Attorney, and whose office stood on the lot near by.

SACRAMENTO.

The Danger Past.—*Record Union*, May 18: The month of April in California is generally conceded to be the critical month with the grain crops. It is during this month that, as a rule, we have more drying north winds than during any other month of the year. It so happens also that the soil during this month is generally in that condition that drying winds and heating rays of the sun do more damage than in any other month of the year, by forming a crust on the surface, and the consequent exclusion of the air from the roots of the plants. This crust frequently forms so closely around the stems of the plant as in a measure to pinch it and stop free circulation of the juices, and thus materially check the growth. The north winds of April also come so heavily loaded with free electricity that they seem poison to plant and even animal growth and health. We have noticed that though we have had our full share of north winds this spring, they have generally been cool and comparatively damp and free of electricity, and consequently their effect upon the soil and growing vegetation and animal life has been less deleterious than common. April has passed and the half of May also, and with this period has passed all serious danger from north winds. Hereafter for this season we may expect the trade or sea breezes from the south will so counteract the tendency of the north winds as to disarm them of all harm, especially so as the general dampness of the atmosphere will aid materially in securing this result. From this time on we may expect all our north winds to be preceded and followed by soft, damp atmosphere, thus helping vegetation to withstand the influences of the norther and also to recuperate immediately after it. Farmers may well rejoice that for this season the danger is past.

SAN JOAQUIN.

The Irrigation Commission.—Antioch *Ledger*, May 20: The West Side irrigation commissioners held their first regular meeting at Grayson on Tuesday last, and organized by electing J. R. McDonald President, and Henry de Vevue Secretary. The question of raising funds for the inauguration of the work was fully discussed, and J. R. McDonald was appointed a committee of one to solicit a loan of funds with which to make the preliminary survey.

SAN LUIS OBISPO.

The Result of Early Sowing.—*Tribune*, May 20: Early sowing seems to have been as much a success this year of plentiful moisture as under more adverse circumstances. In all our travels in and about the county, we find so marked a difference between early sowing and late, that we wonder that any person can shut his eyes to the advantages of the system. Volunteer crops have always illustrated the principle, but people have been slow to learn the lesson; but, however, we find that more haste was made to get in the seed the present season than heretofore. You may observe, in traveling through the Santa Maria valley, two fields side by side, with identically the same soil and culture, the one seeded early, the other late, with a difference in growth and prospect of yield of fully 50 per cent. in favor of the early sown. It is so at home, in Santa Barbara, and we believe everywhere in the State.

SONOMA.

Apple Blight.—*Argus*, May 19: P. N. Woodworth, of Stony Point, an extensive grower of fruits, informs us that a blight has affected the apple crop in his section. In Mr. Woodworth's orchard the trees blossomed very well, but very little fruit has set. The Yellow Newtown pippin seems to give promise of a better yield than any other variety. Mr. W. informs us that the peach, plum and other fruit has all a healthy appearance, and the trees are very full of young fruit. He cannot account for the blight of the apple crop, and is quite sure it is not caused by frost, for his other fruit being equally exposed would have suffered from the same cause.

Hay and Wool.—*Democrat*, May 20: The hay harvest is progressing in this county. The yield of hay to the acre is much over an average. The crop will be the largest ever made in Sonoma county. We are also in the midst of the shearing season. The wool is of excellent quality, but the yield is somewhat lighter than usual for some unaccountable reason; due, perhaps to late, heavy rains, which washed the yoke from the fleeces. On the Cotate ranch, the superintendent, W. McDowell, informs us the average yield of about 6,000 sheep will be five pounds to the fleece, which is half a pound short of last year's yield. If the lightness in the fleece is due to being a little cleaner than ordinary, the wool buyers at all events will be the better satisfied. Shearers on the ranch are paid at the rate of six cents per head. Mr. McDowell informs us that yesterday (Monday) he made 190 pounds of butter at one churning from the milk of 147 cows. All the cows on this ranch are high grade Short Horns. The price received for butter from the dairy for the past month was 28 and 30 cents per pound, which is over the average. About 90 acres of corn has been seeded broadcast for fall green feed for the dairy cows.

The Grape Crop.—Col. Whitman of Sonoma valley is in town. He informs us that the vineyards promise an unusually heavy yield. The vines are blossoming and present a healthy and vigorous appearance. Col. Whitman has one of the best vineyards in the county, in all about 70 acres, in the highest state of cultivation.

STANISLAUS.

Crops and Cultivation.—*News*, May 19: We notice an important change over ordinary years, and that is that there is an increased acreage sown to barley. Usually a considerable portion of the barley actually consumed in the county has been imported from other localities, whilst our fields were given up almost exclusively to wheat culture. There is also another important item, and that is that there is at least four times more than the usual amount of hay cut this year. Heretofore a great part of the hay used for livery purposes was often purchased in other localities and shipped into the county. Many of the farmers were in the habit of feeding wheat straw and purchasing their barley for teams used on the places. This year a greater number will have both barley and hay of their own, and hence it is but reasonable to predict that fat horses will be common. In summing up our observations we are forced to the conclusion that there are more really good fields of grain in the county, and at the same time a greater amount of poor ones, than we have ever before witnessed on what might be termed a good crop year. We believe that investigation will prove that, with but few exceptions and in small localities, this difference in the yield, often in adjoining fields, can be traced to a difference in the manner and mode of cultivation. Farming is more and more becoming a science. Heretofore acres told the future number of bushels; hereafter soil and proper cultivation will have also to be taken into the estimate.

Potatoes.—Through the kindness of Mr. J. R. Horsley, we have received a box of Early Rose potatoes, grown on his farm in Upper Dry creek, without irrigation. The sample sent us was of excellent flavor and well grown, and shows what can be done by a thorough cultivation in the making of our farms self-sustaining.

TUOLUMNE.

Black Frost.—*Independent*, May 20: We regret to learn that on Tuesday night all the grape crop on Mr. C. B. Amy's extensive ranch, on Curtis' creek, about four miles from Sonora, was destroyed by frost. He says it was a regular black frost, the heaviest he has known in dry weather. The yield promised to be immense, but now he expects to have but enough for table use.

YOLO.

Early Grain.—*Mail*, May 18: Jay Green, of West Grafton, this county, brought to our office on Saturday last a specimen sheaf of barley, which he says is a fair representative of 30 acres now ready for cutting and binding. It was sown before the fall rains and will be ripe enough for header work the first of next week. He tells us that he has been a farmer in Yolo county for 24 years, and never before saw barley so far forward by at least ten days or two weeks.

Foxtail—*Democrat*, May 18: This pest of stock is so thick in some of the clover fields that farmers are burning up their first crop as useless and in order to destroy the seed. The next cutting of alfalfa will be free from the foxtail, and we are told that where the seed is destroyed in this way the ground remains almost entirely free from it for several years.

Another New Fruit Dryer.—Keller & Co., No. 45 J street, have a newly invented fruit dryer which is well worth the attention of fruit growers. It is provided with a sheet iron furnace, with double top, so arranged that the smoke goes out from the front end, directly over the door. The furnace is six to eight feet in length, according to the size of the dryer, and 24 inches square, the construction being such that it heats, it is said, all portions of the sides and top equally. Over the furnace, and standing out from it at the sides and end, is a wooden frame, lined to a hight of 24 inches with sheet iron to keep the woodwork from taking fire. The sides of this frame, from one foot above the furnace, are filled with drawers, the bottoms of which are of iron cloth. Over the center of each tier of drawers is a hole in the framework, about four inches square, with a sliding cover, to let the steam, created by the moisture of the fruit which is being dried, escape. A neat iron frame is put over the furnace near the front, and ventilators admit air at each side, where the heat is the greatest. The hot air passes up through all the drawers, and out at the ventilators at the top. The drawers are in dimensions two by three feet, will hold about 25 pounds of fruit, and close firmly against the frame. Any drawer can be examined repeatedly, and the fruit, in all the stages of its drying, can be attended to from the ground. The capacity of the dryer is from one to ten thousand pounds of green fruit per day. The one on trial at Keller & Co.'s (which was built more by way of an experiment than to see how handsome it could be made), is claimed to have dried Irish potatoes in three and one-half hours. The dryers are so simple in construction that they can be furnished cheaply—from $110 for one of 24 drawers, capable of drying 2,000 pounds of fruit, up as high as the purchaser desires. All kinds of fruit and vegetables can, it is claimed, be dried by this system in as clean and perfect a manner as by any other, and the fruit handled more easily.—*Sac. Record Union.*

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

A Southern Home for Sale.—See advertisement of Lee H. Utt, whose fine place in San Diego county is for sale.

"Go Work Upon a Farm."

The song I sing to you to-day
Is not to learn a trade;
For I am sad the truth to say—
That song aside is laid.
The mills are running on half time,
The shops give forth no noise,
And it is hard to find a dime
Among the 'prentice boys.
The song that I shall sing to you
Your troubled hearts will calm;
If you have nothing else to do—
"Go work upon a farm."

The stores are filled with idle clerks,
Because the times are dull;
And he his duty plainly shirks—
When shops and mills are full—
Who seeks to learn a trade, or tend
The counter of a store,
In hopes the future yet will send
A fortune to his door.
Ah, vain are all such hopes as these,
That surely end in harm!
Don't seek to sit 'neath shady trees—
"Go work upon a farm."

Oh! why should men in cities pine,
Or idly stay in town?
Why loaf about, and crossly whine
That "things are upside down?"
Can this bring bread to wife and child,
And make the future bright?
Can this turn the weather mild,
Or furnish heat and light?
Such men should listen to my song,
And in it find a charm;
It tells them how to get along—
"Go work upon a farm."

Let no man starve for want of bread—
The product of the soil—
For all can still be amply fed,
Who will but share the toil—
The honest, manly toil that brings
The harvest season round,
When the glad farmer gayly sings,
Because of fruitful ground.
This, then, shall be the song we sing,
The whole world to alarm,
And loudly let the chorus ring—
"Go work upon a farm."

—*Sidney Herbert, in Semi-Tropical.*

Dress Reform, Etc.

[Written for the RURAL PRESS.]

I was very much interested in Sister C. A. C.'s "proclamation of emancipation." If the article itself could do the work—could clip the corset strings and cut off the heavy trains—she would set more captives free than did Abraham Lincoln in 1863. But, alas! in this case "it takes two to make a bargain."

I think, however, it must have done her a world of good to write the directions for obtaining such valuable patterns, and I hope they will prove a blessing to hundreds. I thought, a short time after reading the article, as I donned a trimmed train, skirt and overskirt and basque, "Oh, that I could cry with C. A. C.—'Emancipated!'"

Now, I imagine I hear her say, "Well, why don't she go ahead and be emancipated?" and I answer that I am, in a measure; for I do not wear corsets, and my clothes are partially supported by straps. Sister C. A. C. has, however, roused me to new deeds of daring.

I take a grim satisfaction, occasionally, in appearing without an overskirt, or a skirt "without a trim," and an overdress but slightly trimmed, when, if I think of it, I feel like a stranger in the midst of a ruffled and "perverse generation." Just here let me say a word for the comfort of farmers' wives and daughters. I know many of them who sometimes think their lot is hard, and wish they could hire in the city, and have more time to rest and read. Now, when I was a farmer's daughter I could "dress-reform" all day if I chose; but where the tongue of the door-bell has the ague from morning until night, heralding the arrival of all sorts of callers, from the mayor's wife to the sleek looking book agent, one is apt to bid farewell to short housework dresses and say in the afternoon, "I suppose I ought to put on an overskirt, if they are rather heavy."

It is a great deal of work to make clothing for the Americans of this age, and those who look for rest seldom find it if they do their own sewing. We are sometimes inclined to cry out for the "good old days." Indeed, many declare that the present generation is one of sheer folly; but when we remember that at one time fashion allowed its faithful followers to wear only white muslin, or something equally as thin, for dresses, with a single thin skirt beneath, then think of the warm quilted or felt skirts and thick dresses now worn; when we think that those thin dresses were made low in the neck and with short sleeves, that no coal-fires warmed the rooms, but open fire-places allowed only one side to be warmed at a time, that those fashionable ladies wore thin slippers, no matter how wet or snowy the streets might be (this seems almost incredible, but we have it from good authority, and will state that there was a redeeming feature—thick pelisses for out-door wear), we turn with relief to the long sleeves and high-necked dresses, allowing nice knit flannels from wrists to ankles, to the thick high boots, rubbers and leggins of the present day. We really begin to think that the world is moving in the right direction, even with trains and overskirts before our eyes. We rejoice, also, for the babies of this day, for we remember, in our childhood, they had to wear white dresses, low in the neck and short sleeved; and when they ran alone their dresses were very short, and some wore hoops. The first sensibly dressed child we remember came from California, when one of the correspondents of the RURAL PRESS visited her old home.

Looking the matter all over, perhaps we may as well conclude that as fashion allows us clothing enough, all we need is a *dress reform* to make us quite comfortable.

Reform usually has up-hill work of it, and we shall be apt to say many times, "Ephraim is joined to his idols," or "Woman is joined to her corsets," before they (the corsets) are out of fashion; but we hope we shall not "let her alone" until a healthy style of dress prevails. There is an article, not mentioned by Sister Colby, which would be a valuable addition to her suit.

Every one must acknowledge that the elastic bands commonly worn for stocking supports are injurious to the health, as they do not permit the blood to circulate freely, and the feet must suffer in consequence. "A New Subscriber" in the April *Household*, describes a stocking supporter, but not plainly enough so that one could make them with no other guide. Upon enquiry I found a friend who has them; and I have made some by taking for one supporter (and, of course, the other is made like it) one-half yard elastic, five-eighths of an inch wide, sewing upon each end a white plated buckle, such as tailors use on pants. Doubling the elastic I cut it in the middle, and, placing the ends so that the strips formed the letter V, I sewed them to a piece of soft white leather nearly an inch wide and an inch and a quarter long. In this a slit or button hole is cut, and it buttons to a strip of cloth (or elastic if preferred) which extends to the waist and is buttoned to a belt, but, of course, a button sewed upon the dress-reform waist would be infinitely better. The buckles catch upon the stockings on each side; the lower button, or small end of the letter V, to be above the knee *in front*. Those who have worn them say that the buckles will not wear the stockings; but when it is possible to obtain them, I should advise the use of the catch seen upon the single elastic strap sold for childrens' wear. Leather is also used for the button-hole at the waist, instead of cloth. I obtained a quantity of pieces at the apotheeary's without money, as they said they had no use for them.

If those who use the stocking supporters for children should use the leather once they would never make button-holes for that purpose again. Those who have used it say that it never breaks out; but, unfortunately, but few have thought of using it.

If any one knows of a better kind of dress than that already described, let them "rise and explain;" for Americans are so progressive, if they once see the evils of the present style and conclude to change, of course they will want to jump right into the best and most sensible that could be invented. NEW ENGLAND.

TRUE CONCEIT.—What the world very often mistakes for conceit is a self-consciousness, a recognition of the inward power, which is, in truth, very different from it. In our common acceptation of the word, a conceited man is an empty fellow who bases his opinion of himself upon no true grounds. Very often, great but untried men will take upon themselves the achievement of that which the world deems an impossibility. But, if the man has that within him which will carry him through, he is not to be blamed. It is the ignorant fellow and puffed-up fool who exhibits the richest crop of conceit. This quality should not be sneered away or banished, for, mean as it may appear, it has its uses. A little hard work in the world will rub down its salient points. The most conceited young fellow who ever lived will find his level soon enough when brought to the rude experience of the world. The great object should be for us to preserve sufficient manliness before man, which will lead to self respect, reliance, nobleness, independence and dignity. We must steer cleverly through all the shoals and quicksands of life, cultivating a proper lowliness, but yet an humble pride, if we seek, as all should seek, to be proper and true men.

INDUSTRY.—Independently of the wealth, influence and greatness which industry gains for us, it carries along with it another great advantage—it is conducive to the preservation of health. All things in nature are preserved in their native purity and perfection, in their sweetness and in their luster, by motion; but, when resting, they become corrupted or defiled. The air, when it is fanned by breezes, is pure and wholesome; but, when inactive, it is thick and putrid. Metals, when in use, are smooth and sparkling; but, when laid by, they contract rust. The soil, when tilled, yields corn; but, when fallow, it is overgrown with weeds and thistles. In fact, everything in nature is preserved in its proper condition by constant agitation. So the mental and bodily faculties of man, when in constant exercise, are preserved and improved; but, when unemployed, they become dull and heavy, as if they had contracted rust. By industry alone, then, do we preserve our healths and perfect our natures.

A Pretty Newspaper Holder.

Readers of the PRESS often write to us about the value of keeping back numbers on file for reference. We are going to describe a way in which a pretty newspaper holder may be made by a skillful needlewoman, and when the neatly made holder is hung upon the wall, it will make a pretty ornament as well as serve a very useful purpose. The device is very simple and consists of two ornamental straps. These straps may be crocheted and lined with some stout material; but the best plan, and the one for which we propose to give directions concerning the making, is to use canvas and embroider the straps.

Two straps are all that is required; being two inches wide, and about a yard in length. Only 20 inches of this strap need to be embroidered; we will tell you what to do with the rest when we come to the directions how to put them together. A vine pattern is pretty, either of shaded leaves or flowers; or else a double Grecian pattern, done in chalk-white and two shades of slate-colored beads. Fill in the unwrought ground with dark or bright crimson, or else green or black. So much for the embroidery of the straps; now for the rest of them. Line the inner part of the canvas, after working, with a color to correspond with the groundwork of your embroidery, and continue the lining on to the end of the strap, turning in the edges of both canvas and lining, overstitching them with silk, and covering the stitches with a row of beads of a color to correspond with the embroidery pattern.

The crossbar to which these straps are attached may be straight across, or else of an arched form at the top—our model is the latter, and has a pattern worked across it to match the design upon the straps, and is similarly filled in.

Attach the straps to each end of the bar, attaching them on with two rows of stitching done with strong silk twist; arrange so that the embroidered part of the straps will be outside when turned up. Across the places where you have sewed on the straps sew two pieces of canvas, also wrought, each piece two and a half inches long and one inch wide; now turn up the straps, and, having finished the ends in a neat point, attach a strong loop of silk braid or routache to each—or we should say loops of braid, for three are needed; the first is right below the pointed end, and attached to the inner part, or lining; the second is four inches above the first; the last is one inch from the point, or, if preferred, directly at the end of the point. Two inches above the pieces of canvas sewed on where the straps are attached to the bar, sew on a strong but not very large button, with a shank to it—this is to button the straps to by means of the different loops, first slipping the straps through the little cross pieces. They can be then regulated to hold a greater or less quantity of papers as need may arise—folding the papers neatly across once or twice, and slipping them in from the sides. The whole is hung upon the walls by means of loops at each end and in the middle. Only try this very pretty and convenient method of preserving your papers, and we are sure you will vote us sincere thanks for the suggestion.

How a Baby Wakes.

Did you ever watch a dear little baby waking from its morning nap? It is one of the prettiest sights in the world. There is the crib with its small preparations and snow-white drapery that covers something, outlined, round and plump. There is nothing to reveal what it is; not the slightest movement of the pillowed whiteness that is visible—no sound to indicate keenest actual life, until the hour hand of the clock that stands sentinel, like yourself, has twice made its circuit. Then there is a slight pulsing in the white drapery, a small, pink, tremulous hand, fair as a rosebud, is thrust out, and from the nest thus broken into appears a round diminutive face, with wide open eyes that have not much speculation in them yet. Soon, however, they cease to stare, and become questioning, serious, as if wondering what kind of a world they open upon; and the head lifts itself just a little, and two snow-white feet stand up spasmodically, with a simultaneous movement, each one of which has an attendant dimple. But the head is too heavy—it falls back on the pillow with its own sweet weight, the hair all damp and golden—the cheeks peachy—the mouth pouted, as if angels kissed it in dreams. The first lingering go-o-o comes from its rosy depths, sweeter than any bird's song, for it has a spirit tone and yet retains a thrill of its native skies. The chubby hands are lifted imploringly, persuasively—the baby, awake, ceases to be an angel.

USE GOOD ENGLISH.—A great deal depends on early habit; and correct language learned in early life is easily continued ever afterward. Whenever young persons use a wrong word, let them immediately select the right expression and repeat it to themselves a number of times, and in this way it will soon become easy and natural. Without such repetition in use they will certainly fail. Everything in life depends on a good use of English; and on the other hand, nothing will retard successful progress in life sooner than bad English, bad pronunciation, and slang words. Edward Everett said, that "to read the English language well, to write a neat, legible hand, and to be master of the first four rules of arithmetic—I call this a good education. And if you add the ability to write pure grammatical English, I regard it as an excellent education."

A Family Journal.

In a certain farm-house twenty years ago a great blank book was kept, and labeled Home Journal. Every night somebody made an entry in it. Father set down the sale of the calves, or mother the cutting of the baby's eye-tooth; or, perhaps, Jenny wrote a full account of the sleighing party last night; or Bob the proceedings of the Phi Beta club; or Tom scrawled "Tried my new gun. Bully. Shot into the fence and Johnson's old cat."

On toward the middle of the book there was an entry of Jenny's marriage, and one of the younger girls had added a description of the brides-maids' dresses, and long afterward there was written, "This day father died," in Bob's trembling hand. There was a blank of many months after that.

But nothing could have served better to bind that family of headstrong boys and girls together than the keeping of this book. They come back to the old homestead now, men and women with grizzled hair, to see their mother who is still living, and turn over its pages reverently with many a hearty laugh, or the tears coming into their eyes. It is their childhood come back again in visible shape.

There are many other practical ways in which home ties can be strengthened and made more enduring for children, and surely this is as necessary and important a matter in the management of a household as the furnishing of the library or chambers in good taste, or the accumulation of bric-a-brac. One most direct way is the keeping of anniversaries; not Christmas, Easter, nor the Fourth of July alone, but those which belong to that home alone. The children's birthdays, their mother's wedding day, the day when they all came into the new home. There a hundred cheerful, happy little events which some cheerful and happy little ceremony will make a life-long pleasure. The Germans keep alive their strong domestic attachments by just such means as these; it seems natural and right to their children that all the house should be turned topsy-turvy with joy at Vater or Mutter's geburtstag; while to the American boy or girl it is a matter of indifference when his father or mother were born. We know a house in which it is the habit to give to each servant a trifling gift on the anniversary of their coming into the family; and, as might be expected, these anniversaries return for many years. Much of the same softening, humanizing effect may be produced by remembering and humoring the innocent whims and peculiarities of children. Among hard-working people it is the custom too often to bring up a whole family in platoons and to marshal them through childhood by the same general inflexible rules. They must eat the same dishes, wear the same clothes, work, play, talk, according to the prescribed notions of father or mother. When right or wrong is concerned, let the rule be inexorable; but when taste, character or stomach only is involved, humor the boy. Be to Tom's red cravat a little blind; make Will the pudding that he likes, while the others choose pie. They will be surer of your affection than if you sentimentalized about a mother's love for an hour. Furthermore, do not grow old yourself too soon. Buy chessboards, dominoes, bagstelle; learn to play games with the boys and girls; encourage them to ask their friends to dinner and tea, and take care that your dress and table be pretty and attractive, that the children may be ashamed of neither.

"Why should I stay at home in the evening?" said a lad the other day. "Mother sits and darns stockings or reads Jay's Devotions; father dozes, and Maggie writes to her lover. I'll go where I can have fun." Meanwhile the father and mother were broken-hearted because Joe "was going to ruin," which was undoubtedly the fact.—*Scribner's Monthly.*

PICKLED LION.—The owner of a zoological garden at Hamburg, a Mr. Hagenbeck, recently forwarded a lion to Paris for sale. On the way the king of beasts took sick, and a few days after his arrival at the French capital he died. The consignee telegraphed the fact to the owner, asking instructions what to do with the carcass. The Hamburg zoologist was quite put out at the loss of an animal worth $3,000, and in his anger sent back a telegram in these words: "I don't care what you do with the lion; you may put him in pickle if you like." The Frenchman, no doubt educated to the rule that it is best to obey orders if you break owners, had the lion skinned and the body nicely put in salt brine and returned to Hamburg, packed securely in a large hogshead. The zoologist refused to receive it, and there is a lawsuit pending against him for freight charges and other expenses; but the people of Hamburg enjoy the fun about the man with a pickled lion.

AN OSTRICH'S APPETITE.—The following advertisement from a South African newspaper is a curiosity in its way: "£10 reward. Lost, a tame ostrich. Said ostrich was missed yesterday directly after having devoured certain pieces of machinery which one of the ladies of the advertiser's household had apart and was cleaning on the front veranda at the time. He is supposed to have wandered off in a fit of melancholy directly after committing the deed. The above reward will be paid for the return of the pieces, as they are invaluable on account of the long time required to replace them from the United States. The parts wanting are a face-plate, needle-bar and shuttle of a sewing machine. I am not particular about the ostrich.—*John Burroughs.*"

How the Oyster Grows.

Mr. Frank Buckland, who conveys instruction more agreeably than any naturalist of the day, thus explains the manner in which the oyster builds his shell:

The body of an oyster is a poor, weak thing, apparently incapable of doing anything at all. Yet what a marvelous house an oyster builds aronnd his delicate frame. When an oyster is first born he is a very simple, delicate dot, as it were, and yet he is born with his two shells upon him.

For some unknown reason, he always fixes himself on his round shell, never by his flat shell, and being once fixed he begins to grow; but he only grows in summer. Inspect an oyster shell closely, and it will he seen that it is marked with distinct lines. As the rings we observe in the section of the trunk of a tree denote years of growth, so do the markings on an oyster tell us how many years has passed in his "bed" at the hottom of the sea.

Suppose the oyster under inspection was horn June 15th, 1870, he would go on growing up to the first line we see well marked; he would then stop for the winter. In summer, 1871, he would more than double his size. In 1873 and 1874 he would again go on building till he was dredged up in the middle of his work in 1875; so that he is plainly five and a half years old. The way in which an oyster grows his shell is a pretty sight. I have watched it frequently. The beard of an oyster is not only his breathing organ—*i. e.*, his lungs—but also his feeding organ, by which he conveys the food to his complicated mouth with its four lips.

When the calm warm days of June come, the oyster opens his shell and by means of his heard begins building an additional story to his house. This he does by depositing very, very fine particles of carbonate of lime till at last they form a substance as thin as silver paper and exceeding fragile. Then he adds more and more till at last the new shell is hard as the old shell. When oysters are growing their shells they must be handled very carefully, as the new growth of shelt will cut like broken glass, and a wound on the finger from an oyster shell is often very dangerous.

Cat Mail Carriers.

No animal has heen more thoroughly misunderstood by the careless and prejudiced observers who constitute the majority of mankind thau cats. Belgians have formed a society for the mental and moral improvement of cats. Their first effort has been to train the cat to do the work now done by carrier pigeons. The most astute and accomplished scientific person would have his ideas of locality totally confused hy being tied up in a meal bag, carried 20 miles from home, and let out with a loud request to "scat" in a strange neighborhood in the middle of the night. This experiment has, however, been repeatedly tried upon cats of only average abilities, and the invariable result has been that the deported animal has reappeared at his native kitchen door the next moruing, and calmly ignored the whole affair. This wonderful skill in traveling through unfamiliar regions without a guidebook or a compass, has suggested the possibility of cats being used as special messengers. Recently 37 cats residing in the city of Liege were taken in hags a long distance into the country. The animals were liberated at two o'clock in the afternoon, and promptly proceeded to "scat." At 6:48 the same afternoon one of them reached his home, and beyond hinting, though in a much more delicate way than that employed by Mr. Wegg, that a saucer of milk would be peculiarly "mellering to the organ," he did not make the slightest allusion to his long and troublesome journey. His feline companions arrived at Liege somewhat lator, hut it is understood that within 24 hours every one had reached his home.

It is proposed to establish, at an early day, a regular system of cat communication between Liege and the neighhoring villages. Messages are to be fastened in waterproof bags around the necks of the animals, and it is believed that, unless the criminal class of dogs undertakes to waylay and rob the cats, the messages will be delivered with rapidity and safety.—*N. Y. Times.*

Why She Planted Roses.—A blacksmith had in possession, but under mortgage, a house and piece of land. Like many others, he was at one time fond of the social glass, but was happily iuduced by a friend to join the temperance society. Abont three months after, he observed his wife one morning busily engaged in planting rose bushes and fruit trees. "Mary," said he, "I have owned this lot for five years, and yet I have never known you to care to improve it in this manner." "Indeed," replied the smiling wife, "I had no heart to do it until you gave up the drink. I had often thonght of it before, but I was persuaded that should I do it, some strangers would pluck the roses and eat the fruit. Now, with God's blessing, this cot will he ours and we and our children may expect to enjoy the produce. We shall pluck the roses and eat the fruit." And they did. Their cottage was known as the prettiest in the neighborhood.

Each of us bears within himself a world unknown to his fellow-beings, and each may relate of himself a history resembling that of every one, yet like that of no one.

Knowledge is the parent of dominion.

Young Folks' Column.

My Daughter!

Ring out, wild bells—and tame ones, too—
Ring out the lover's moou;
Ring in the little slips and socks,
Ring in the bib and spoon;
Ring out the muse, ring in the nurse,
Ring in the milk and water;
Away with paper, pens and ink—
My daughter, oh, my daughter!

Yacob and His Donkey.

Yacob was the name of an Arab boy in the Oriental city of Cairo. He was poor, aud, like most of the poor boys in that city, his chief ambition was to own a doukey and hire him out to the travelers to go to the Pyramids and other places of interest in the neighborhood of Cairo. As it was, he was only the driver of another man's donkey; that is, when the animal was mounted hy the traveler, he ran behind, poking the quadrupea with a sharp stick to keep him at a brisk trot.

One day, while Yacob was standiug in front of Shepherd's hotel in Cairo, wishing he had a donkey of his own, an English traveler on the verandah beckoned to him and asked him why he looked so wistful, and Yacob answered that he was unhappy hecause he had no donkey.

And when the Englishman heard his story, he called his servant and told him to briug up Mafish, which was an old sleepy donkey. Then he said to Yacob:

"Would you be happy if yon owned that donkey, my lad?"

"Oh, master, I would be happy with any donkey!" said Yacob.

"Then," said the Englishman, "he is yours—"I make him a present to you."

When he said this, the other travelers gathered around, with smiles on their faces, for it appeared that the Englishman was a man much given to making fun. He told Yacob to get on the donkey and ride him up and down in front of the hotel a few times, to show his gait. Yacob got astride of him, and found that he was stiff in the legs and moved slowly, notwithstanding the sharp pokes he gave him with his stick.

"I shall give the donkey a name that will draw custom for you," said the Englishman, as the lad rode up to the verandah.

Yacob was much pleased that his benefactor should give the donkey a name, for he had seen some of his companions who hired their donkeys more easily than others, on account of fortonate names given to them by travelers.

"I shall be much glad to call him what my master pleases," said Yacob.

"Then his name shall be Lightning," said the Englishman, and the other travelers laughed.

Yacob did not know what Lightning meant, and he continued to call his donkey by that name after the Englishman went away. He did not have much difficulty in hiring his donkey; but when the travelers started on their journey, they told Yacob that he was a humbug, and that he had imposed on them with his auimal. So that they only kept Lightning for a few minutes, and the same people never hired him twice.

One day, as he led his old donkey toward the hotel veranda, after heing called a humbug by an angry traveler, who refused to pay him for hire of half an hour, he was spoken to by a fat man in a long black coat. who told him he ought to call his donkey Slow-coach.

After that, Yacoh called him Slow-coach, not knowing any more about that name than he did about Lightning. But this change of name, instead of mending matters, made them worse. In short, no one would hire his donkey any more on any condition, and Yacob and Slow-coach were a rueful pair, as they stood idly hefore the hotel.

One day, as he stood thus, the Prince of Wales came out from the veranda (the Prince was then on his way to the East Indies), mounted Slow-coach, and rode him two or three yards, and then got off and took auother donkey. Thereupon Yacob bemoaned his bad luck in hearing of an American sitting on a tilted chair on the veranda.

"Yacoh," said the American, "your donkey shall be hired as much as any other, but hereafter his name must he the Prince of Wales."

The American had a certificate drawn up and sworn to before the American Consul in Cairo, to show that the Prince of Wales had, without auy doubt, mounted Yacob's donkey; and when the lad wanted to hire the animal to any man, woman or child from England, all he had to do was to show this certificate, and they straightway engaged him, notwithstanding his moping gait and stiff legs. They engaged him for whole days, fondled him, and begged Yacob not to poke him up too sharp from behind. They fed him with whatever he would eat, and the only drawback to the donkey's pleasant life was that his tail was plucked a good deal for mementos.

Yacoh said, and says still, that the luckiest day of his life was when he was spoken to by the American gentleman on a tilted chair.—*Albert Rhodes, St. Nicholas for May.*

How bright and busy the "Dumb Creation," when we come to know! Only think! The sweet little thrush works 19 hours out of 24 to supply its nestlings with food! Blackbirds toil 17 hours! Be good to these faithful, tender little hird-mammas and papas.

Good Health.

Diet Dispensaries.

In New York and Brooklyn, and probably in other large cities, diet dispensaries have been of signal benefit to a large class of needy and deserving people. In health the working classes can eat almost anything; but in sickness, unable to earn their daily bread, and quite ignorant of the way to prepare diet for invalids, they suffer as much from the want of knowledge as from the lack of means. Every intelligent person knows that recovery from illness depends more upon food and careful nursing than upon medicine; indeed, the conviction is growing in the public mind, as it should, that strict conformity to the rules of hygienic living would obviate the necessity for medicines, and dismiss to other professions the majority of medical men. There are many who depend upon such means as diet, nursing, sleep, and judicious exercise to restore the sick without resorting at all to so-called medicines. In this class are many physicians, who give indeed bread pills, harmless tinctures, and skillfully compounded innocent mixtures to satisfy the patient, and insist upon the utmost regularity in diet, sleep, bathing, and exercise, relying upon these agencies and the recuperative powers of nature to effect a cure. To reach out a helping hand to all who need, these diet dispensaries have been established. A depot is opened for the distribution of supplies, which are given only to those who bring an order setting forth the peculiar needs of the applicant from a physician approved by the managers of the dispensary. The food furnished consists of beef tea, broths and such diet as may be required, prepared from the best of material, in a cleanly and wholesome manner, under the direction of a matron of experience and skill, who is under the supervision of a committee of ladies from the board of managers. The funds needed to carry on these institutions are obtained from memberships, from contributions, and from moneys realized from fairs and festivals held for the purpose. An officer of the society visits those who are recipients of diet, aud, if they are needy, makes their case known and relieves them so far as is in her power by private aid, not from the funds of the dispensary. Those who desire to purchase diet for invalids can do so on reasonable terms, the proceeds going into the general und.

There are many towns and villages containing a large manufacturing population where an institution of this character would do a great deal of good; as much to those actively engaged in the work as to the recipients of the benefaction. "It is more blessed to give than to receive," aud they who imitate the Great Physician in doing good to the bodies as well as the souls of men, receive more thau they give.

The Danger of Eating too Much.

"Nobody ever repeuted of eating too little," was the sage remark of, an old gentleman on the verge of 90, next to whom the writer had the pleasure of sitting at dinner the other night. The host was pressing him to take more and urging him in the usual phraso, "Why, you have eaten scarcely nothing!" Now, it is to be assumed that the old gentleman's words indicated one of the by-ways to good health, along which he had traveled through his long life, and to which he owed his present remarkably hearty condition; so it was suggested to him interrogatively that he had always been a small feeder. "Yes," he answered, "ever since I was two or three and twenty; up to that time I was a weakly young fellow enough, and I used to make the great mistake of trying to eat and drink as much as I could, in the hope of becoming strong. All my friends and the doctors backed me in my error; hut fortunately I found it ont in time and 'knocked off'—as your modern slang has it—more than half my usual amount of stimulants. I gave up the idea of making myself strong, and merely strove to make myself well, aud I was contented with eating just as much as I could digest and no more. Of course it took a little time and experience to discover the precise limits; I could not adopt the golden rule of always leaving off with an appetite, because I never began with one, but by persistently erring on the right side, I got hold of one of the great secrets of life—the secret of knowing when one has enough, and after a year or two I became so much better that I used to find myself ready to eat a meal at any time, and by degrees actually acquired an appetite. Then, once found, I never destroyed it, but always determinately rose with the feeling that I could eat more. Naturally temptation grew stronger, but I was firm. I did not behave ungratefully to my stomach and immediately presume upon its increased powers hy overloading it. I did not live to eat, but only eat to live; and behold me! I have no need to be very particular as to what I eat, even at my time of life; I have only to be careful not to eat too much." Here, indeed, is the great secret of a great deal that is amiss with many of us. We are in the habit of eating too much, more than our digestive powers can tackle, and that which is not assimilated more or less poisons. The system becomes overcharged and gives any latent tendency to disease within us every faculty for developing itself. The question is not so much what to eat as what quantity to eat, and nothing but a sharp lookout kept hy ourselves can give us the answer.—*Tinsley's Magazine.*

Domestic Economy.

Flavorings.

Very much of the success of culinary labor depends on the skill with which flavorings are used. An excess of spice in mince pie or puddings or cake spoils them as certainly as a deficiency renders them flat and insipid. Goose served with onion in the stuffing entrees and goose served without it are entirely distinct dishes. A bunch of sweet herbs boiled in soup not only improves its flavor, but increases its assimilative properties. Comparatively little attention has been given in this country to the art of flavoring, and French cooks, very largely indebted to their knowledge of it for their popularity, are preferred in hotels and private families that can afford to hire them to cooks born here. A French cook can take a sweetbread, a kidney, a bit of tough meat, and with a sprig of parsley, a bay leaf, a little thyme and sweet hasil, make a dish perfectly delicious, at trifling cost; but American cooks must have steaks at 25 and 30 cents a pound, roasts of high price, the choicest parts of mutton and lamb, or they cannot be expected to get up a nice dinner; and if black pepper in quantity is supplied, no more flavorings are required. Those people who can afford to spend lavishly upon their table may indulge in choice meats that are not benefited by added flavors, but those who must buy cheap meats may by skill in cooking get almost as much good of them, both in the way of nutrition and enjoyment, as their wealthy neighbors do of theirs.

What spices are to cake, puddings and pies, sweet herbs are to meats and savory dishes. Every housekeeper should have her little plot in the garden of sage, summer savory, sweet marjoram, sweet basil, thyme and parsley, and practice the art of blending flavors harmoniously. They are to food what fragrance is to flowers. Accustomed to these innocent flavorings, those whom she feeds will not require or enjoy the fiery condiments that are so common upon our tables, and that, though they would raise a blister upon our backs, we put without hesitation upon the delicate lining tissues of the stomach.

A Cheap Window Ventilator.

Professor Kedzie writes as follows to the London *Sanitary Record:*

I propose a cheap window ventilator by which the air will enter in two thin layers, with an upward movement by which it will mingle with the warm air of the room so as to prevent sensible currents of cold air. Take two pieces of board a quarter of an inch thick, one inch wide, and as long as the lower bar of the window; three narrow pieces half an inch thick and one and a half inches long, one end being cut with the bevel of the window stool. Nail these pieces across one of the long slats, one at each end and one in the middle, placing the short side of each piece even with the lower edge of the slat. Nail the other slat on the opposite side of these short pieces, bringing the upper edge of the slat even with the square end of the short pieces. This will make a compound bar with half an inch between the slats, and one slat half an inch higher than the other when the whole is turned upon its edge.

Place the whole under the lower window sash, with the higher slat on the outside. The air can then pass under the outer slat, between the two slats, and enter the room over the top of the inside slat, having an upward motion which will cause it to mingle rapidly with the warm air of the room, and thus prevent any sensible draft. By thus raising the lower sash, a space will be left between the top of the lower sash and the bottom of the upper sash, through which another thin layer of air may enter the room at some distance from the layer at the bottom of the window. The air must also enter with an upward current, causing it to speedily mix with the hot air in the upper portion of the room.

This arrangement is especially adapted to secure safe window ventilation in bedrooms. If properly constructed and inserted, it will never cause sensible currents in the body of a room except when strong winds prevail, when we usually secure enough ventilation by the imperfect construction of our window casings.

Keep the Recipes.—Every housekeeper should have her own recipe book—a book of her own creation, of general growth and proved excellence—and we propose to show our lady readers how to make one. In the first place, buy a blank book and write your name and date on the first leaf. Divide the book into as many different departments as you wish, heading each page with the department to which it belongs, as follows: Recipes for cleaning; recipes for soups; recipes for cooking meats; recipes for cake; and so on through family cooking. Then come cooking for the sick, care for the sick, and all the various things that are a part of woman's duty, and for which, unfortunately, there is no school but experience. Number your pages if they are not numbered in the beginning, and make an index, leaving blank spaces in the index to correspond with blank pages between the departments which you do not expect to fill immediately. Write down under these different heads every recipe which you have actually tried, or the result of which you have seen in the houses of your friends, and enter the page in the index.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—

	1 week.	1 month.	3 months.	1 year
Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, May 27, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Agricultural Improvements; Rejoicing at Lodi; The Dodge Hay Press; The Value of Straw, 337. The Week; The Dairy Advance; What Shall be Done with the Sheep? The Centennial at Philadelphia, 344-5. The Insect on the Orange and Lemon Roots, 345. Patents and Inventions, 348.

ILLUSTRATIONS.—The Dodge Excelsior Hay Press, 337. The Centennial Encampment at Elm Station, 340. The Insect on the Orange and Lemon Roots, 345.

CORRESPONDENCE.—Agricultural Education in Germany, 338.

HORTICULTURE.—Fertilizers for Fruit, 338.

THE DAIRY.—The California State Dairymen's Association, 338-9.

SHEEP AND WOOL.—The Weight of Burrs, 339.

BEES.—The San Diego Honey Interest; Parasites on Bees, 339.

USEFUL INFORMATION.—The Art of Skeletonizing Leaves, 339.

ARBORICULTURE.—The Sanitary Value of Forests; How to Treat the Black Walnut, 339.

PATRONS OF HUSBANDRY.—Rulings; Fruit for the Centennial; Election of Officers; The Encampment; Amendments; From the Granges, 340-41.

AGRICULTURAL NOTES from various counties in California, 341.

HOME CIRCLE.—"Go Work Upon a Farm" (Poetry); Dress, Reform, Etc.; True Conceit; Industry; A Pretty Newspaper Holder; How a Baby Wakes; Use Good English; A Family Journal; Pickled Lion; An Ostrich's Appetite, 342. How the Oyster Grows; Cat Mail Carriers; Why She Planted Roses, 343.

YOUNG FOLKS' COLUMN.—My Daughter (Poetry); Yacob and His Donkey, 343.

GOOD HEALTH.—Diet Dispensaries; The Danger of Eating too Much, 343.

DOMESTIC ECONOMY.—Flavorings; A Cheap Window Ventilator; Keep the Recipes, 343.

QUERIES AND REPLIES.—How to Catch the Duck Killer, 345.

MISCELLANEOUS ARTICLES.—Railroad Commissioners; Lawful Fences, 339.

NEW ADVERTISEMENTS.

Centennial Boarding Agency Bureau, Philadelphia, Pa.; A Desirable Bargain, Lee H. Utt, San Diego Co., Cal.; The Collateral Loan and Savings Bank, Solon Pattee, President, S. F.; Centennial Windmill, E. O. Hunt, S. F.; Searcher of Records, R. G. Nagle, Santa Rosa, Cal.

The Week.

The week brings us a dash of rain in haying—a doubtful luxury which some comer from the East forgot to leave behind him. We do not yet learn whether there was enough of the downfall to do harm or not. The hay crop realizes all promises and is beyond doubt the largest ever cut in this State. The price shows well the abundance, for we hear of $5 a ton asked in some localities and $8 and $10 in others. There will be sleek, well-fed farm animals this year in California.

Last week a severe frost did great damage to the fruit in the upper counties. In Amador, Calaveras, Tuolumne and Nevada counties we hear of considerable losses both on trees and vines. Other counties adjoining doubtless suffered also. We sympathize with those whose bright fruit prospect is thus partially blighted, and trust they may be compensated in part, at least, by a better price for what remains. In other regions of the State former promises of fruit fullness are rapidly approaching realization. Let the losses prove a timely warning to prepare to meet the frost with the simple remedies which have been proved practicable and effective. The great grain harvest draws on apace, disclosing new greatness and glory day by day.

ON FILE.—"Botanical Excursions," J. G. L.; "Figs in California," W. B. W.

The Dairy Advance.

We print in our Dairy Department this week a report of the meeting held last week, which resulted in the organization of the "California State dairymen's association." We shall be surprised if from this time there will not be dated the commencement of a new era in the dairy history of our State. The characteristics of the new era will be a general improvement of dairy products; a wider recognition of the importance of the dairy interest of the State; a better care of dairy goods by the parties or companies which do the transportation from the dairy to the market, and a fairer handling of the goods by those who do the marketing. These improvements and reforms will be accomplished by the dairymen themselves. By counselling together they will arrive at a better understanding of the points involved, and by combining strength in common cause, they can exert an influence which as individuals they could not exert. This is in brief the full scope and purpose of the new organization.

Of course the policy and purpose of the society will be just such as the members shall decide by their voices and votes in the coming meetings. But we may say that, as far as we can now foresee its action, it will not attempt to interfere with the established channels of trade, nor undertake any enterprise outside the legitimate sphere of dairy production. It will proceed upon the ground idea of an associated effort to secure more light upon every question affecting the dairymen's interests. When one member demonstrates a method of securing a better return from dairy investment or dairy labor, whether it be in the matters relating to the production of milk or improving the quality of the manufactured product, all members can scrutinize it and, if it be valuable, they can apply it to their operations. In this way the society will be for mutual improvement. In another branch of its work, if a number of members discover that their products are not properly cared for in transit, or have reason to believe that their interests are not uprightly served by the parties to whom they are entrusted, there will be a united protest, and a united demand for reform, which offenders will find it for their own interest to respect and act upon. In this way the society will be for mutual protection. In these two lines of improvement and protection, as we understand the organization, its labors will be engaged. As this is its character it will call for no money investment from members beyond defraying the small expenses of its meetings and publications.

In connection with the establishment of a movement, it is interesting to learn something of the field which courts its efforts. According to the report of the Surveyor General the amount of butter produced in this State during the year 1874 was 6,926,140 pounds, and of cheese 3,412,642 pounds. This was an increase of 1,000,000 pounds of butter, and more than 1,500,000 pounds of cheese, over the production of these articles during 1873. These figures are far short of the actual dairy production of the State, as will appear by the following showing of the receipts and value of butter and cheese in this city during the years named:

Butter.

	Pounds.	Value.
July 1, '71, to June 30, '72....	4,865,700 at 25c.,	$1,216,425
July 1, '72, to June 30, '73....	5,087,200 at 25c.,	1,271,800
July 1, '73, to June 30, '74....	6,594,000 at 25c.,	1,648,500
July 1, '74, to June 30, '75....	8,378,700 at 25c.,	2,094,675
July 1, '75, to April 30, '76....	8,535,900 at 25c.,	2,133,975

Cheese.

July 1, '71, to June 30, '72....	1,257,600 at 12½c.,	$157,200
July 1, '72, to June 30, '73 ...	2,301,600 at 12½c..	287,700
July 1, '73, to June 30, '74....	4,276,400 at 12½c.,	534,550
July 1, '74, to June 30, '75....	5,778,900 at 12½c.,	722,362
July 1, '75, to April 30, '76....	4,520,300 at 12½c ,	565,037

The above figures are furnished us by Mr. Stone, a careful statistician, and are trustworthy. The price both for butter and cheese are put at a very low average, to guard against excessive figures. From these aggregates, increasing so rapidly from year to year, it clearly appears of what growth and importance is the dairy interest of our State. It is to foster and promote this interest that the dairymen's organization will labor with united skill and zeal.

One essential requisite for successful productive growth is the prospect of increased demand to meet increased production. This requisite has attended the extension of the dairy interest wherever it has been accomplished. For twenty years the fear that the business would be overdone has furnished croakers material at the East, and yet each year the production has increased and prosperity has shone upon the dairymen. There is no class of Eastern agriculturists who have been so uniformly and continually successful as the New York State dairymen. We have not only this general surety that there will be a demand for all the milk products which can be produced under our farming skies, but we have a special surety that more butter and cheese can be made on this coast, because it cannot be doubted that so long as these articles can be profitably brought across the continent to our markets, they can be profitably produced here in larger quantity. During the year 1875 we imported from the East more than 13,000 firkins of butter and about 600,000 pounds of cheese. These supplies should all be produced here.

That the dairymen's association will assist greatly in developing the great dairy interest of this State is as sure as its existence, if the dairymen will take earnest hold of the organization, bring to its meetings the results of their experience and investigation, and present for its consideration the questions which vex the single mind. We trust that they will do this. If the dairymen will begin at once and bring to the October meeting the fruit which their observation shall suggest, we shall have a report to make of that meeting which will show the dairy interest and fitness of this State in a light which no one now can comprehend, because there now exists no general description of the progress of the State in this direction. It will be a showing which will make us justly proud of the dairy resources of our State.

What Shall be Done With the Sheep?

The extremely low price of wool and mutton is urging sheep growers to examine every method which promises some profitable use for the surplus of the flocks. There are no inducements to increase the flocks so far as present conditions are concerned. The situation presents all the features of an overstocking. We believe the fault lies rather in the disposition of the market than in any great excess of interest in sheep husbandry. Wherever the cause be, it is certain that for the moment the effect is a ruinously low price both for wool and mutton. If, however, the fault is seen to lie wholly in the depressed condition of trade and manufactures, it cannot be predicted how soon the revival may come. It is sure to come, and he who has material ready to fill its needs will gain the profits. This has been shown over and over again in the history of agricultural productions in this country and within almost every one's memory. Great sacrifices have been made of labor, time and stock, and the cutting off of production has resulted in a lack of supplies. The result has been a return of liberal prices and the reward has come not to those who made the sacrifices, but to those who refused to make them and maintained the even tenor of their business, struggling through years of depression to keep their stock ready for the revival. We have no doubt that this course of affairs, which has so often been marked, will repeat itself once more in the revival of the market value of wool, and that those will win in the end who weather the storm which, during the present year, will strip the pelts from tens of thousands of sheep in every wool growing state in the Union.

Although in production the prize has generally fallen to the one who pursued his industry through thick and thin, there can be no doubt that it is the part of wisdom to rid the flock of all unproductive stock and throw out poorer animals until the aggregate number is much reduced. In a time of depression more than at any other time it is wise to possess nothing but the best. We notice that movements are now in contemplation which if carried out will decimate the flocks in some counties during the next few months. The Fresno *Expositor* is "informed that steps are being taken by certain wool growers and capitalists to erect an establishment in the vicinity of that village for the purpose of butchering sheep and placing the various portions of the animals in a marketable condition. The pelts will be saved; the horns and hoofs made into glue; the tallow rendered from the carcass and the residue made into soap. It is proposed to build an establishment capable of running through about 1,000 head per day. The estimated cost of such an establishment is $10,000."

The sheep growers about Visalia in Tulare county are agitating the same subject. It appears from a letter printed in the *Times* that they have been making inquiries concerning the probable value of sheep put through a mill of this kind. Mr. Solomon Sweet, to whom the search for information in this city was entrusted, writes as follows: "I am of the opinion that from $1 25 to $1.37½ can be realized by killing fat sheep. It is figured here that a fat sheep will yield, say 18 pounds of tallow; the pelt, immediately after shearing, 10 cents; a three months' pelt, say 30 cents; four months, 40 cents; five months, 50 cents. The carcass or flesh, after boiling all the fat out, can be made available for fattening hogs. The tallow, as an average, finds a ready market here at from six and a half to seven cents. Machinery for rendering, all complete, cost about $700."

According to the plans thus sketched it would seem that the sheep owners have in mind two plans, one which contemplates a large, fully equipped rendering establishment, glue and soap factory; the other a temporary rendering concern, requiring but small investment of capital. We do not know what are the prospects of action on either of these. As we understand it, the movements are only being talked about as yet. We mention them only as matters of news, adding as a general comment that we believe it would be wise to adopt some measure which would result in a weeding out of the flocks with as good return as possible for the rejected material.

Fairs in 1876.*

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

——*Officers of other Fairs will please send us dates, etc.

[Editorial Correspondence.]

The Centennial at Philadelphia.

The Grand Opening.

The inauguration of the great American Centennial exposition, commemorative of the hundredth year of our national existence, is now an accomplished fact. Everything connected with the "opening day" went off as per programme. The President, most of the leading dignitaries of the land, and all the foreign representatives at Washington were present to aid and give dignity and importance to the event. The great American Empire of Brazil was represented by the personal presence of her wise and popular sovereign and his suite. The Emperor preceded the President in his arrival upon the stand, and when the latter arrived, and in the presence of the vast waiting multitude extended the hand of friendship and recognition to his brother ruler, the shout which went up gave unmistakable evidence of the warmth of friendship and sympathy which exists between the two great leading nations of the American Continent.

The telegraph has informed the world of all the leading incidents of the occasion, and has, no doubt, told the readers of the PRESS how the dignitaries who were present, immediately after the conclusion of the speaking and singing, passed hastily to machinery hall, where the President, with his own hands, started the great Corliss steam engine, by which the fourteen acres of machinery in that building was set in all its varied and complicated motions. The exposition was, by that crowning act, fully inaugurated and put into practical operation.

Four Days After.

The exposition has now been four days in operation, and the sound of the hammer and the saw is still going on in all directions. In the fortissimo parts the music in the main exhibition room—by Gilmore's band—has decidedly the best of it; but when it comes down to the low, sweet solos of the cornet or flute, the noise of the artisans at their work is in the ascendant. Trains of cars are constantly arriving, loaded with goods which have been delayed. No less than 50 loaded cars entered the grounds on Thursday, and large numbers arrived on Friday and Saturday. Goods are also arriving by steamers and sailing vessels, and being transferred to the grounds by trucks. It will be many days—some weeks indeed—before all the exhibits are in. It is doubtful if everything will be in perfect order before the Fourth of July—the great anniversary day itself.

Still, all except the exhibitors themselves are more than satisfied with the progress which has been made. The display in the various buildings is extremely gratifying. In the main exhibition building, although many sections are still almost bare, or in great confusion, nevertheless the show is extremely rich and elaborate. Nothing ever before seen in this country will bear any reasonable comparison with the richness, taste and variety of the display.

Philadelphia Compared with London, Paris and Vienna.

Your correspondent has thus far endeavored to employ his time to the best advantage in securing a general idea of the exhibition throughout, with the view of being able to institute some comparison between its extent and that of other similar exhibitions abroad. London, Paris and Vienna have each had their turn, and the two former have repeated their first efforts—London once, Paris twice. A comparison of the statistics of those exhibitions shows favorably for Philadelphia—so far as area of exhibition space is concerned; and so far as your correspondent can learn from those who were present at the various European exhibitions the same advantage holds good in other respects also. The first great world's fair was held in London in 1851. We append a statement of the exhibition area of that and the subsequent European exhibitions, stated in acres and tenths of acres as follows:

England's World's Fair of	1851	18.8	acres
Paris " "	1855	22 1	"
London " "	1861	23 9	"
London " "	1871	25.6	"
Paris " "	1867	31.0	"
Vienna " "	1874	56.5	"
Philadelphia Centennial	1876	60 0	"

The Philadelphia Centennial exhibition area is made up as follows:

Main Exhibition Building	21.5	acres
Memorial Hall or Art Gallery	2.5	"
Machinery Hall	14.0	"
Horticultural Hall	2.0	"
Agricultural Building	10.0	"
U. S. Government Building	2 0	"
Total	52.0	acres

The balance—eight acres—needed to bring up the area to the figure of 60 acres, as given in the first above table, is made up as follows:

The Nevada State building, in which a complete five stamp quartz mill is shown in operation; a large building, erected by Gillinder & Sons, of Philadelphia, in which is shown the whole process of glass manufacture, melting, blowing, pressing, cutting, etc., with a large display of manufactured ware; the Women's pavilion, devoted to the exhibition of the handiwork of the women of the United States; an extensive building devoted exclusively to the practice and display of the photographic art; a

large building devoted exclusively to the exhibition of carriages, wagons, etc.; also several other minor show buildings, to say nothing of a large amount of open area occupied by the U. S. Government for the display ot military field equipments, the field telegraph, etc., which may properly be shown in the open air. These will more than bring up the floor space of the Philadelphia exposition to 60 acres—three and a halt acres more than the lsrgest European display, at Vienna, in 1874.

We may in very deed pronounce the exhibition a wonderful success—a real triumph for America. The mansgers of the exhibitiou, the people of the State of Pennsylvania, and cspecially ot the city of Philadelphia, msy well congratulate themselves that the energy, power and steady endurance which they hsve msnifested during the past two years, sgainst much indifference and all manner of hindrance and even opposition, has at last resulted in a most glorious triumph—a trinmph ot whicb the nation may well feel prond, a snccess which is accorded by the lips of thousands ot representative people from every nstion on the globe, who are here present to see and report in person.

It is now fully demonstrated thst the American Centennial exhibition will prove the grandest collection of the products of human industry, art snd taste which hss ever been presented to the world. Let us hope, also, that it will prove equally successful as a pecuniary enterprise. If it tails in that psrticular it will be becsuse the American people csnnot or will not appreciate and properly patronize an effort which is cminently worthy of their pstronage, snd which is cspable, by oompariug the achievements ot our people with those of others, of teaching everything in the wsy of human handicraft which is needful to learn, or which man, from observstion and study, can so attain.

The Centennial Grounds.

Fairmount park, the site of the Centennial grounds, is well known to all who are acqnainted in Philadelphia. The portion enclosed comprises about 260 acres. Some idea ot its form and topography may be learned from the diagram given in the issue of the PRESS of April 29th. The area is triangular in shape. The distance from one point of the triangle to each ot the others is about one mile in a direct line, and considerably over that by followiug the avenues and paths necessary to be traversed to reach the several points. The main entrance is approached from the city, along Elm avenue, by most of the city street oars, snd also by the Pennsylvania Central railroad. The cars of the latter pass their freight trains directly into the grounds, as seen by the diagram atoresaid, between the two offices.

The grounds are entered by 13 different gates, each of which is supplied with a greater or lesa number of self-registering turnstiles—one entrsnce, probably, for each of the original 13 States. Only a portion of the entrances are shown in our diagram. The main exhibition buildings are six in number, and cover, according to the table already given, an aggregate area ot over 50 acres. These sre supplemented by several other large and pretentious show buildings, some of which have already been mentioned. The total number of buildings within the enclosure is set down at 150, to which others are still being added. The larger number consists of the various State buildings, restaurants, beer and liquor saloons, newspaper offices, etc.

Magnificent Distances.

By further reference to the diagram, and reflection upon the distances and areas given, it will readily be realized that, as an exhibition ground, it is divided by magnificent distances as well as covered with mammoth structures. The nearest practicable distance between the main exhibition building or the machinery building, and the agricultural building, is about half a mile. The Government exhibition building and horticultural hall are also nearly as distant from those mentioned and trom each other. Hence a large amount of walking is requisite to simply make the round from one building to another during a single day, to say nothing ot treading the avenues and aisles of each separate building. Of these there are 11 miles in the main exhibition building alone.

Conveniences for Getting About.

For the convenience ot getting about, a narrow gauge railroad track has been laid, following, as close as possible, a course just inside ot the enclosure. By taking the cars upon this track a person may readily pass from one portion of the grounds to another for 10 cents. As a further convenience for getting through the main thoroughfares of the grounds and buildings, a large number, several hundred, of rolling chairs have been provided and stationed at intervals all through the grounds and in the main buildings, which oan be hired tor 60 cents an hour, or with a large reduction for a longer time, upon which a gentleman or lady can be seated and truudled wherever they may wish. By this meana the tired visitor, or even an invalid, may take a leisurely view ot the exposition, without the tediousness of personal locomotion, leaving their seat at any time when they desire to take a more close view of any particular object than can be obtained trom the chair. One of these chairs can be hired the entire day for tour dollars. For the turther convenieuce of visitors, restaurants, beer stands, booths and dairy stands, etc., are placed at close intervals all through the grounds and buildings. Soda, mead, milk, etc., can be had at their proper stands. Pure cold water can also be hsd now and then from living fountsins, so plsced as to interfere as little as possible with the profits of the beer sellers. The prices of everything inside the gstes is just about double that at the restaurants and saloous outside, on which account the lstter appear to be liberally patronized by those who find it necessary to be economical and don't feel like filling their pockets with lunches from home. Checks are tnrnished to all who desire to leave the grounds for a short time, good only for that day.

The State Buildings.

Referring once more to our diagram, the most of the vsrious State buildiugs are ranged along aud fronting the winding avenue which passes in the rear ot the Government building, their grounds extending back to the enclosing fence.

The California Building.

However, is within the second irregular sqnare beyond the C. T. A. tountain, with the British government building nearly in tront of and adjoining it. This building will not be ready for occupation before the middle of next month. It will be used ss headquarters tor California, Nevada and Oregon. Will give a full description of it at some future time. Mr. Williams, the Secretary of the Building Committee, srrived here from San Francisco on Thursday morning last and left for New York on the afternoon of Friday.

The Nevada Building

Is located between Elm avenue snd machinery building, and nesr the left hand corner of that building, as seen in the diagram. This building is being fitted up under the direction of Mr. J. C. Senderling. The structure is 60x40 feet in dimensions, and will be fitted up with a five-stsmp quartz mill in tull operation, with a Stevens pan and an eight foot settler. It will also contain a retort set in a furnace, and a double safety sage, with csr attached, furnished by Capt. Taylor, superintendent ot the Yellow Jacket company. A gallows frame snd guide will be erected to show the cage in actual operation, hoisting ore from the lower floor to the platform in front of the stamps. Sixty tons of ore is now on the way here to be worked, 20 tons each from the Ophir, California and Belcher mines. The bullion produced will be struck off in medals. The ore to be worked will mill an average of over $200 per ton. Mr. Senderling has met with many drawbacks in getting the mill under way. He applied tor space in the machinery building, wsa refused and assigned a piece of made land on the outside—a perfect swamp hole, which greatly hindered him and caused much additional expense in securing a proper foundation for his battery. He is deserving of credit tor pushing his way along under tbe many difficulties encountered. Hopes to have the mill runniug by the 19th inst.

The Pacific Coast Exhibits

Are fast assuming shape. The mineral exhibits from California, Nevada, Montana, Idaho, Oregon and Arizona, under charge ot Dr. H. R. Whitehill of Nevada, Mr. J. P. Woolman, commissioner trom Montana, and Mr. Thos. Donaldson, commissioner from Idaho, are in place but not yet labeled, and make a fine show. They will be more fully described in a future letter. These exhibits are in the Government building, adjoining the Smithsonian Exhibition under charge of Prof. William P. Blake, formerly ot California.

Mr. J. R. Scupham, in charge of the Central Pacific railroad's California products, cnriosities, etc., is fast getting his exhibition into shape. One carload was still to arrive on Saturday.

Mr. Schuman of Woodward's gardens is here, but has not yet got his cases fitted up.

Among other exhibits which I have casually noticed in passiug through the building, are photographic portraits trom Bradley & Rulofson, Yosemite views from Watkins, portraits from Taber and from Weston, Central American views trom Muybridge, and stereoscopic views from Riley.

Gustave Mahe, Kobler & Frohling, M. Keller &Co., exhibit wines. The big California grapevine is here, but no acceptable place has yet been assigned for it. The section of bark from the Big Tree has been set up near the grounds as an outside show

Judges from the Pacific Coast.

I have just learned that the following persons strom California have been appointed as Judges: Irving M. Scott, of San Francisco, on machine tools for iron, wood and stone; J. D. Hague, San Francisco, on miuing and metallurgy; George W. Heuston, on india rubber products and goods; Gen. H. M. Naglee, San Jose, on wines; James Bruce, Corvallis, Oregon, on agricultural machinery.

Goods are still coming. A train of seven car loads is now standing on the track near the Press headquarters, where I write. W. B. E.

Centennial Grounds, May 15th.

AMERICAN HARDWARE FOR AUSTRALIA.—At the time of our description of James E. Gordon's hardware establishment at 349 Market street, San Francisco, we noted the establishment of an agency of the house in Melbourne, Australia. Happening iuto Mr. Gordon's store the other day, we were shown an order for goods received from Melbourne, coveriug at least a thousand dollars' worth of American axes, locks and general hardware. We note this movement as of especial interest, because in the Australian markets English hardware has hitherto held sway. It is a matter of congratulation that American goods are gaining ground, and that this is being accomplished by one ot our local business houses.

The Insect on the Orange and Lemon Roots.

In answer to our request Mr. Leslie F. Gay, of Los Angeles, torwarded to us for examination a piece of a lemon tree root which was infested with the insects which he detected with a hand glass snd described in the PRESS tbree weeks ago. We received the specimen in good condition and the insects were discovered in grest abundance. We submitted the insects to Mr. Edwards, Vice President of the Academy ot Sciences and Mr. C. Mason Kinne, Secretary of the S. F. microscopical society. These gentlemen pronounce the insect a true *acarus*, but of a species believed to be undescribed hitherto. The conclusion from their microscopic study ot the anatomy of the insect is that it hss not oaused the trouble to the tree roots, because it has no apparatus fitted for piercing. In this respect it is wholly different from the phylloxera, which has a well defined and pointed, piercing proboscis. They believe that the insect merely lives in the matter which decays from some other canse. This is wholly at variance with the conclusions wbich Mr. Gay arrives at; but we are not sware that he has used high magnifving powers upon the insect. He announces that he has fonnd a cure for the trouble. If that be true snd he can restore a drooping tree or check the spread of the evil, whstever it be, wbich is working to destroy our semi-tropical fruit trees, he hss done valnable service, but so far ss killing this insect goes (except by curing the diseased oondition of tbe roots and thus giviug the insect no chance for life) it is of doubtful utility.

We give herewith an engraving of one of the insects sent us by Mr. Gay. It was drawn on the wood, from the microscope, by Mr. Kinne.

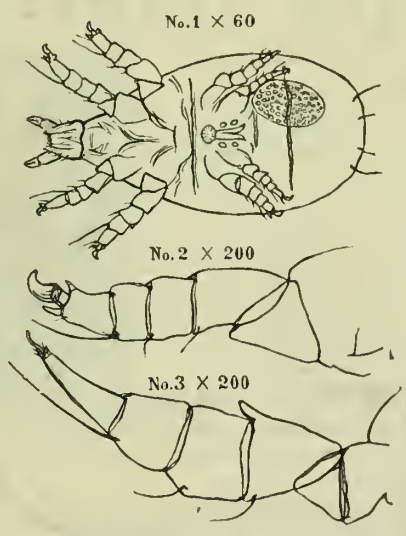


Figure 1 is enlarged 60 diameters, and sbows the general appearance of the animal when crnshed on a atide, which operation reuders the whole anatomy distinct. The mouth parts, consistiug of mandibles, labium snd palpi, the remarkably small posterior pairs of legs, the ova sac, etc., are shown; while Fig. 2 gives the npper anterior leg magnified 200 diameters, which is so placed as to be easily compared with the same leg of the barley acsrus referred to in the tollowing paper and shown in Fig. 3, witn the long sixth joint and process on the third joint.

The insects were shown at the last meeting of the S. F. microscopical society, and the following interesting paper containing his conclusions on the subject was read by Mr. Kinne:

To the Members of the San Francisco Microscopical Society—Gentlemen:

A few days since Mr. E. J. Wickson, ot the PACIFIC RURAL PRESS, handed me a portion of the diseased root of a lemon tree, sent him from Los Angeles by Mr. Leslie F. Gay, of that place, who has made some investigations regarding the cause of the immense destruction of orange and lemon trees in Los Angeles county, and embodied his doductions in a letter published in the RURAL PRESS of April 29th, in which he states that he has become satisfied that he has solved tbe riddle as to the cause of the trouble, and speaks of a cure which he will furnish at some future time. He describes the bark in which the disease is located as first turning yellow, then becoming wet and spongy, finally assuming a darker hue and decaying. Ot course the decay of the bark of the tree or root is sufficient to destroy the whole, and Mr. Gay, finding in aud on the mass of ulcerous vegetable matter an insect which he describes as appearing like a wiugless beetle, and a worm which stands on its head and gyrates its body to facilitate its eudeavor to pry into things, he concludea the little parasites are the cause of the disease and fiual death of the tree.

Placing a piece of the root under an inch and a half objective, myriads of minnte moviug specks, just visible to the naked eye, were found to be living animals with a plump, polished, oval body of a pellucid white hue, and a cursory examination, with Mr. Henry Edwards and Mr. Wickson, of their various parts, as well as their general appearance, was sufficient to define them as being a trne *acarus*, a genus of *arachinda*, they having the distinguishing features of a snout-like proboscis, perfect legs and transverse furrows. Crushing the *acarus* in order to observe the parts of the mouth and legs snd examining with a fonrth objective, the characteristics ot the common cheese mite are met with, and which sre familiar to most of you. The msndibles hsve the piucer-form claws, tbe reddish legs are inserted in two groups, snd the legs and body turnished with minute hairy bristles. The ova sac is well defined.

I have treated a few to a dose ot carbolic acid, rendering them transparent, monuted the same for your examinstion, and wonld call attention to several importsnt differences as compsred to a score or more of *acari* wbich I hsve seen or tonnd described. The anterior pairs of legs are of the usual size, perhsps a little lsrger, but the posterior pairs are in all cases dwarfed and hardly project to the edge ot the body, though perfect throughout. The terminal joints are provided not only with very tormidable claws, but with several auxiliary ones surrounding them, while the sixth joint, usually long and slender, is short aud nearly ss large as the others, all of which features are marked and permsnent, enough so to at least claim it ss being a new variety, in which Mr. Edwards concurs. In this connection I wonld also mention a single peculiarity which I hsve fonnd in an *acarus* which answers the description ot the *Acarus sacchari* (Hassall), in the most minute particulars. It wss tound intesting the barley and other feed in the stable of a gentlemen in this city recently, to an extent that the horses refused their tood, and on exsminstion the only difference to be discerned from the sngsr insect wss a pointed protuberance at the interior outer extremity of the third joint of the first pair of legs.

To return to the lemon and orsnge tree *acarus*. I desire to say that, reasoning from the knowu hsbits of its kindred, the general construction of its month parts, having a broad lsbium, with blunt points buttressed by a pair of palpi, which are, so to speak, soldered to the sides of the lip, the upper part ot the mouth beiug a pair of mandibles jointed to the head and movable, so as to form no doubt effective prebensile but not piercing organs, it would seem improbable tor the little parasite to be at all damaging to the welfare of the growth or life ot an otherwise healthy tree. In tact they might better be regarded as scavengers, offering their *mite* toward removing the result ot the disease brought about by irrigation or other causes. The statement of ex Governor Downey in the same issue of the RURAL PRESS, that, although be had not met with the so-called destroyer which Mr. Gay describes, yet his trees are also diseased, is additional testimony, if need be, to this end.

Remarking that I fear Mr. Gay cannot establish any connection between this *acarus* snd the little gymnastic worm he mentions, I will close by stating that if in trying to eradicate the parasite he has stumbled on a remedy for a disease of which I feel convinced they are the effect and not the cause, it is none the less to bis credit as a faithful experimenter, and he should lose no time in making it known tor the benefit of others interested.

C. MASON KINNE.

San Francisco, May 18th, 1876.

NOTES ON ANGORA WOOL.—The *Commercia Herald* has received a letter from H. M. FARR, head of the "Farr Alpaca oompany," of Holyoke, Massachusetts, together with three liberal samples of "angora cloth for dresses," "mohair serge," and "mohair figured coat linings," all mannfactnred trom California mohair. The *Herald* says these samples are extremely pretty and durable, showing beyond qnestion the superiority of the fleece obtained from the Angora goat. Mr. Farr says, however, that the material from which the samples were made was bnt of ordinary quality, and, owing to the shortness of the staple, he was compelled to work in a considerable percentage of ordinary wool. We quote some portions of his remarks: "There is no question ot finding a market for it if it can be grown in good quality; but there is a wide range of values for it. The short, kempy stuff is almost worthless for combing, while long hair, comparatively free from kemp, will sell readily for one dollar per pound. It wonld, therefore, be far more profitable to raise the best, and raisers should guide themselves accordingly. There are three points that shonld not be lost sight of: First and most important, length of staple; second, luster; third, quality or fineness of hair. I have worked some ot the California Angora goat hair, and have seen samples of several other lots, some of which were fair snd others too short to be worked with advantage. I wonld most strongly urge your goat raisers to *keep up the quality of their flocks* If they do this, success is sure; but if they do not, they will certainly be disappointed in the returns they will obtain for their mohair. There is scarcely any other product of the farm in which the difference in value is so great as between a good and bad article of mohair."

How to Catch the Duck Killer.

EDITORS PRESS:—In yonr last a querist asks who kills the ducks. The duoks are undonbtedly killed by skunks. Put all the yonng ducks in a coop; fasten them up so that nothing can get to them. Place an empty coop by the side of the one containing the ducks; set a steel trap in the empty ooop, suspend with a string a desd chicken or duck over the trap, some 15 inches above it, and you will soon know what kills the ducks.—TRUTH.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.); Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importor and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Practical

BOOKS

—AT—

BANCROFT'S.

A. L. Bancroft & Co. keep on hand a large stock of American and European Books, Suitable for

CIVIL ENGINEERS,

FARMERS,

MACHINISTS,

And Industrial Classes generally, and supply them, post free, at published prices; for particulars of which see catalogues, which will be forwarded on application.

A. L. BANCROFT & CO.,

721 Market Street, S. F.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

H. K. CUMMINGS. 1858. H. H. RALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

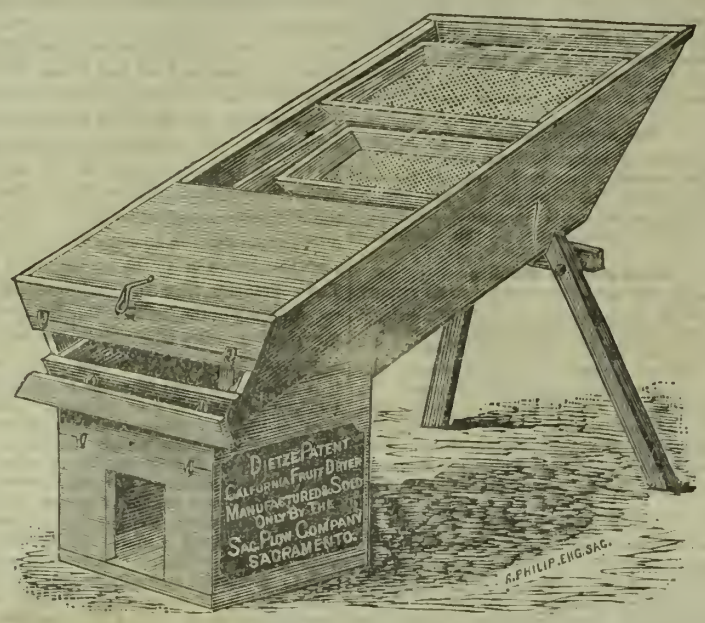
Our business being exclusively Commission, we have no interests that will conflict with those of the producer

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS Co., 609 Sacramento St., S. F. Send for Circular.

CALIFORNIA FRUIT DRYER.

DIETZ PATENT.



Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple in construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,

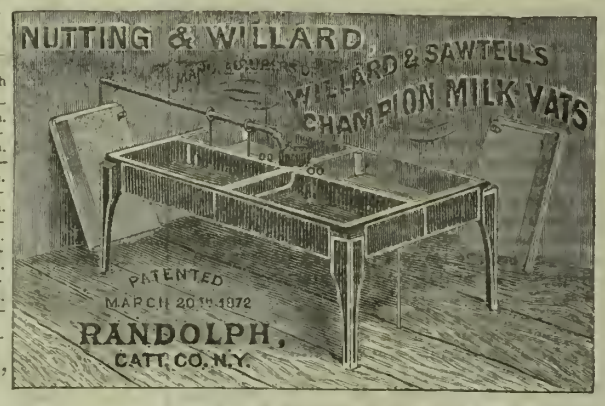
Sacramento City, Cal.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth, Capacity, Etc.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wide	12 gal'ns.	6 in.
1	6 ft 10 in. l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 8 in. l'ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns.	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	55 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	65 gal'ns.	9½ in.

*Four pans in set.



NUTTING & WILLARD,

SACRAMENTO, CAL.

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

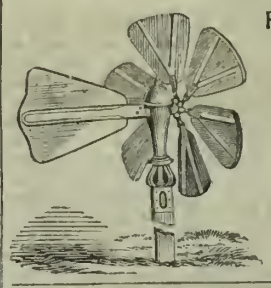
GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Ca

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair, makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy five years. ROWLANDS' ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD,

President Business College, San Francisco, Cal.

Live Stock Notices.

We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 500 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular.

LANDRUM & RODGERS,

Watsonville, Santa Cruz Co., Cal.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

THOROUGHBRED SPANISH MERINOS.

Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS,

Santa Clara, Cal.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, some fine Graded Cattle.

JOHN BREWSTER,

Galt, Sacramento Co., Cal

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes They "sow *like a charm*:" *no packing* of seed in the hopper, *no crushing* it, *no pausing* or *waste* at the ends, *no irregularity* in depth, *no springs* or *gearing* to wear out, *no "skips," no noise, no equal!* THE DOUBLE WHEEL HOE works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 9, or 12 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable COMPOUND MACHINE possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our NEW HORSE HOE, perfected after ten years of experiment, *saves* most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. **We must have a Live Agent in Every Town.**

Gloves Made to Order

At prices most economical to customers, at the **SACRAMENTO GLOVE FACTORY** of **I. W. Lusk**, Tenth St., between J and K Sts., Sacramento. None but the best quality of California tanned skins used. Ladies' and Gents' colored, plain and Indian dressed kidding and common gloves and mittens on hand, or made to order on short notice. ☞ Send your size or number and you can order by mail. Satisfaction guaranteed. Ladies, farmers, miners, engineers, and all requiring serviceable gloves are invited to call at the factory.

FRANK BROS. & CO.,

349 Market Street, - - - - - - - San Francisco, Cal.

WALTER A. WOOD'S

IMPROVED IRON MOWER.

23,507 were made and sold last year. Their immense sale and unprecedented success IN PRACTICAL FIELD WORK, fully establishes their superiority over all other machines for SIMPLICITY and PERFECTION of CONSTRUCTION.

WALTER A. WOOD'S

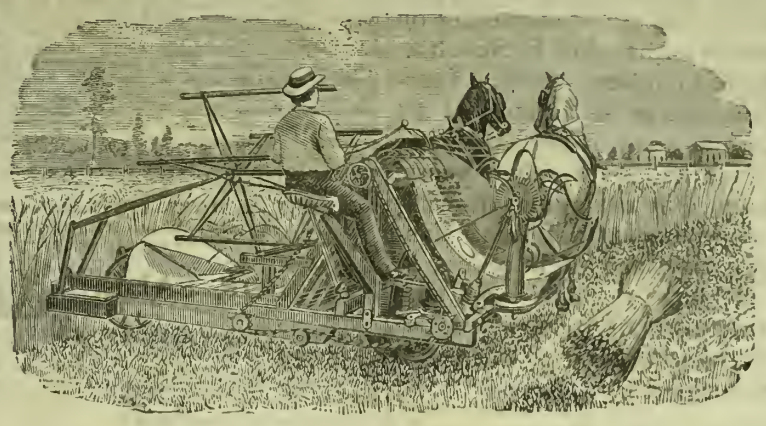
Chain Rake and Sweep Rake Reaper.

WALTER A. WOOD'S

Harvester and Self-Binder.

The Greatest Labor-Saving Machine of the Age.

COATES' LOCK LEVER SULKY RAKE.



WALTER A. WOOD'S HARVESTER AND SELF-BINDER.

THE CELEBRATED

La Belle Farm and Freight Wagon.

SWEEPSTAKES THRESHERS,

SPECIALLY IMPROVED FOR THE PACIFIC COAST.

HAINES' HEADER,

WITH ALL THE LATEST IMPROVEMENTS.

Chaplin & Tiffin's Revolving Rakes,

Warranted the Best in the Market.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

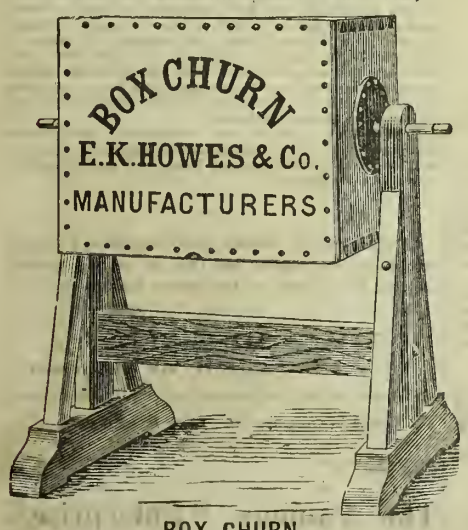
We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL

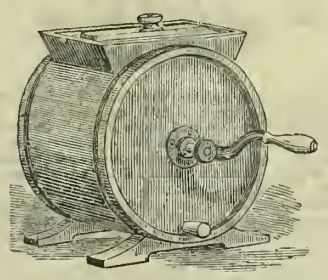
WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

E. K. HOWES & CO.,

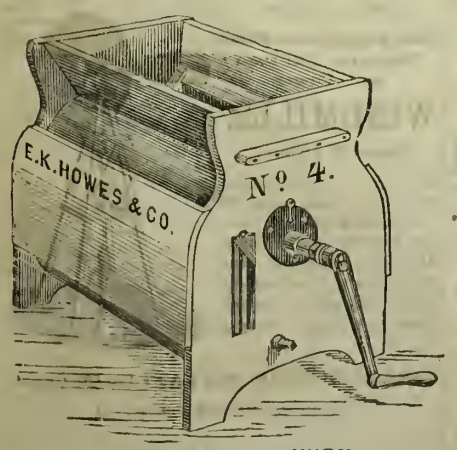
NOS. 118, 120 and 122 FRONT STREET, - - - - - SAN FRANCISCO.



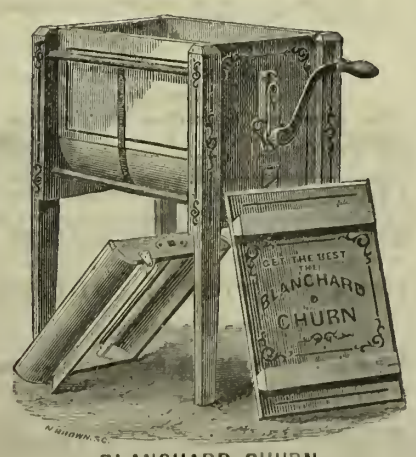
BOX CHURN.



CYLINDER CHURN AND DASHER.



THERMOMETER CHURN.



BLANCHARD CHURN.

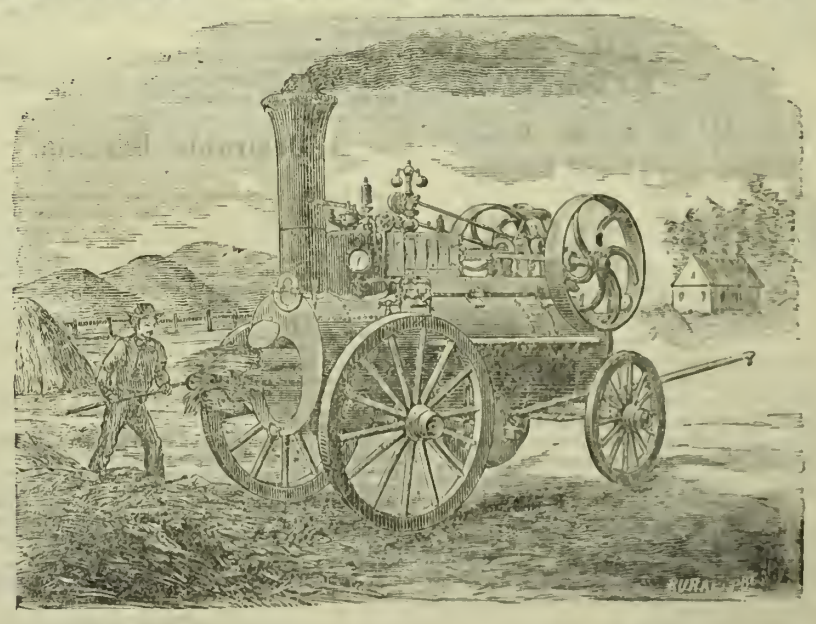
SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers and Molds, Butter Tubs, (35, 50 and 60 Pounds), Butter Kegs—Plain and Gal. Hoops—Wholesale and Retail.

Send for Price-List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world. They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the state, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific Coast, and all orders should be addressed to them.

SAN FRANCISCO, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street San Francisco, and corner Second and J Streets, Sacramento.

P36b76if MARCUS C. HAWLEY & CO.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

$250 A MONTH.—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., May 23d, 1876.

FOR WEEK ENDING MAY 9th, 1876."

HARNESS.—Charles H. Corey, San Jose, Cal.

DENTAL PLUGGERS.—Cassius M. Richmond and Alexander Werner, Jr., S. F., Cal.

CONCENTRATING TABLES.—John U. Tolles, Virginia City, Nev.

——"The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Collateral Loan and Savings Bank, N. E. Cor. Post & Kearny Sts., S. F.

The attention of all our readers is called to the objects for which this Association is incorporated, which are to loan money on collateral security, to receive money on deposit, and to transact a general banking business. The prime object, however, is to advance money on pledges of diamonds, watches, plate, furniture, etc., subject to the legal rates of interest—four per cent. per month. The Bank will also receive term deposits, of six and 12 months, subject to at least 30 days' notice before being withdrawn, and allow interest thereon at the rate of one and one-quarter per cent. per month, respectively. Such deposits will be loaned out only upon proper securities and pledges.

The Bank will also receive deposits subject to call or check, and upon such deposits no interest will be allowed.

Many larger banks of this description have for years been in successful operation in Paris, and in all the principal cities of Europe, and in the City of Mexico, under the patronage of their respective governments. The institutions in Paris loaned out during the year 1873 the enormous sum of 54,000,000 francs, or about $10,800,000. More recently similar institutions, or banks, have been organized in Boston and New York City, under special charters from the States of Massachusetts and New York. No city in the United States offers such splendid inducements for an enterprise of this character as the city of San Francisco, where people are subject to peculiar and sudden reverses of fortune. The quantity of jewelry, plate, and articles of value which are pledged in this city yearly as collateral security, is enormous.

The bank will be managed upon strict business principles; at the same time to its safety and profit and with liberal dealing to its customers.

The stock of the Bank is 30,000 shares, of the par value of $50 each; which, until further notice, will be sold at the Bank at $10 per share. This will give a cash capital of $300,000, which, loaned out at four per cent. per month, will give a monthly return of $12,000, or $144,000 per year; less rent and expenses, say $14,000, will leave $130,000 per year to be divided among the shareholders.

The dividends will be declared monthly after the first two months' business.

The Directory of the Bank is composed of well known business men of San Francisco, and as such gives to its customers a guarantee of fair and liberal dealing.

Subscriptions for a large amount of Stock have already been received, and subscription books for a limited number of shares, at $10 per share, will, until further notice, be open at the Bank.

SOLON PATTEE, President.
F. S. CARTER, Secretary.

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.
SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. TRARP—San Francisco.
B. W. CROWELL—California.
JOHN ROSTRON—California.
G. W. MCGREW—Santa Clara county.
J. M. MCARTHUR—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
J. W. RILEY—San Francisco.
WILLIAM PARTIN—Alameda county.
J. THOMAS JOHNSON—California and Nevada.
A. C. KNOX—El Dorado county.
F. A. SCOFIELN—Sonoma county.
C. N. WEST—Santa Cruz county.
E. B. HOPKINSON—San Francisco.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

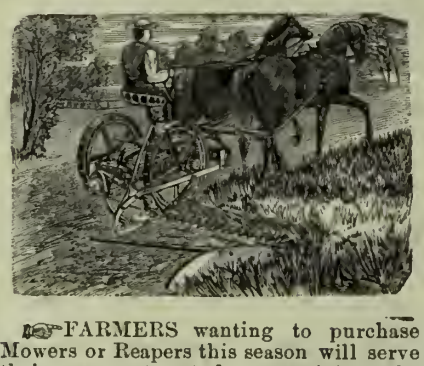
And Sole Agent for the Rathbone Range,

53 and 55 J Street, Sacramento.

The Scientific Press Engraving Company.

As has been announced in our columns, this company are prepared to do fine wood engraving on favorable terms. Mr. E. Schultze, managing partner, served a thorough tuition in his branch of art in Germany and New York, and has since had over seven years' experience in designing, drawing and engraving in California. Customers can place their orders in Mr. Schultze's hands with the full assurance of receiving satisfaction as to quality of work and fairness of prices.

McCormick's Mowers and Reapers.



☞FARMERS wanting to purchase Mowers or Reapers this season will serve their own interest by examining the McCormick Machines before purchasing. Every McCormick Machine sold is guaranteed to give satisfaction to the purchaser, if correctly set up, or purchase money returned.

McCormicks' character as the inventor of the Reaping Machine is national. Their experience in the manufacture of Mowing and Reaping Machines, and improving them, extends over the past thirty years. Their facilities for manufacturing are the most complete, and the capital invested in the business the largest of any manufacturers in their line in the world. This of itself is a safe guarantee to those who patronize them that they will be well treated.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
Pala, San Diego County, Cal.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.
CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR.....President
I. G. GARDNER.....Vice-President
G. P. KELLOGG.....Treasurer
A. W. THOMPSON.....Attorney
FERD. K. RULE.....Secretary

TRUSTEES:

J. D. BLANCHAR	S. F.	I. C. STEELE	San Mateo
G. P. KELLOGG	Salinas	G. W. COLBY	Butte Co
I. G. GARDNER	S. F.	A. WOLF	Stockton
CHAS. LAIRD	Salinas	C. J. CRESSEY	Oakland
URIAH WOOD	San Benito	J. C. MERRYFIELD	Dixon
A. B. NALLY	Santa Rosa	E. W. STEELE, S. L. Obispo	
A. W. THOMPSON	S. F.	C. S. ABBOTT	Monterey
A. D. LOGAN	Colusa	DR. T. FLINT	Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

Lands and Homes for Sale.

Fine Dairy Farm for Sale.

An undivided half interest in a fine Dairy Farm of 640 acres patented land, all inclosed. One hundred acres is good agricultural land, on which fine crops of timothy hay, potatoes, apples, etc., are raised. Balance affords fine grazing for 100 head of cattle and is also handsomely timbered. Plenty of fine running water at all seasons, and a valuable mill site and privilege are on the land. A good cash home market for all the produce of the place. Improvements, a comfortable house, three large barns, farming implements, wagons, etc. Also 40 head of good milch cows, 60 head of young cattle, horses, etc. There is also a large outside range of from 2,000 to 3,000 acres held under possessory title. Will be sold at a bargain. For particulars apply to

BERRY & CAPP, 418 Montg'ry St.,
Real Estate Agents and House Brokers

FOR SALE,

A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

For further parilculars, apply to

W. R. STRONG & CO.,
, 8 and 10 J St., - - - - Sacramento,

—OR—

STRONG & WILLIAMSON,
418 and 420 Clay St., - - - San Francisco.

FOR SALE,

A well improved Farm of 160 acres, with or without the crop, one-quarter of a mile from Linden, 12 miles from Stockton. Apply to

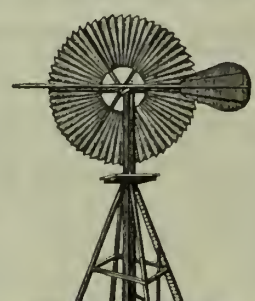
JAMES DRACE, Linden, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

CENTENNIAL WINDMILL.

CHEAPEST. MOST DURABLE.



I am now selling this Windmill at prices less than a corresponding grade of mill has ever been offered in this market, therefore I claim it is the CHEAPEST.

The Wheel is a solid rosette, constructed of the best material. All the bearings run in wood, and can never cut or grind if left without oil for a few days.

The Crane, or Turntable, is composed of wrought and cast iron, combined so as to secure all the strength of the material used. The Hub and Crank Flange are not fastened by keys or pins, but cast on to the shaft, and cannot come off or become loose. For these reasons I claim it is the MOST DURABLE.

The Rosette Wheel has more power than any other of the same diameter. The Cross-vane is easily operated, and perfectly controls the mill. These mills can be set up by any person, as there is nothing complicated in their construction.

PRICES:

10-foot Mill, Rosette Wheel	$75.00
12-foot " " "	90.00
14-foot " " "	125.00

Tanks Built to Order. Pumps of the best make on hand and for sale by

E. O. HUNT,
37 Fremont Street, San Francisco.

☞ Save the Commission to Agents by Purchasing Direct from the Manufacturer.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.
CAPITAL, - - - - - - - - - $100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER
Directors:—Wm Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

1845. 1876.

CHARTER PERPETUAL.

STRICTLY MUTUAL.

ECONOMY! SECURITY!

Mutual Benefit Life Insurance Company,

NEWARK, NEW JERSEY.

Assets, January 1st, 1876,

$31,085,011.11.

LEWIS C. GROVER.....President.
JAMES B. PEARSON.....Vice-President.

EDWARD A STRONG.....Secretary.
BENJ. C. MILLER.....Treasurer.
B. J. MILLER.....Actuary.

The following is a summary of the business of this company from May 1, 1845:

Total Receipts	$81,149,507 76
Paid Losses and Endowments	19,284,541 48
" Dividends or Return Premiums	19,224,524 15
" Surrendered Policies	4,284,344 82
" Expenses — Management, Commissions, Taxes, etc	8,167,913 05
Ratio of expenses	8.60 per cent.

These results are more favorable to the Insured than those presented by any company in the world.

ALL KINDS OF APPROVED POLICIES ISSUED.

☞Dividends paid annually, or they can be applied on the Accelerative Endowment Plan, ORIGINATED BY THIS COMPANY, to which particular attention is called.

ACCELERATIVE ENDOWMENT PLAN.

THE plan is intended to meet the wants of those who wish protection for their dependents in case of premature death, and at the same time to make a wise provision for themselves in the event of surviving the productive period of life.

The plan proposes that instead of using dividends in reduction of the annual premium, the insured may, at his discretion, pay his premiums in full in cash, and surrender his dividends to the company. In consideration of this surrender, the company will agree to pay the sum assured when the policy-holder shall have attained a certain age, or at his previous death, instead of at death only, thus enabling him to procure an Endowment Policy at the usual rates charged for policies payable at death only.

If the policy is already an endowment, payable at a given age or previous death, the surrender of the dividend will enable the company to agree to pay the policy at a still younger age.

☞The Mutual Benefit Life Insurance Company issues Policies insuring the lives of healthy persons residing in any part of the United States.

JAMES MUNSELL, Jr.,
Agent of Insured,
And Acting Agent for persons desiring Life Insurance.
224 Sansome St., San Francisco.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,

Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,
Livermore, Alameda County, Cal.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco
eowbp

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, May 24th, 1876.

There is little to note in trade. The Wheat market has maintained itself firmly, although transactions are not in large amount.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday......	9s 8d@9s 10d	9s 10d@10s 4d
Friday.........	9s 8d@9s 10d	9s 10d@10s 4d
Saturday.......	9s 8d@9s 10d	9s 10d@10s 4d
Monday........	9s 8d@9s 10d	9s 10d@10s 4d
Tuesday........	9s 8d@9s 10d	9s 10d@10s 4d
Wednesday....	9s 8d@9s 10d	9s 10d@10s 4d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 6d@12s 9d	12s 9d@13s —
1875................	9s —@ 9s 2d	9s 2d@ 9s 6d
1876................	9s 8d@ 9s 10d	9s 10d@10s 4d

It will be noticed that the cable has maintained itself without change throughout the week.

The Foreign Market Review.

The *Mark Lane Express*, of May 22d, notes the continuance of conditions unfavorable to the growing crop and the consequent improvement in demand for cargoes. It says:

"The present aspect of the country, although not alarming, is not calculated to afford farmers much satisfaction. Light lands bear fairly promising crops but on heavy soils the crops are poor. We incline to the idea that with the cessation of the cold winds and with a little warm rain, the crops will fairly recover. The country markets were almost without exception dearer at the close of last week. Trade in London has been marked with considerable firmness, and with a steady demand for the Continent. Wheat has improved a shilling per quarter. The continuance of export inquiry and the steadiness with which cargoes off the coast are taken for the Continent, show that the request is based upon a genuine foundation, and the leading feature of trade has been considerably strengthened thereby. In addition to the inquiry for Wheat on the spot and cargoes off the coast, the demand for the Continent has extended to cargoes on passage from Australia and California.

"It is proper to supplement the foregoing with the statement that the weather has moderated greatly, the thermometer rising to 71, and to-day showers have fallen."

Freights and Charters.

The engagement of vessels for the coming Wheat crop continues. Prices are ruling same as last week, £3@£3 5s being the ruling prices. There are now 12,696 tons in port engaged for future Wheat loading, 13,922 tons for immediate loading, 8,195 tons of engaged miscellaneous tonnage and 16,264 tons disengaged tonnage of all kinds. The engagements of the week have been as follows: Br bark *Albuera*, 653 tons, Wheat to Cork for orders, U. K., £3. Br bark *Van Diemen*, 1,051 tons, Wheat to Cork for orders, new crop loading, prior to arrival, private; Ital bark *Marina Rocca*, 717 tons, Wheat to Cork for orders, new crop loading, prior to arrival, private; ship *Rufus E. Wood*, 1,476 tons, Wheat to Liverpool, £2 17s 6d, Cork, U. K., £3, Continent, £3 5s; Br ship *Respigadera*, 1,629 tons, Wheat to Liverpool, July loading, prior to arrival, private; Br ship *Gryfe*, 1,029 tons, Wheat to Cork, U. K., private; bark *Martha Davis*, 871 tons, Wheat to Liverpool, at £2 17s 6d.

Wheat at Stockton.

The Stockton *Independent* gives the following notes of the trade in that city: We report sales of about 1,000 tons of Wheat ranging from $1.55 to $1.60. We also report a sale of 400 tons of choice Wheat from Gawne's warehouse to a Sacramento miller at full figures, and from present indications the old crop will all be disposed of before July 1st, when we may look for a lively business with the new crop, as it is well known that a large number of vessels are under engagement for July and August. Wheat and flour are evidently getting scarcer down the valley, as Sperry & Co. are shipping daily large quantities of flour all along the line of the Stockton and Visalia railroad as far south as Caliente. Our farmers are now showing a very commendable disposition to meet the market and get cleaned up for their new crop. We can also report a reduction of freights on both Wheat and Flour from Stockton to San Francisco; on Wheat, a reduction from $20 to $15 by car, and on Flour and Mill Feed from $25 to $20. The cool, dry weather for the last 10 days has improved the Grain on the black adobe soil about Stockton very much, and many fields of Wheat that were expected to be cut for Hay 10 days ago will now turn out a fair average crop, and it is thought by some of our most intelligent farmers that the crop on the black adobe soil will exceed that of 1875.

Wool Items.

The San Francisco *Post* gives the following: The sales of the week by three prominent houses in this market have been 1,000,000 lbs, 690,000 lbs, and 145,000 lbs, respectively. Another house reports sales of 35,000 lbs choice Colusa, at 18½c; 20,000 lbs short heavy at 11@13c ⅌ lb. Telegraphic reports received this morning from various parts of the State say that the amount of Wool forwarded from the country between Bakersfield and Tulare this spring is 7,462 bales, or 3,425 043 lbs. Of this the larger portion has been shipped from Delano, and includes about 3,128 bales of this year. This does not include Tulare shipments. There has been about 100,000 lbs of Wool shipped from Merced for the season so far, and there is probably as much more awaiting shipment. At Hill's Ferry there has been shipped 3,000 bales up to date. The greater portion of the Wool clip in this vicinity is a year's growth, and is of good average grade. There has been about 140,000 lbs of Wool shipped from Red Bluff this spring. The usual spring clip marketed there will exceed 1,000,000 lbs. Not half the Wool is in yet. The Wool this spring is rather light, from some unknown cause, prices ranging from 13@17c ⅌ lb. The Wool clip of Butte county will amount to over a million and a half pounds, and is of much finer quality than that of last year.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week May 3.	Week May 10.	Week May 17.	Week May 24.
Flour, quarter sacks	34,703	21,465	34,912	29,349
Wheat, centals......	22,406	59,330	57,285	25,632
Barley, centals......	16,283	14,454	11,825	25,897
Beans, sacks........	1,716	944	1,521	1,201
Corn, centals........	1,415	4,043	3,803	3,578
Oats, centals........	207	1,071	1,753	3,342
Potatoes, sacks......	6,828	10,091	5,262	11,121
Onions, sacks.......	130	822	128	779
Wool, bales.........	8,476	8,643	8,072	7,260
Hops, bales.........	19	98	161	67
Hay, bales..........	951	1,291	1,072	1,321

Bags—Wheat Bags are firmly held at 13c. We are informed of large sales for July delivery at this price. There have been jobbing sales at 13½c.

Beans—Beans are in excessive supply and prices are low. There are large amounts waiting sale, but buyers are few. We note a sale of 22 sks large Butter at $2.

Barley—Barley quotations are unchanged. We note sales: 715 sks good Bay Feed at $1.15; 1,200 do do, $1.15, gold; 200 sks Coast Feed, $1.12½, silver; 200 sks Coast Feed, $1.12½, silver; 1,835 sks choice Feed, in two lots, $1.15, gold; 400 sks choice Feed at $1.16¾.

Corn—Corn is quotable a little higher. We note sales: 516 sks choice large Yellow at 1.17½ ⅌ ctl, one quarter silver; 300 sks good small Bay at $1.22½ ⅌ ctl, silver.

Dairy Produce—Butter and Cheese are plenty and unchanged. Finest selections of Butter are worth 30c.

Eggs—Eggs are a point lower than last week.

Feed—New Hay is coming in freely. The range is from $8 to $16 per ton, the latter nominal for choice old Wheat. Sales, 38 tons new stock at $9; 34 do do, Wheat and Oat, $10; 38 do do, $10.75; 33 do poor Barley, $8.50; 22 do Wild Oat, $13; 46 do poor new Barley at $9; 22 do Wheat at $15; 49 do ordinary $9.50; 41 do fair do, $10; 77 do fair new Wheat and Oat, $11; 20 do Wheat at $15; 22 do Oat at $13, and 46 do poor new Barley at $9 per ton.

Fruit—Strawberries, Cherries and Gooseberries are cheaper. The market is very abundantly supplied with Cherries at lower rates than usual, notwithstanding short crops in some localities. The first Raspberries of the season were received yesterday from John Woodward and W. J. Wilson, of Newcastle, Placer county.

Fish—Salmon is again abundant, and single Fish can be purchased at 40@50c each. Other Fish are generally cheaper.

Hops—There is no change in price. We note a sale of 25 bales Russian River at 10½c. The New York market for the week ending May 12th is reviewed by Emmett Wells as follows:

"The transactions continue rather small, the cool weather restricting the demand from brewers. The export trade is also light, though we think there is a fair prospect of an early resumption in this branch of the business, as we see by late reports from Europe that the roots and vine in some of the English plantations show signs of weakness. Should later news confirm the reports, there is no doubt but that all Hop markets will be favorably influenced thereby. England can hardly stand another bad crop, such as last year's, without her brewers feeling the usual alarm incident to short supplies and consequent high prices."

Oats—Oats are unchanged. We note sales: 200 sks choice Humboldt at $2.50; 300 good Feed, $2.25 per ctl, half silver in both lots; 30 sks good Feed, $2.32½, half silver; 50 sks choice, $2.55.

Onions—Onions are lower. The new crop is coming in freely and old are laid aside. Sales of 70 sks choice Union City at $2.25 per ctl; 85 sks choice old, $2.25. New Onions are selling at $1.25@1.50 per ctl.

Potatoes—Potatoes have sold generally at the low rates last quoted. New Potatoes are plenty and cheaper. We note sales of old Potatoes as follows: 180 sks good Humboldts on the wharf at $1 per ctl; 400 sks Tomales, $1@1.17½ per ctl; 300 sks Tomales, $1.10@1.15; 150 sks good Tomales, $1.

Provisions—Fresh Beef is abundant, and best quality is lower. The market is overstocked with Mutton of fine quality. Hogs are slightly lower, but the supply of good quality is light. There is a moderate demand for cured and smoked Meats. Lard is active at last week's prices.

Poultry—The market is rather weaker than last week, and quotations are reduced as shown in our tables.

Vegetables—The supply of early Vegetables is increasing. Summer Squash and String Beans are cheaper. Asparagus is advanced considerably. The first Green Corn of the season came into market Monday, but from its youthful appearance was evidently not intended for use.

Wheat—Wheat has been firm at last week's prices. We note sales: 1,100 ctls choice Milling, $1.75; 1,200 sks fair Milling, $1.67½; 3,000 do choice do, $1.73¾; 1,000 ctls Coast Superfine, $1.62½; 12,000 sks good Milling, to be delivered at Vallejo, $1.62½; 1,000 sks do, $1.62½; Shipping grades, $1.60@1.65; and choice Milling, $1.70 to $1.72½; 100 sks Superfine, $1.57½, half silver; 680 do choice Santa Clara Milling, $1.75; 1,200 ctls good Milling, $1.67½; 3,000 do choice do, $1.73¾; 2,300 sks choice Milling in two lots, $1.75 per ctl.

Wool—There is no change in the Wool market. Northern Wool is arriving freely and securing the top quotations. We note sales of 430,000 lbs. at 12@18c, according to quality; 9,000 lbs. short, 12c; 9,000 lbs. Northern, 19c; 2,400 lbs. Northern, 18c; 176,000 lbs. at 14½@17½c. The Eastern markets are telegraphed as follows:

New York, May 20th.—In this market the sales still continue mostly small, though an exceptional transaction of importance is occasionally made when extra inducements are offered by holders. Receipts of new spring California continue liberal, and the quantity of Texas arriving is increasing. Prices in consequence are favorable to buyers. Sales are 110,000 lbs. new Spring California at 19@25c; 38,000 lbs. Fall do, 14@15c; 1,500 lbs. Eastern Texas, 17@22c; 31 000 lbs. super pulled, 35@37c; 136 bales Cape, for export to Canada, 30,000 lbs. do skins, 20 bales Donskoi, 25,000 lbs. new spring California, 25 bales fall do, 8,000 lbs. pulled do, 12,000 lbs. Oregon, 100,000 lbs. Western Texas, 30,000 lbs. X and XX Ohio fleece, 3,500 lbs. Vermont do, 5,000 lbs. fine scoured, 57 bales super pulled, 13 do X do, 17 do No. 2 do, 10,000 lbs. No. 1 do, on private terms. The new spring Texas which is arriving is held at 16@14c, a decline of about 33½ per cent. from rates ruling at the time of last report.

Boston, May 20th.—During the past week the demand for Wool has been fair, but sales were mostly of California Wool, amounting to 836,000 lbs. of that description at 14@15c for spring and 15@18c for fall. The principal sales of new spring Wool were at 20@25c, the latter being the outside figure for best lots arriving, except a few fancy clips. New spring clips are arriving quite freely, and receivers are free sellers at current rates. There is very little inquiry for fleeces, and the sales for the week are the smallest for some time. The stock of Ohio is quite slim, but prices cannot be quoted over 38@40c for X, and 40@42½c for XX, good average lots; and Michigan and Wisconsin fleeces are selling at 35c. The sales for the week of all kinds of fleeces aggregate only 75,000 lbs., and holders are anxious to close up their old stock, but there are no buyers.

GENERAL MERCHANDISE.

[WHOLESALE.]

Wednesday m., May 24, 1876.

BAGS.	
Eng. Stand Wht..	— @13
Neville & Co's... Hand Sewed....	— @13
24x36..............	— @—
24x40..............	— @—
Machine do 24x40.	— @14½
" " 23x40.	14 @—
" " 22x40.	13½@—
" " 22x36.	12½@13
Flour Sacks ½s...	9½@11
" " ¼s.....	6 @ 7
" " ⅛s......	4½@ 5
Hessian 60-in......	12¼ @14½
do 45-in......	— @10
do 40-in	8½ @9
Wool Sacks, 3½ lbs.	45 @50
do 4 ".	50 @52½
Stand. Gunnies...	— @15
single seam do..	— @—
Bean Bags........	7½@ 8
CANNED GOODS.	
Asst'd Pie Fruits in 2½ lb cans.	2 75 @ 3 00
do Table do...	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl..	— @ 3 50
Sardines, qr box	1 65 @ 1 90
do hf boxes	3 00 @— —
COAL—Jobbing.	
Australian, ⅌ ton	— @10 50
Coos Bay........	8 00 @10 00
Bellingham Bay.	— — @ 8 50
Seattle....	10 00 @— —
Cumberl'd......	—18 00@22 00
Mt. Diablo......	6 25 @8 25
Lehigh...........	— — @22 00
Liverpool	10 00 @11 00
West Hartley...	— — @14 00
Scotch...........	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl.	10 50 @12 00
Charcoal, ⅌ sk...	75 @ —
Coke, ⅌ bbl......	— @ 60
COFFEE.	
Sandwich Island	— @ 21½
Costa Rica per lb	22½@ —
Guatemala.......	— @ 22½
Java.............	— @ 31
Manilla..........	— @ 21½
Ground in cs....	25 @ —
Chicory...	27 @ —
FISH.	
Sac. Dry Cod, new	4 @ 4½
cases.........	6 @ 7
do boneless....	8½@ 10
Eastern Cod.....	8 @ 8¼
Salmon in bbls..	7 25 @ —
do ½ bbls	3 75 @4 00
do 2 lb cans..	2 50 @ —
do 1 lb cans..	1 35 @1 40
do Col. R. ½b.	5 00 @5 50
Pick. Cod, bbls.	22 00 @ —
do ½ bbls	11 00 @ —
Mack'l, No. 1, ½bls	11 00 @ —
" Extra....	— @12 00
" in kits....	1 90 @2 25
" Ex mess.	3 50 @4 00
" Ex mess. ½bs	— @12 00
Pic'd Herr'g, bx..	3 00 @ 3 50
Bost. Sm'k'd Her'g	40 @ 50
LIME, ETC.	
Lime, S'ta Cruz, ⅌ bbl..........	2 00@ 2 25
Cement, Rosendale, do........	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills.....	3 00@ 3 25
Land Plaster, ⅌ ton.............	10 00@12 50
MISCELLANEOUS.	
Pulu...... ....—	@ 7½
NAILS.	
Assorted size, keg	3 75 @4 00
OILS.	
Pacific Glue Co Neat F't No. 1.	1 00 @ 90
Pure............	— @ —
Castor Oil, No. 1..	— @1 15
Baker's A A.....	— @1 15
Cocoanut........	52 @ 55
Olive Plagniol..	5 50 @5 75
do Possel......	4 75 @5 00
Palm lb..........	9 @ —
Linseed, raw....	— @ 70
do boiled.....	— @ 75
China nut in cs..	65 @ —

Sperm, crude....	1 60 @1 65
do bleached..	1 90 @2 25
Coast Whales...	47½@ 50
Polar, refined....	— @ 50
Lard............	— @1 20
Oleophine	— @ 28
Devoe's Bril't...	25 @ 27
Long Island....	— @ 25
Eureka...........	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive............	— @3 50
Downer Kerose'e	— @ 37½
Elaine............	37½@ —
Gas Light Oil ..	23 @ 25
PAINTS.	
Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk............	— @ 1½
Paris White.....	— @ 2½
Ochre...........	— @ 3½
Venetian Red...	— @ 3½
Red Lead........	10 @ 11
Litharge.........	10 @ 11
Eng. Vermilion	— @1 25
Averill Chemical Paint, per gal. White & tints.	2 00 @2 40
Green, Blue & Ch Yellow..	3 00 @3 50
Light Red....	3 00 @3 50
Metallic Roof.	1 30 @1 60
RICE.	
China No. 1.. ...	5⅞@ 5½
Hawaiian, ⅌ lb..	7½@ 7¾
Carolina, ⅌ lb..	10 @
SALT.	
Cal. Bay, per ton	10 00@14 00
do Common..	5 00@ 7 00
Carmen Island..	12 00@15 00
Liverpool fine..	22 50@25 00
SOAP.	
Castile ⅌ lb... ..	10 @ 11¼
Common brands..	4½@ 6
Fancy do ..	7 @ 9
CANDLES.	
Grant's..........	16½@ 17
Mitchell's........	20 @ 22
SPICES.	
Cloves ⅌ lb......	45 @ 47½
Cassia...........	23½@ 26½
Citron...........	28 @ 30
Nutmeg..........	95 @ 97½
Whole Pepper...	14½@ 1½
Pimento.........	16 @ 17½
Gr'nd Allsp pr dz	— @1 12
do Cassia do ..	— @1 50
do Cloves do..	— @1 50
do Mustard do	— @1 20
do Ginger do..	— @1 00
do Pepper do..	— @1 00
do Mace do...	— @2 00
Bowen's Pure Ground ⅌ lb	— @ 50
SUGAR, ETC.	
Cal. Cube per lb..	— @ 1¼
Circle A crushed	— @ 12
Powdered.......	— @ 12¼
Fine crushed...	— @ 12
Granulated......	— @ 11½
Golden C........	— @ 10½
Hawaiian........	10 @ 11
Cal. Syrup in kgs	— @ 62½
Hawaiian Molasses............	25 @ 27½
TEA.	
Oolong, Canton, lb	19 @ 25
do Amoy...	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune .	60 @1 00
Gunpo'der, Cant.	75 @1 00
do Pingsuey	50 @ 90
do Moyune.	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune..	65 @ 85
Japan, ½ chests, bulk...........	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½&1 lb paper	30 @ 55
TURPENTINE.	
Eastern..........	51½@55

S. F. RETAIL MARKET RATES.

Wednesday m., May 24, 1876.

POULTRY, GAME.	
Chickens.........	50 @1 00
Eggs, Hens.....	35 @ —
do Ducks'.....	— @ 30
Turkeys, ⅌ lb..	30 @ —
Ducks, each.....	1 00 @1 25
Geese, wild, pair.	— @ —
Tame, ⅌ pair..	3 00 @4 00
Snipe, ⅌ doz....	— @ —
do English..	— @3 00
Quail, per dozen	— @ —
Prairie Ch'k's, pr	— @ —
Hares, each ...	25 @ 35
Rabbits, each...	37 @ 50
Squirrels do.....	10 @ 15
Hams, Cal. ⅌ lb	16 @ 20
FISH, MEATS, ETC.	
Flounder, ⅌ lb....	12 @ 15
Salmon, ⅌ lb....	— @ 5
Smoked.........	— @ 10
Cod Fish, lb......	12 @ 15
Lake Big. Trout.	— @ 35
Beef, tend, ⅌ lb.	20 @ 25
Corned, ⅌ lb..	8 @ 10
Smoked, ⅌ lb..	— @ 15
PorterHouseSt'k	20 @ 25
Sirloin do........	15 @ 18
Round do........	10 @ 12
Pork, rib, etc.. lb	12½@ 15
Chops, do, ⅌ lb	15 @ 20
Veal, ⅌ lb.	12½@ 15
Cutlet, do.....	20 @ 25
Mutton-chops, lb	6 @ 9
Leg Mutton, ⅌ lb	10 @ 15
Lamb, ⅌ lb......	12 @ 15
Antelope.........	15 @ 20
Tongues, beef...	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, lb	12½@ —
Bacon, Cal., ⅌ lb	18 @ 20
FRUITS, VEGETABLES.	
Apples, pr lb....	10 @ 20
Pears, per lb.....	— @ —
Apricots, lb.	— @ —
Peaches, lb......	— @ —
Plums...........	— @ —
PineApples, each	75 @1 00
Grapes...........	— @ —
Bananas, ⅌ doz..	75 @1 00
Muskmelons	— @ —
Watermelons...	— @ —
Blackberries....	— @ —
Cal. Walnuts, lb	— @ 20
Cranber'es, Org.,	— @ —
do Eastern qt.	— @ 25
Huckleberries..	— @ —
Strawberries, lb	10 @ 20
Raspberries, lb.	— @ —
Gooseberries. ..	10 @ 15
Currants.........	— @ —
Cherries, ⅌ lb...	10 @ 50
Nectarines. ...	— @ —
Pomegranates...	— @ —
Oranges, ⅌ doz..	50 @1 25
Lemons..........	50 @ 75
Limes, per doz..	— @ 25
Figs, dried Cal.	12½@ 15
Figs, Smyrna, lb	25 @ 35
Asparagus, lb..	5 @ 8
Artichokes, doz.	50 @ 75
do Jerusalem..	— @ 8
Beets, ⅌ doz.....	20 @ 25
Potatoes, ⅌ lb...	2 @ 3
Potatoes, sweet..	— @ 6
Broccoli, each..	10 @ 15
Cauliflower..	10 @ 15
Green Peas ⅌ lb.	3 @ 5
Cabbage, per hd..	15 @ 20
Oyster Plant, bn	— @ 12½
Carrots, ⅌ doz.	— @ 25
Celery, ⅌ dz.....	75 @1 00
Cress, ⅌ doz bun	20 @ 25
Onions..........	4 @ 5
Turnips, ⅌ doz bunches	— @ 25
Brussels Sprouts	— @ —
Eschalots........	— @ 35
Dried Herbs, doz	30 @ 50
Garlic ⅌ lb......	12½@ —
Green Corn, doz.	— @ —
Lettuce, ⅌ doz..	25 @ —
Mint, ⅌ bunch.	— @ 12½
Mushrooms, ⅌ lb	25 @ 35
Horse radish, ⅌ lb	15 @ 25
Okra, dried, ⅌ lb	40 @ 50
Pumpkins. ⅌ ..	5 @ 8
Parsnips, doz .	— @ 25
Parsley	12½@ —
Pickles, frsh. ⅌ lb	— @ —
Radishes, doz..	20 @ 25
Sage.............	— @ 25
Marrowfat, do	1½@ —
Hubbard, do	— @ —
Mangoes, ⅌ doz.	— @ —
Spinage ⅌ bskt.	— @ 12½
Rhubarb.........	4 @ 6
Green Chilies...	— @ 25

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday m., May 24, 1876.

BEANS.	
Bayo, ⅌ ctl......	5 00@ —
Butter..........	1 50@2 25
Pea.............	1 92½@ —
Pink............	— —@2 50
Sm'l white....	1 85@2 00
Lima............	1 90 @2 15
BROOM CORN.	
Common, ⅌ lb..	2 @ 3
Choice, do ..	4 @ 5
COTTON.	
Cotton, ⅌ lb.....	15 @ 18
DAIRY PRODUCE, ETC.	
BUTTER.	
Cal. Fresh Roll per lb	22½@ 27½
Point Reyes.....	— @ 30
Firkin...........	25 @ 27½
W'st'n Reserve.	16 @ 20
New York.......	— @ —
CHEESE.	
Cheese, Cal., lb..	10 @ 15
do Old.........	— @ —
Eastern	15 @ 17
EGGS.	
Cal. fresh ⅌ doz	27½@ —
Ducks'...........	— @ 25
Oregon........ ..	— @22½
Eastern.........	21 @ 23
FEED.	
Bran, per ton....	— — @17 00
Corn Meal.......	27 50 @28 00
Hay	8 00 @16 00
Middlings	22 50 @— —
Oil cake meal...	— — @37 50
Straw, ⅌ bale.	50 @ 60
FLOUR.	
Extra ⅌ bbl....	5 25 @5 87½
Superfine........	4 50 @4 75
Graham, ⅌ bbl .	5 50 @ —
FRESH MEAT.	
Beef 1st quality lb.	6½@ 7
Second do'....	3½@ 4
Third do.......	2 @ 3
Spring Lamb....	5 @ 5½
Mutton...... ..	3 @ —
Pork, undressed	7½@ 8
do, dressed....	11 @ 11½
Veal.	5 @ 6
Milk Calves.....	6½@ 7½
GRAIN, ETC.	
Barley, feed ctl	1 10 @ 1 15
do brewing.	1 22½@ 1 27½
Chevalier......	1 25 @ 1 35
Corn, White...	1 15 @ 1 20
do Yellow....	1 15 @ 1 20
Oats, ...	2 00 @ 2 62½
Milling.........	— — @ 2 75
Rye	— — @ 2 00
Wheat shipping	1 60 @1 67½
do milling .	1 70 @1 75
HIDES.	
Hides, dry......	10 @ 12½
do wet salted	6 @ —
HONEY, ETC.	
Beeswax, per lb..	25 @ 27½
Honey in comb..	12½@ 15
do Strained ..	8 @ 13
HOPS.	
New crop......	10 @ 13
NUTS—Jobbing.	
Alm'ds h'rd sh'l lb	8 @ 10
do, soft sh'l...	16 @ 18
Brazil do......	14 @ 16
Cal. Walnuts....	7 @ 11
Chile Walnuts..	11 @ 12½

Peanuts per lb..	9 @ 10
Filberts..........	15 @ 16
Pecanuts......	17 @ 18
ONIONS.	
Union City ctl.	2 50 @ —
Stockton	2 50 @ —
New.........	1 25 @ 1 50
POTATOES.	
Petaluma, ⅌ ctl.	75 @ 1 12½
Salt Lake.......	1 25 @ 1 37½
Humboldt.......	1 00 @ 1 12½
Early Rose.....	2 00 @— —
Sweet...........	— @— —
New, lb...........	1 @ 2
POULTRY & GAME.	
Hens, per dz....	8 00 @9 00
Roosters.........	9 00 @10 00
Broilers.........	4 00 @ 7 00
Ducks, tame dz	8 00 @9 00
do Mallard....	— @5 00
do Canvass....	— @5 00
Geese, per pair	2 00 @ —
Wild Gray dz	3 00 @4 00
White........	1 50 @2 00
Turkeys, Live, lb	23 @ 24
do Dressed	24 @ 27
Quail, per doz ...	— @ —
Snipe, Eng., doz.	2 00 @2 50
Doves, per dozen	50 @ 57
Rabbits...... ...	1 00 @1 00
Hare, per doz	1 50 @2 10
PROVISIONS.	
Cal. Bacon, L't, lb	16½@ 17
do Medium ...	15½@ 16
do Heavy......	— @ 15½
Lard..............	15 @ 17
Cal. Smoked Beef	9 @ 10
Eastern do....	— @ 10
East'rn Should's	— @ 10
Hams, Cal.......	14 @ 14½
do Armour	14½@ 15
do Worster's.	16½@ 17
do Dupee's..	18 @ 18½
do Davis Bros'	16½@ 17
SEEDS.	
Alfalfa, Chile lb.	8 @ 10
do California.	11 @ 12
Canary.......	18 @ 20
Clover Red.......	— @ 25
do White	50 @ 55
Cotton...........	6 @ 10
Flaxseed........	— @ 3¼
Hemp............	12½@ —
Italian Rye Grass	25 @ 30
Perennial do....	20 @ 30
Millet...........	10 @ 12
Mustard, white.	3 @ 3½
do, Brown. ...	3 @ 3½
Rape.............	7 @ 9
Ky. Blue Grass..	33 @ —
do 2d quality..	29 @ —
Sweet V Grass..	— @ 75
Orchard do....	30 @ 35
Red Top do...	— @ 25
Hungarian do	8 @ 12
Lawn do......	50 @ —
Mesquit do...	20 @ 25
Timothy........	11 @ 13
TALLOW.	
Crude, ⅌ lb......	7 @ 7¼
Refined	9 @ 9½
WOOL, ETC.	
SPRING—	
Seedy, ⅌ lb......	11 @ 12½
Choice long free	17 @ 18
do short........	13 @ 16½
Burry.............	10 @ 14
Oregon	— @ —

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday m., May 24, 1876.

FRUIT MARKET.	
Oranges Mex. ⅌ M.............	— —@— —
Tahiti do	25 00@— —
Cal. do..........	30 00@80 00
Limes, Mexican, ⅌ M.............	10 00@— —
Malaga Lemons, ⅌ bx...........	— —@— —
Cal. ⅌ 100.......	1 50@ 2 00
do Sicily ⅌ b'x.	6 00@ 8 00
Bananas, ⅌ bnch	2 50@ 5 00
Cocoanuts, ⅌ 100.	6 00 @ 7 00
Pineapples, ⅌ dz.	6 00 @ —
Apples, ⅌ box...	1 87½@ —
do Choice... ..	2 00 @4 00
Blackberries	— @ —
Cherries, ⅌ lb...	6 @ 20
Figs	— @ —
Huckleberries...	- @ —
Strawber's ⅌ cse	5 50 @8 00
Pomegranates....	— @ —
Raspberries. ...	— @ —
Currants, ⅌ lb	19 @ —
Cranberries ⅌ bbl.	13 00 @14 00
Peaches, ⅌ bx..	— @ —
Pears, ⅌ bx......	1 75 @3 00
do Choice....	— @ —
Crab apples, ⅌ bx	— @ —
DRIED FRUIT.	
Apples, ⅌ lb.	9 @12½
Pears, ⅌ lb	8 @13
Peaches, ⅌ lb......	12 @12½
Apricots, ⅌ lb......	14 @15
Plums, ⅌ lb......	5 @ 6
Pitted, do ⅌ lb	17 @22
Raisins, imported.	3 25 @3 75
Cal. Raisins....	5 @ 10
Black Figs, ⅌ lb....	5 @10
White, do	12½@15
Prunes...........	12½ @17
Citron..........	28 @ 30
Zante Currants	9 @ 10
VEGETABLES.	
Asparagus ⅌ box..	1 50@2 75
Beets ⅌ ctl.... ..	—@ 75
Cabbage, ⅌ 100 lbs	1 00 @—
Carrots, per ton.	12 50@15 00
Cauliflower, doz..	1 00@—
Celery, doz.........	50@ 1 50
Garlic, ⅌ lb. ..	8 @12½
Green Peas ⅌ lb	2½@ 3
Green Corn ⅌ doz..	— @—
Sum'r Squash ⅌ lb...	5@ 6
Marro'fat Sqsh, tn	20 00@25 00
Artichokes, ⅌ doz..	— @—
String Beans, ⅌ lb	7 @ 8
Lima Beans	— @—
Parsnips	— @—
Shell Beans........	— @—
Peppers, green, bx.	— @—
Okra............	— @—
Cucumbers, ⅌ doz	50@1 00
Tomatoes, box....	—@ —
Egg Plant, bx.......	—@ —
Rhubarb..............	1@ 2½
Lettuce	—@ —
Turnips, pr ctl......	75@1 00

LUMBER.

CARGO PRICES OF REDWOOD.	
Rough, ⅌ M...........	$18 00
Rough refuse, ⅌ M.....	14 00
Rough clear, ⅌ M......	30 00
Rough clear refuse, M..	20 00
Rustic, ⅌ M........ ...	32 50
Rustic, refuse, ⅌ M.....	24 00
Surfaced, ⅌ M..........	30 00
Surfaced refuse, ⅌ M...	20 00
Flooring, ⅌ M..........	28 00
Flooring, refuse, ⅌ M..	20 00
Beaded flooring, ⅌ M...	30 00
Beaded floor, refuse, M.	25 00
Half-inch Siding, M....	22 50
Half-inch siding, ref. M.	16 00
Half-inch, Surfaced, M.	25 00
Half-inch Surf. ref., M.	18 00
Half inch Battens, M...	22 50
Pickets, rough, ⅌ M....	13 00
Pickets, rough, p'ntd...	16 00
Pickets, fancy, p'ntd....	25 00
Shingles, ⅌ M	3 00

PUGET SOUND PINE—Retail Price.	
Rough, ⅌ M.	22 50
Fencing, ⅌ M..........	22 50
Flooring and Step, ⅌ M	32 50
Flooring, narrow, ⅌ M..	35 00
Flooring, 2d quality, M..	25 00
Laths, ⅌ M......	3 50
Furring, ⅌ lineal ft....	— —
REDWOOD—Retail.	
Rough, ⅌ M..............	22 50
Rough refuse, ⅌ M......	18 00
Rough Pickets, ⅌ M ...	18 00
Rough Pickets, p'd, M..	20 00
Fancy Pickets, ⅌ M.....	30 00
Siding, ⅌ M.............	25 00
Surfaced and Long Beaded................	37 50
Flooring	35 00
Do do refuse, ⅌ M ...	25 00
Half-inch surfaced, M..	32 50
Rustic, No. 1, ⅌ M	40 00
Battens, ⅌ lineal foot...	½
Shingles ⅌ M	3

RETAIL GROCERIES, ETC.

Wednesday, m., May 24, 1876.

Butter, Cal. ch'ce	30 @ 37
Cheese, lb........	18 @ 20
Eastern.......	25 @ 30
Lard, Cal., lb....	— @ 18
Eastern........	20 @ 25
Flour, ex. fam, bl	6 25 @8 50
Corn Meal, lb......	2½ @ 3
Sugar, wh. crsh'd	12½@ 13½
do lt. brown. lb	9 @ 9½
Coffee, green, lb..	23 @ 35
Tea, fine blk, 50, 65, 75	@1 00
Tea, finest Jap, 55, 75, 90	@1 00
Candles, Admant'e	15 @ 25
Soap, Cal., lb....	7 @ 10
Rice, lb	8 @ 12½
Yeast Powders dz.	1 50 @2 00
Bowen Bro. large can per doz ...	5 00 @— —
Small, do	2 50 @ —
Bowen's Cream Tartar lb... ...	— @ 75
Can'd Oysters, dz.	2 00 @3 50
Syrup, S F Gol'n.	75 @1 00
Dried Apples....	10 @ 12½
Dr'd Ger. Prunes	12½@ 14
Dr'd Figs, Cal...	9 @ 10
Dr'd Peaches....	11 @ 15
Oils, Kerosene ..	30 @ 40
Wines, Old Port	3 50 @5 00
do Fr. Claret..	1 00 @2 50
do Cal. dz. bot	3 00 @4 50
Whisky, O K, gal.	3 50 @5 00
Fr. Brandy ..	4 00 @8 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Sutro & Co.]

San Francisco, May 24, p. m.

Legal Tenders in S. F., 11 a. m., 89½ to 90. Silver, 4 to 5 per cent. discount.

Gold in N. Y. 112½.

Gold Bars, 900 to 910. Silver Bars, 12 and 20 per cent. discount.

Exchange on N.Y., 50-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 9 per cent. discount.

London — Consols, 93 to 93½; Bonds, 102½.

Quicksilver in S. F., by the flask, per lb, 54@55c.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS, Santa Barbara, Cal.

200,000 Forest Trees

For Sale. Consisting of MONTEREY CYPRESS, PINES and BLUE GUMS; all sizes at low rates. Also, large AURICURIES EXCELSA and a GENERAL NURSERY STOCK of FRUIT TREES, Fruit Bushes, Vines, Street and Ornamental Evergreen Trees, Shrubbery and Green House Plants. Send for prices. Address

WM. SEXTON, Nurseryman, Petaluma, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 47 Cal. Market S F

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 73 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Agricultural Articles.

THE

Improved Eagle Hay Press

CHEAP, STRONG, ECONOMICAL, POWERFUL AND RAPID.

THE KIMBALL MANUFACTURING CO.,

Owners of the Patent, and Sole Manufacturers on the Pacific Coast, make

Cars, Carriages and Agricultural Implements,

Cor. Fourth and Bryant streets, S. F.

Pressing hay in bales in a compact and easily managed shape has become one of the features in the industry of California farming.

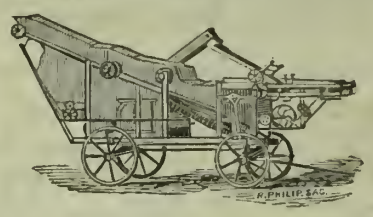
The large sales the past season, and the increasing demand of the present, gives proof of the advancement of the Improved Eagle Hay Press over all competitors on this Coast.

Three men, with a team, can bale from ten to fifteen tons per day, each bale weighing from 250 to 350 lbs., according to the quality of the hay. It uses less rope than any other press of its size. Size of bale box, 49 inches long, 26 inches wide and 27 inches high.

These presses are made in San Francisco, by the KIMBALL CAR AND CARRIAGE MANUFACTURING CO. Also manufacturers of agricultural implements, California grading scraper, farming tools, carts, plows, wheelbarrows, portable railway track and cars, railway and street cars, omnibusses, Taylor's patent tubular iron and wood harrows, with driver's seat attached, Harris' patent tubular iron square or Scotch harrow, steam fire engines, Hayes' patent fire escape, Southwick's patent turbine windmill, quartz and farm wagons, trucks, road scrapers, all styles and grades of harness; carriages trimmed to order; manufacturers and agents of Tulloch's automatic ore feeder; machinery made and repaired; fine carriages and all styles of buggies.

JACKSON'S

PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six months. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL.,

Will receive Prompt Attention.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power

[PATENTED FEBRUARY 13th, 1872.]

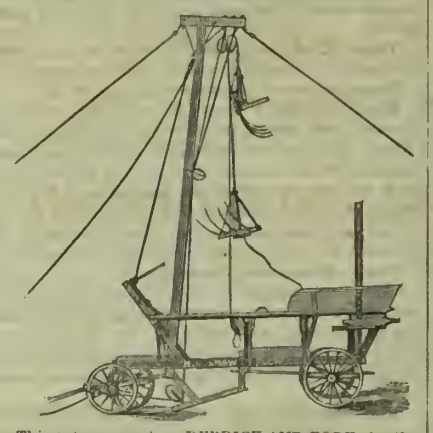
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON,

Stockton, Cal.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

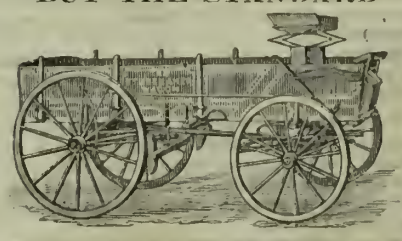
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,

Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

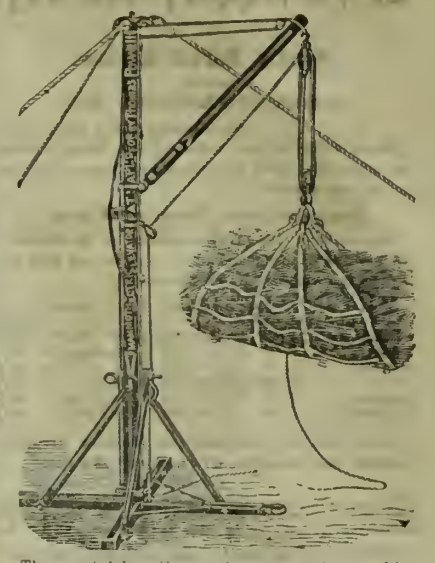
OAKLAND

Spring Balance

Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack, only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. C. SHAW PLOW CO., Stockton, Cal.

Marster's Self Regulating FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

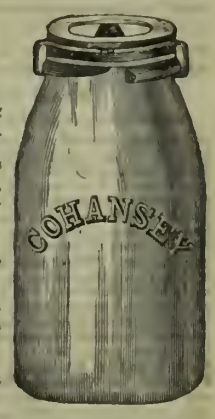
E. J. MARSTERS,

Stockton, Cal.

Works, Corner California and Sonora Streets.

COHANSEY GLASS TOP FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being Inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Ca

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

CENTENNIAL.

5 Beautiful Views, size 3x4 inches each, of THE CENTENNIAL BUILDINGS at Philadelphia, postpaid for 25 cts; 5 sets for $1. Agents Wanted.

PHELPS BROS. & CO.,

125 Dearborn st., - - - CHICAGO

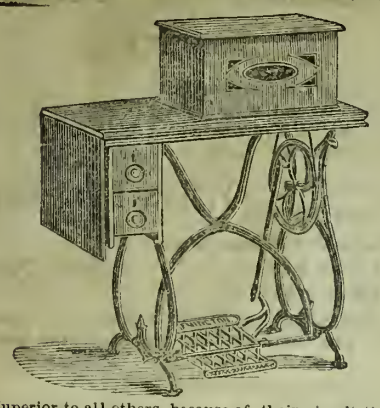
MERCHANT MILL FOR SALE,

And 160 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,

San Luis Obispo.

REMINGTON SEWING MACHINES.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

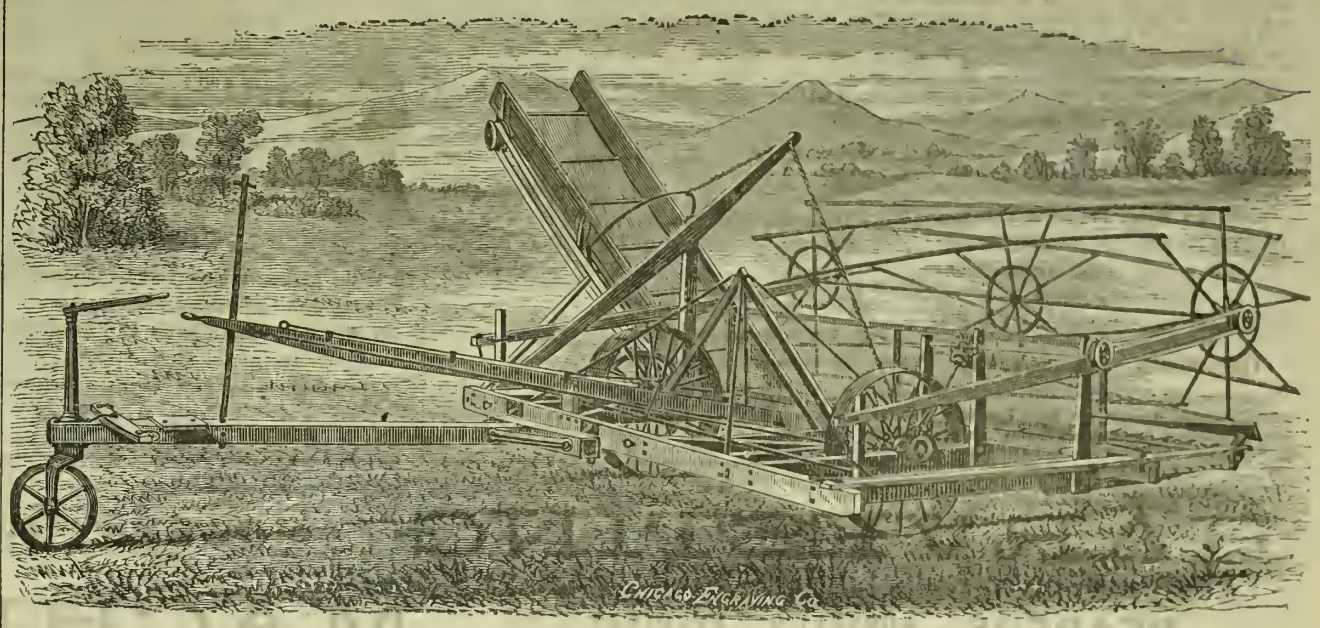
*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco

KELLER & CO.,



IMPORTERS AND DEALERS IN

AGRICULTURAL IMPLEMENTS, MACHINES AND FARMERS' TOOLS.

We are Sole Agents for the following Celebrated Machines:

J. I. Case & Co.'s 18-horse Engines.

We guarantee these Engines to furnish more power, with less fuel, than any other make in the market. They are handsome in appearance, mounted on substantial trucks, and furnished with driver's seat, roller break and hand pump.

J. I. Case & Co.'s 40-inch Separators,

With large cleaning capacity, made expressly and just imported for this trade.

Pitts' Down and Mounted Powers,

HEAVIER HAINES' IMPROVED SINGLE-GEAR HEADERS.

These Headers are manufactured by the same party who has superintended the building of all Headers ever made for this trade. Knowing the wants of this market, he has added many improvements for 1876, which will be found on no other Header.

J. I. Case & Co.'s Improved Single Gear,

WITH ADJUSTABLE SPOKES AND REEL.

These Headers are so well and favorably known that we only add for the year 1876 they are better made than ever before. We have these headers in sizes of 10, 12, 14 and 16 feet.

Mowers.

EXCELSIOR MEDIUM MOWER, EXCELSIOR JUNIOR MOWER, ÆTNA MOWER, WOOD'S MOWER, PEERLESS MOWER, MEADOW LARK MOWER. The finest assortment of noted Machines ever kept by one house.

Header Wagons.

The reputation of Fish Bros.' Pacific Wagons is so well established that parties buying these Wagons know without doubt they have the very best in the market. We have a large stock of IRON AXLE HEADER WAGONS. We guarantee them to run two years without the resetting of the Tires.

Lock-Lever Steel Tooth Hay Rake,

Awarded the FIRST PREMIUM at State Fair last fall as the best Steel Tooth Rake. This is a self-dumping Rake, and stands without a rival.

Sulky Revolving Rake

Has become very popular as the best Winrowing and Bunching Rake. Also, a full stock of Revolving Rakes.

Harpoon Hay Forks.

The double harpoon is the only reliable Horse Fork for all kinds of hay.

Faust's Hay Loader,

The only successful Hay Loader in the world.

Buckeye Corn Cultivator.

This is either a Riding or Walking Cultivator. More of them in use than all other makes combined.

The Gorham Seeder and Cultivator,

The Only Reliable Seeder now in Use.

Barbed Wire for Fence,

Also, Single Barbs, separate from the Wire. They can be attached to any Wire Fence anywhere. They are immovably clasped around the Wire, after the Fence is built, with pincers furnished for the purpose.

Halladay's Windmills.

They are the Standard Mill the world over. Have gained a reputation as broad as its use is extensive.

Wagons, Plows, Cultivators, Harrows, Seed Sowers, Etc., Header Knives, Mower Knives, Sections,

AT HALF THE USUAL PRICE PAID OTHER DEALERS.

Our Goods are the best in the market. Our prices are the lowest. Our manner of trading is well known all over the Coast. Our Machines are so well and favorably known that farmers make no experiment when trading with us. Send for Circular and Price List.

Address, KELLER & CO.,

43, 45, 47 J Street, Sacramento, Cal.

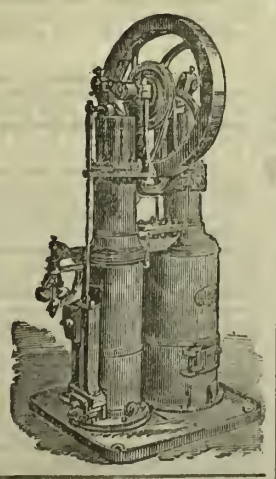
RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

Not a Valve, Spring, Cam, Lever or Eccentric about them.

ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.



Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

Send for Circular and Price List, or call and see one in operation.

HUNTINGTON, HOPKINS & CO.,

Sole Agents for the Pacific Coast,

Junction of Bush & Market Sts., S. F.

EXTRAS! | EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

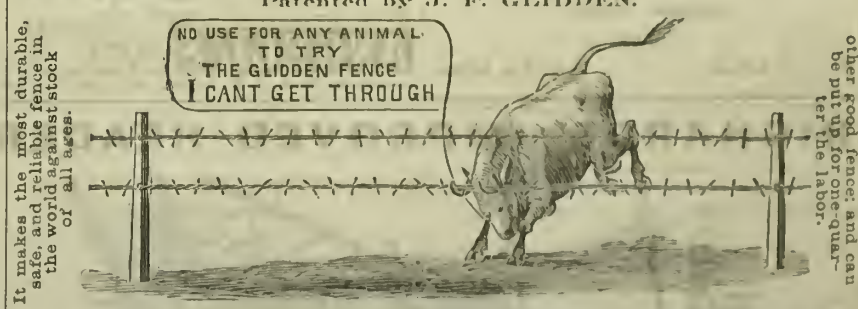
Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.



The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8. Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough for a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

CENTENNIAL EXPOSITION.

Visitors to the East can obtain advance accommodations (good until Nov. 10th), at all first-class hotels and boarding houses in Philadelphia. Full Board per week as low as $6 00, or $1 00 per day. Grangers, Freemasons, Temperance Societies and large bodies will be dealt with liberally. Parties taking our ticket can secure Hotel accommodations at New York, Saratoga and Long Branch without extra charge, by applying to

Centennial Boarding Agency Bureau,
of Philadelphia,
121 MONTGOMERY ST., - - SAN FRANCISCO.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER,
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

The Mining and Scientific Press,
Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & Co., San Francisco.

Grangers' Bank of California,
42 California Street,
SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:
PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

D. H. WHITTEMORE, Worcester, Mass., makes a machine that at once pares an apple, slices off and separates. Warranted satisfactory. Price, $1 and $1.50 each. Sold by Dealers.

OAKLAND POULTRY YARDS,
Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,
20 of the Largest Bronze Turkeys in America.
Eggs for sale after January 1st.
NO INFERIOR FOWLS SOLD AT ANY PRICE.
SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to
GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

Seeds. Seeds.
IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.
Early Canada, Early Dutton — Yellow Flint Corn.
Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,
No. 317 Washington Street,
v8-tf SAN FRANCISCO

HARVESTING MACHINERY,

MOWERS—Wood's Eagle, Peerless & Clipper.

REAPERS—RUSSELL'S PEERLESS.

HEADERS—Haines' Genuine Single Gear.

SEPARATORS AND POWERS.
Chicago Pitts, with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

Steam Engines.
ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

LYMAN'S SELF-FEEDER.
Invented by a practical thresher. Best in the market. Price only $150. It surpasses all others in durability and simplicity of construction. Can be applied to any Separator in a few hours, and taken off in 15 minutes. It is guaranteed to give satisfaction or no pay.

FULL SUPPLY OF "EXTRAS" FOR ALL OUR MACHINES.

Linforth, Kellogg & Co.,
Nos. 3 and 5 Front St., San Francisco, Cal.

M. Eyre, Napa, Cal.
High Class, THOROUGHBRED POULTRY, EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS.
PRICE-LIST For 1876 Now Ready.
PIGEONS. RABBITS. FERRETS.
—ALSO—
THOROUGHBRED SOUTHDOWN SHEEP.
Address M. EYRE, Napa, Cal.
Please enclose stamp.

POND LILIES,
WHITE FLOWERING.
ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.
W. A. T. STRATTON,
Pacific Forest Tree Nursery, Petaluma, Cal.

SEARCHER OF RECORDS
—FOR—
SONOMA COUNTY,
CALIFORNIA,
F. G. NAGLE, - - - SANTA ROSA.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock
EVER OFFERED ON THE PACIFIC COAST.
Prices Unusually Low.

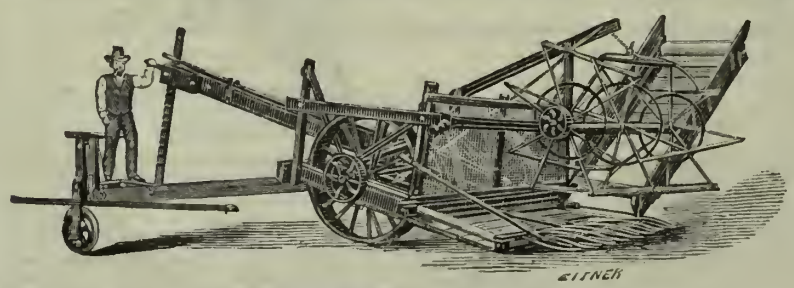
Trade Price List on application.

*** My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

RICHARDS' IMPROVED HEADER



STOCKTON CHIEF.

This Header for stanchness of build, lightness of draft and capacity for securing fallen grain, has no equal on the Pacific Coast. The manufacturers offer it with full confidence that it will give perfect satisfaction to all who purchase and use it. Manufactured by

MATTESON & WILLIAMSON,
Corner of Main and California streets, Stockton, Cal.

STRAW BURNING ATTACHMENT.

KING'S PATENT.

The Only Successful Burner Yet Introduced.

Having secured the exclusive right to manufacture and attach to engines J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of the threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

MODESTO, October 9th, 1875.

MR. J. R. KING—*Dear Sir:*—We have used your Attachment on our Automatic Headley Engine the past two seasons; it furnishes all the power necessary to run our large Pitts Separator with a Jackson Feeder attached; it more than gave satisfaction to all the farmers for whom we threshed; it required but little straw to furnish the necessary amount of steam; our engineer had a boy to fire it, and he attended to the Separator and Engine; it was much safer than a wood burner, for when we wished to stop or move, all that was necessary was to close the door and everything was perfectly safe. We used no spark arrest, as there were no sparks to arrest. It was a perfect success in every particular. Yours, etc.,
BENTLY & YOUNG.

LINDEN, October 16th, 1875.

MR. J. R. KING—*Dear Sir:*—Having used one of your Straw Burner Attachments on my Ames Engine (wood burner) No. 8, I feel it my duty to state that it proved to be far more than I expected. It furnishes sufficient power to operate my large Pitts Separator. I have seen several regular Straw Burning Engines in operation, and would not exchange for any small consideration. I used it all the season without the least difficulty and know it is a success. Yours, etc.,
J. H. DUNCAN.

The following parties used my Attachment on their Wood Burning Engines last season: Covert & May, Grayson, Stanislaus county; W. H. Gilmore, Stockton, on an old style Headley Engine, 8x12 cylinder; Morse Bros., Modesto, Stanislaus county; C. F. Leavensworth, Modesto, Stanislaus county, old style Headley, 8x12 cylinder. On the 13th of May, at Stockton, in a test of Straw Burning Engines, a very lively competition ensued between the different styles and patterns of machinery, particularly between the two Straw Burning Engines. My Attachment claims superiority and preference over all others on account of its adaptability to all styles and patterns of wood or coal burning engines, to which it can be fitted. It has a conical feed tube or funnel, through which the straw is fed to the fire box, the interior arrangement of which is also peculiar, containing a half set of coarse grate bars standing six to ten inches high, and adjustable to any hight desired and sloping toward the front. In front of the tubes a circular concave plate is so arranged as to cause the draft to first strike the top of the boiler and then draw down behind the plate through the small flues. Engines rigged with this burner are absolutely safe from sparks, there being no necessity even for a spark arrester on the smoke stack. To show how rapidly it makes steam we add the following record of its performance on Saturday, attached to a Gaar, Scott & Co.'s portable engine: The fire was lighted with the boiler partially full of cold water, (two gauges cold,) and in 25 minutes the whistle was blown, the gauge showing a pressure of 10 pounds of steam; in 30 minutes, 20 pounds; in 32 minutes, 30 pounds; in 34 minutes, 40 pounds; in 35 minutes, 45 pounds; in 37 minutes, 50 pounds; in 38 minutes, 55 pounds; in 40 minutes, 60 pounds; in 42 minutes, 65 pounds; in 45 minutes, 70 pounds; in 47 minutes, 80 pounds; in 49 minutes, 90 pounds; in 50 minutes, 100 pounds. On reaching a pressure of 100 pounds the barley mill, to which it was attached by a belt, was started and run to its full capacity, grinding at the rate of two tons per hour; during this time steam raised to 130 pounds, pumping more than a full supply and frequently blowing water out of the boiler; then stopped firing until the steam gauge indicated 80 pounds; commenced firing again and got 140 pounds in 25 minutes; water raised in boiler to three gauges; mill run to full capacity all the time; this was a Gaar, Scott Engine, cylinder 7x13 inches; boiler, diameter, 29 inches; 27 flues, 2½ inches diameter, and 54 inches long; fire box, length, two feet eight inches.

The Attachment can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced county. Byron Jackson, Woodland, Patentee of Self Feeder, agent for Solano, Yolo and Colusa counties.

All orders addressed to J. R. King, Patentee, in care of the Globe Iron Works, or H. C. Shaw Plow Company, Stockton, will receive prompt attention. Send for Circulars.

JOHN CAINE, Proprietor Globe Iron Works,
STOCKTON, CAL.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, JUNE 3, 1876. [Number 23.

Melon Sugar.

We recently announced the inception of an enterprise in Sacramento county for the manufacture of sugar from melons. This is a promising industry and we are glad that another attempt will be mede to develop our sugar resources. As the subject is timely we print some extrects from a pamphlet by W. Wedsworth, entitled "Indigenous Sugars and Directions for Making Snger from Melons," published oy Dewey & Co. Our space will enable us only to note for general information a few of the leading poiuts iu melou sugar makiug. Fuller details may be had iu the pemphlet by all who are interested.

The Best Melons for Sugar.

Not only the watermelon, but several varieties of cantaloupes, squashes end pumpkins are grown in southern Hungary, uorthern Italy, Egypt, aud along the southern shores of the Mediterranean, for sugar making.

Several varieties of cantaloupes and Persian melous will yield more sugar to the acre of land than watermelons; but their jnices requre a little more care aud cost in manipulating to obtain pure sugar, than does the juice of the watermelou. They have more of a frnity taste than watermelons, and this taste is augmented by the concentration or boiling dowu of the juices, sometimes to a degree approaching to slight bitterness or acridity; and yet with proper management will yield more sugar ot equally good quality.

Gathering the Melons.

Watermelons should be fully ripe before being gathered. There is not that immediate haste iu the working of watermelons as with cantaloupes; the latter requiring to be worked on the day of, or day following the gathering, in most oases, because there is just a particular time when they contain the most sugar.

As near as we can give the exact time it is this: You must judge entirely by the appeerance or color, depending upon the variety, end after having made repeated trials bytesting, pull them when they are in precisely the right condition for eating at once. Juet one day sooner or later will make no very material difference, bnt more than this will. If three or four days too early, they have not fully developed their saccharine qnalities, and if as many days too late, they lose in sugar aud become too soft to handle.

How to Oblain the Juice.

We speak now of watermelons. An arrangement of tables is needed by which men, women, or boys can staud aronud or alongside of, with room for each to use a large, cleaver-like knife, with which, by a single blow, the melou is divided in halves; then with an irou or wooden hand scoop or spoon about four inches broad, aud a sixteenth of an inch thick on the edge, and a handle four or five inches long, and large enough to grasp aud hold firmly in the hand, with two or three movements scrape out the core and all the sweet part of the melon as close to the rind as it appears to be at all sweet —perhaps a little oloser than you would eat it as a melou—and allow the pulp and juice from all to pass to one side, or through a hole in the table into a trough, by which it is conveyed on an incline to a large tub, covered with wire gauze, three or four inches below the rim or top.

The pulp and seeds falling upon the gauze are rubbed with a heavy, coarse hand brush—like a common horse brush—through the gauze, which breaks all the juice cells. The seeds as they acoumulate are occasionally oleaned up and thrown off the sieve, but are all saved. The pulp and juice having passed through the sieve are now run off into strong canvas, or woolen sacke, loosely woven, and being tied, or the mouth of each donbled over upon itself, is now placed in a common wine or cider press, and the juice pressed out. It is usnal to have the sack standieg or held in place on the press, and the juice from the tub drawn into it as wanted.

Defecation of the Juice.

This is the most important process in the manufacture of sugar from melons, as on it depends very much the quality of sugar produced. From the press, the juice passes to any sized kettle or boiler, as beet suits the convenience of the operator; but it should not be more than three feet in depth, and it ehould be so conetrnoted that the heat—whether from a steam coil on the inside, or fire direct to its outer surface—can be instantly cut off, either by shutting off the steam from the coil, or by swinging or sliding the kettle from the fire, or removing the fire from the kettle.

Fill the kettle with the juice from the press to within six or eight inches of the top. Apply the heet, which, if from fire direct, should only touch the bottom of the kettle. As the juice warms, take off all the scum that rises with a skimmer.

Now test for acid with a half-inch wide strip of litmus paper, by dipping it into the juice. If the preesnce of an acid is indicated on the application of the foregoing test, add one large tableepoonful of milk of lime, to every six or eight gallons of juice, thoronghly stirring it in; if now another teet still indicates the presence of acid, add another spoonful and stir again, and continue the application of lime in small quentities, till the litmus peper comes forth nearly unchanged, or assumes a color approaching a purple, when enough lime has probably been used, as a complete neutralization of the acid is hardly expected, or deemed expedient, at the risk of addiug too much lime, which is always hurtful.

Continue the heat and the skimming till the thermometer, Fah., indicates 150 degrees, or in the absence of a thermometer, as long as the finger can be well held in it; then cease skimming entirely, continue the heat till the juice indicetes 196 or 200 degrees Fah., or if no thermometer is at haud, to a point juet short of boiling; but ou no eccount let it quite boil, as that wonld dissolve much of the scum, causing it to reunite with the jnice, greatly to its injury and difficult again to separate from it.

Now ehut off the heat at once, and let it staud perfectly quiet for 15 or 20 minutes. A thick scum will now be fonud npon the surface, and considerable sediment will have fallen to the bottom; but the intermediate juice will be beautifully clear aud transparent.

Evaporation and Concentration.

Now convey the clarified or defecated juice to a clean boiler or to one of the best approved "evaporators," now so oommon over a great part of the north and west of the Atlantic Stetes, for concentrating maple and sorghum juices, and boil or concentrate to the consistency of syrup as with those juices, by allowing a stream of jnice to flow in at one end or part, and the syrup out at another, and as quickly as possible, using the greatest care not to burn the syrup in the process.

If any scum should rise during the boiling it mnst be skimmed off. To know when the syrup is boiled enough, dip the skimmer in the boiling syrup, lift it out, letting the syrup run from one edge; if, when the last few drops are falling off, they draw out into a string a considerable distance without breaking, and on taking a little between the thumb and finger it feels tough and sticky like molasses, it is pretty good evidence that the syrup is sufficiently concentrated for keeping in any climate.

Making Sugar.

The syrup as it comes from the eveporator should be filtered through close woven flannel bags; the size is not material, but if two feet long and four or five inches in dlameter will answer, well, and enough should be nsed to filter as fast as the syrup is furnished or wanted for futher concentration.

From the filters the syrup is taken to another boiler and concentrated without burning till the steam escapes from it in short, sharp puffs, from small cone like craters; and when dropped from the skimmer, falls like lumps of hot mush, with a thup-thnp-like sonud.

Crystallization.

When the syrup is in the oondition last indicated, run it off into large wooden tubs or boxes, to a depth of not more then two inches, that it may cool as quickly as possible, down to 150 degrees or lower, and until it is as cool as this, it should not be allowed to rest qniet. Keep it in a warm room the temperature of which shonld be as near as possible at 90 or 100 degrees, and if you are boiling continuously, add another two inches or less, if you have not another vacant tub for it, and so continne till you have a depth of five or six inches; stir altogether and let it stand till cryetellization ensuee, which is usually in 24 hours; and yet it may stand for four or five days ae syrup and then snddenly change to sugar.

If, as is sometimes the case, it has stood 24 or 48 hours without showing signs of crystallization, it can be hastened by stirring in a handful or two of coarse sugar.

Separating the Sugar.

If the crystallization has been well conducted, the mass will eppear to be, when lifted up and allowed to run from a ladle, half or two-thirds crystals, and the rest molasses or syrup. The sugar is separated from the syrup by suspending the contents of the tubs in flannel filters, hung up in the warm crystallization room, and allowing the syrup to draw off till the sugar is sufficiently dry for ordinary purposes, or it can be run into molds and cleaned of its syrup, as in making loaf sugar.

The syrup that drains from the sugar can be further concentrated by boiling, and a fair second-grede sugar obteined by another crystallization, or it can be used in the form of syrup.

The pamphlet treating of these matters in greater detail, and also of the beet and grape sugars, may be had of Dewey & Co.; price 25 cents.

Losses by Fire.

As we expected when we wrote a recent warning to the owners of harvest fields, the demon of fire is robbing the farmer of his reward. We print the following from the Antioch *Ledger* as additional warning to take care and precaution:

Reports from Bantas station state that on the line of the Central Pacific railroad beyond Altamont a large amount of grain was destroyed by fire. The conflagration was caused by sparks from a passing locomotive. H. H. Needham lost 70 acres of barley, Mr. Anderson 80 acres and Mr. P. H Lewis 30 acres of wheat. There are two railroads running through the New York ranch to the coal mines and too much care cannot be exercised at this season of the year. Persons driving or traveling through the country should be cautious in throwing away lighted cigars. Nearly every season great loss of property is reported throughout the State, the result of carelessenees.

Address not individual members in writing on the business of a newspaper or firm. The person addressed may be absent and your letter remain unopened.

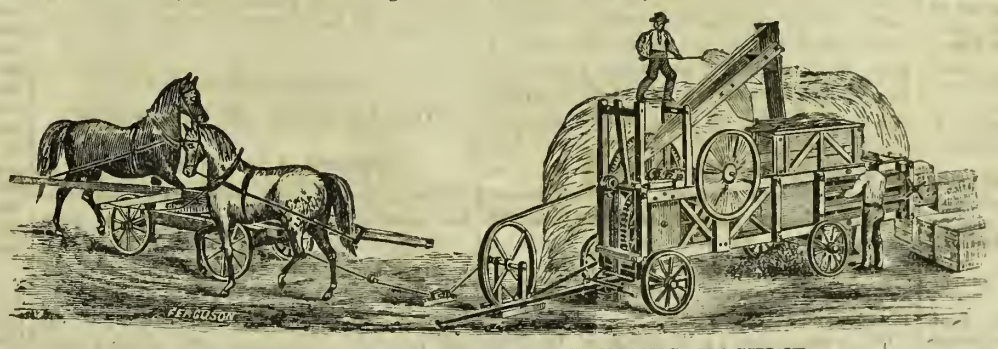
The Perpetual Hay Press.

We have another pressing subject for illustration on this page this week. It is the season for implements of this kind and readere will look for full information. We give an engraving of the P. K. Dederick patent Perpetual baling press, or trussing machine.

It is either a one or two-horse press, or, if driven by steam or other power, is equally adapted to baling any loose materiel. The menufacturers furnish the following description of its mechanism: It is built upon an entire new plan, and forms as well as discharges the bale without any assistance except pitching the looso material into the hopper, and, the operation being continuous, a whole stack or mow of hay can be baled without stopping, either to tie or remove the bales or for any purpose whatever. The power, and in fact every part of the machine is so entirely different from ordinary presses, that it will be difficult to explain its construction and operation so as to be understood and appreciated.

It is really a trussing machine, or, as is clearly shown in the illustration, the bales are pressed in sections, the finished bale forming the head to press the succeeding one against, and is ejected by the operation of the machine as fast as the forming bale is constructed. Light followers with tying slots in them are slipped in without stopping when the proper length of bale is formed, and through them the bale is tied while passing through the mechine. The discharge end of the mechine is constructed adjustable, so that by turning a nut the bale is impinged or released, thus forming heavy or light bales as desired, and requires no change after being adjusted to form the weight of bale required.

The pressing is accomplished by a reciprocating traverser, moving out and back underneath the hopper to each revolution, thus pressing against the compact hay, and forcing beyond its traverse, each revolution, all the hay pitched into the hopper. This traverser is so constructed as to prevent its clogging or binding, even if double the emount of hay is thrown in that can be received into the chamber at a single revolution, and the chamber is provided with a steel spring or shoulder, extending entirely around it at its jnuotion with the bale chamber, which retains all the hay forced beyond it and prevents its expanding back when the traverser is withdrawn. The power is acquired by a toggle, constructed and combined with gear wheels. Having neither roller, beater, chains, ropes nor doors, it is also durable, and cannot be easily got out of order by use.



PERPETUAL BALING PRESS OR TRUSSING MACHINE.

The Perpetual press is really a new implement to the agriculture of this coast. Messrs. M. C. Hawley & Co., who are the sole agents for the apparatus, imported a few last year and placed them in the hands of trustworthy men for trial. The result is very flattering testimonials of its excellent work. This year Messrs. Hawley & Co. imported three car loads of the presses, and they inform us that they are being widely introduced. Any one interested may pursue the subject further by applying to M. C. Hawley & Co., 108 and 110 Front street, San Francisco, and corner J and Second streets, Sacramento.

Cherries.—We have received some splendid samples of cherries from A. T. Hatch of Suisun valley, Solano county. We counted 160 fine cherries in 12 inches on the longest stems. The branches are wonders of heavy fruiting.

Personal.—Mrs. Mary J. Locke, our esteemed contributor, "Mary Mountain," is on her way to the Centennial, paying short visits en *route* at Virginia City and Salt Lake City. We wish her *bon voyage*.

Landscape Views.—We have received from Mr. S. P. Sanders, of San Jose, some fine stereoscopic views taken on the new road to Mt. Hamilton.

A London special to the New York *Herald* says the United States ship *Franklin* has arrived at Salonica.

CORRESPONDENCE.

Agricultural Education in Germany.

II.—College and Middle School Course of Studies.

To give an accurate idea of the full course of studies, and the division of labor among professors and teachers in the agricultursl colleges and schools of Prussis, allow me to select two examples of their best, which will serve as a correct type of all throughout the German Empire.

Having inquired of Dr. Fslk, Imperisl Minister of Education, with whose acqusintance I was favored by introduction from Mr. Davis, our American Minister, which of their universities he would especially recommend to inspect for this purpose, I was advised to examine the agricultural college of the Province of Saxony, connected with the University of Halle. Although much to my regret I was unable to visit the institution in person, the following fscts collected from authentio sources msy be relied upon.

Agricultural College Course.

Its course of studies extends through two years. Its direotor is Dr. Julius Kuehn. During the winter session he leotures on: 1, a general survey of the science of agriculture, its divisions, its significance, etc.; 2, methodology, or classificstion; 3, history of agriculture; 4, general principles of agriculture and of the resring of domestic snimsls.

In the summer session his lectures are on the following subjects: 1, special agricultnral themes; 2, sgriculture from a business point of view; 3, the pathology of plants, thst is, their diseases snd treatment. Dr. Knehn also conducts experiments in the "laborstory of sgricultural physiology" and in the "seminary for applied nstural sciences."

Dr. Freytsg (Friday in English,) lectures upon, 1, the rearing of specisl kinds of domestic snimals; 2, the different kinds of wool, their values, etc.; 3, book-keeping; 4, the art of correctly pricing sgricultursl prodncts.

Dr. Ruloff lectures on, 1, anatomy and physiology of msmmalis; 2, exterior of mammslia; 3, treatment of the diseases of domestic animsls; 4. prsctice in dissecting them.

Dr. Wuest's department includes, 1, sgricultural machinery; 2, draining and lsying out of mesdows or pastures; 3, construction of roads; 4, pecuniary gains of the agriculturist in different departments; 5, leveling and surveying.

Dr. Marker's department is sgricultural chemistry.

Prof. Fitsch snd Dr. Branns lecture upon, 1, mineralogy; 2, geognosy; 3, geology; 4, different kinds of soils.

The departments of Drs. Krsus and Schmitz include, 1, principles of botany; 2, physiology of plants; 3, special botany with particular respect to the most important agricultural plants.

Prof. Liepet teaches, 1, zoology; 2, comparative anatomy.

Other departments are as follows: Prcf. Tsschenberg, entomology, especially the insects hurtful to agriculture; Prots. Bernstein snd Nasse, physiology; Prof. Kusblauch, natural philosophy; Prof. Heintz, gensrsl and orgsnic chemistry; Prof. Engel, principles of chemistry and chemical technology.

Dr. Cornelius, 1, msthematics; 2, mechanics; 3, meteorology.

Prof. Conrad and Prof. Eisenhardt, national agrioultnre.

Dr. Dachow, lsw, in two divisions: 1, laws of commerce; 2, laws relating to agriculture.

All the above lectures are so arranged that the students in the last half year have time to attend to their general culture by hearing some lectures on philosophy, history, literature and ethics. All who have attended for two years must pass a general examination to entitle them to graduation.

There are now in connection with this college, or in procesa of erection: 1, a hospital for domestic animals; 2, a dissecting hall for the same; 3, an agricultural-zoological garden; 4, a machine hall; 5, experimental fields; 6, an agricultnral-physiological laboratory.

Such is the ample provision for a thorough course of agricultural training in one of the most celebrated colleges connected with one of the great German universities. How does the list of stndies completed in two years, and the number of professors required to conduct them, compare with those in our own agricultnral colleges, which have been so generously endowed by our congress and the legislatures of onr respective States? Can anybody suppose that one, or even a half dozen of our professors, able as they msy be, can properly perform the duties divided at Halle between nineteen of the ablest scholars and teachers of Germany, to say nothing of their assistant instructors? I leave it for your resders to draw their own conclusions.

Course in a Middle School of Agriculture.

Let us now examine the course of studies in what the Germans call a "middle school for agricultnral instruction." We select the one at Popelan in Silesia. Its course embraces two years, and is practical as well as theoretical. The number of pupils provided for is 40. This school is established by the central agricnltural society of the province of Silesia, and is controlled by the directors of that society. A Bosrd of Trustees selected from these directors has the special supervision of the school. This Board is composed at present of: 1, the Dnke of Ratisbon; 2, Baron Rergenstein; 3, Herr Muller, landed proprietor; 4, Herr Lemander, sgricultural councilor.

The school year begins October 1st, but pupils are also received the 1st of April. They mnst be between 15 and 20 years of age, and thorough in all elementary branches; that is, they sre required to have whst we term a good common school education. With the Prnssisns, the time required for a full course in their common or tower schools is from the age of 6 to 14 inclusive, or 9 years in all.

The theoretical instruction in thls school follows closely the plsn lsid out for schools of its class by the Minister of Agriculture, who is at present Dr. Friedenthsl, to whom I hsd the privilege of an introduction from Dr. Falk, already mentioned. The practical instruction is conducted on the land belonging to the school.

The duties of its faculty are divided as follows: 1, *Director* Strehl tesches, 1st, sgricultural and rural economy; 2d, msthematics. 2, *Teacher* Kirscht instructs in nstural sciences. 3, *Farm-Inspector* Beckor gives lessons in prsctical sgriculture. 4, *Teacher* Wolff, Germsn history and geography. 5, *Veterinary Surgeon* Kotelman, cure of diseases of domestic snimals. 6, *Forester* Krsfft, the cultivation of forests, and the pecuniary gain to be derived from it. 7, *Geometer* Wirskowski, surveying and leveling. 8, Herr Leyer, as *Art Gardener*, instructs in the cnltivation of frnits and vegetables. In this very complete and thorough school the expenses for board and tuition amount to about $140 gold per year.

J. W. A. WRIGHT.

London, Eng., April 15th.

Traveling Correspondence.

NUMBER TWO.

EDITORS PRESS:—After leaving Shingle Springs, from which I wrote you, I took the rosd west to the vicinity of Clarksville, crossing north to Coloma rosd and psssing essterly through Green valley, Gray's flat, Missouri flat, Diamond Springs, thence to Nashville, 10 miles south, and returned by way of Logtown and El Dorado to Placerville.

Land in this part of the country is vslued according to quality, situation and improvements, from $2.50 to $100 per acre. Good improved land can be had from $10 to $20 in many plsces, capable of producing, with irrigation, all the different varieties of fruits, grains snd vegetables to be found in the counties sround the Bsy. Little grain is now raised except for hay, which seems to be the principal crop in the sgricultural line. The farmers cut from 10 to 50 tons annually, and get from $20 to $30 per ton for it in the neighborhood. Redtop and alfalfa both do well. I saw some alfalfa of fine growth at Mr. Gslt's, near El Dorsdo, and at other points.

There was almost a totsl fsilure of the fruit crop here last year, and in consequence msny feel poor, bnt their condition is ten times better thsn thst of hundreds in San Francisco since the failure of the banks. The fruit crop this year is very promising. Grspes hsve been damaged by the late frosts, how much I am not sble to say at this writing—and spples have been blighted by the hot weather of s few weeks ago. With cheap water for mining and irrigation, and a little more Eastern blood brought into the country, many a "waste place would blossom as the rose."

In msny cases, mining and fsrming are carried on by the same individual. This may be a necessity, bnt one or the other must be neglected. When plowing onght to be done, it is often the best time to mine on account of the abundance of water. A great many have doubtless been demoralized by the big strikes made in former times and do not take as naturally to farming as dnoks to water. A little more summer fallowing, deep plowing, and a closer attention to methods pursued in other parts of the State, such as can be found in the PRESS, wonld make a material chsnge in some neighborhoods, where the PACIFIC RURAL and other good agricultural papers are a scarce article. There are, however, many wide-awake farmers here, and fully up to the times in all respects and yonr agent has met with a cordial reception generally and particularly among the Patrons of Husbandry, who have a Grange at Clarksville, El Dorado, Coloma, and Placerville, and I think at some other points not yet visited.

Horticnlture is quite a business at El Dorado, Diamond Springs and Placerville. Everywhere is seen the orchard and vineyard. Mnch good wine is made here. Among those engaged pretty extensively in this business, may be mentioned Mr. Weatherwax of El Dorado, and Messrs. Carpenter & Kramp of Diamond Springs. They make annually 5,000 gallons and upwards each. Mr. Kramp caused me to break the temperance pledge by setting before me some most delicious wine. If Germany and Franco can surpsss it let them forwsrd a bottle. Mr. Brooke in the same vicinity, who hss been engaged in the same business, is now giving more attention to raising. He is grsfting his old stock with this view and some of bis neighbors are following his advice snd example with good results. Mr. B. put up about 10 tons last year. If that good old preacher and carpenter in the days of the flood hsd only known how to take the grape dry, he would to this day have been looked upon as one of the best navigators for both worlds that ever lived, but slas! alas! in his latter days, from sll acconnts, he would scarcely *navigate* at all. Few sheep are found in this section except through the summer, for it is rather cold for them in winter; one flock of 600 hesd wss seen grazing nesr El Dorado, but it is *the country* for the

Angora Goat.

This snimal browses more than the sheep or the cow and can make its way among the chsprral without losing its fleece, so that many plsces both higher in the mountsins than this and along the foothills, in places not suited for other live stock, can be utilized. It is said that there are thousands of acres in our monntain counties thst can be occupied by the goat that is fit for nothing else. Here is occupation for idle hands and idle cspital. I called upon Mr. N. Gilmore, superintendent of the Gilmore goat breeding association, two miles south of El Dorsdo, who hss under his chsrge about 2,000 head, full bloods and grades, all told,—of the former 180.

To say that the sight of tbis flock, nearly all white in color, and msny rich of fleece—the skipping of hnndreds of kids, and novelty of the whole, gave me pleasure, is a tame expression—I was a boy again. It is estimsted that the number of goats on this coast will reach 200,000. Of this number there are not more than 600 pure breeds.

The clip of pure breeds and grades, from fourth cross npwards, will reach from four to six pounds, bringing from 85 cents to $1.00 per pound; lower grades yield from one to three pounds, worth 20 to 40 cents. The whole clip of the coast this season will probably reach 40,000 pounds—produced principally in the counties of Monterey, Santa Cruz, Santa Clara, Mariposa, Calaverss, Amador, El Dorado and Placer.

The Gilmore association have shipped already this season to the Jamestown manufactory 9,000 pounds, 2,000 pounds of which were from the hand here. Many are engaged in the business to some extent in this county. In addition to this flock of 2 000, which is the largest, Mr. Cummings of Georgetown has 1,200; Dr. Shaw, Pleasant valley, 800; Mr. Schleiffer, Lstrobe, 800; Mr. Clsrk, Shingle Springs, 600, Mr. Litten, Green vslley, ssy 250, and other flocks larger and smsller than last, making in the sggregate for the county sbout 15,000 head.

K.

[Editorial Correspondence.]

The Centennial at Philadelphia.

Progress of the Exhibition.

The weather for the most of the time since the opening of the exposition has been very unpleasant. It has rained more or less, nesrly every day. We are now—Thursday P. M., May 18th—experiencing the third day of a continuous rain, with only slight pauses, at distant intervals. Of course such westher seriously affects the revenues of the exposition; for sight-seeing in a cold rain storm is unplesssntunder the most favorable conditions. It is true that one might spend an entire dsy in admiring the wonderful display of the handiwork of all nations as shown in the main building, or in examining and studying the almost endless variety of machinery in the building appropriated to that purpose; but the average visitor prefers to go about a little, for variety, and to get a little fresh air now and then, as a change from the smell of oil and steam, or the confined air overloaded with emanstions from the bodies and exhibits of a world in miniature, such as is met with in the building last referred to.

The avenues and most of the minor paths abont the grounds are covered with asphalt; but there are many exceptions, and all are jnst now badly cnt up by the progress of "improvements" which are going on in all directions—laying down gas and water pipes, general road repairing, and the use of temporary or permanent railroad crossings, etc. Moreover, the avenues at best are filled with inequalities and depressions, which the water is sure to find and hold with the most provoking persistency. At the more distant points, snch as the women's pavilion and agricultural hall, the march of improvement is so extensive and universal, and the mud so deep and stiff, that pedestrianism is almost out of the question, and so is the progress of the rolling chair. In addition to the inconveniences at the grounds, the trouble and disagreeableness encountered in getting there is worse than all else—the main street spproaching the grounds is new and unpaved, without sidewalks and almost impassible with Philadelphia clay reduced to mud. This state of things drives almost everybody into the street cars, where muddy boots, wet overclothes and the steaming, stifled atmosphere of the overloaded vehicle is almost unendurable.

These inconveniences might be endured uncomplsiningly for a while, were not "Old Probs" so tantalizingly reticent as to any favorable promises for the esrly future; so I suppose we shsll have to keep ourselves with all possible patience, and qnietly endure what cannot be avoided.

The Grangers' Encampment.

Just here I might venture a hint to our California and Oregon Patrons, mechanics snd all who are not especially desirous of having their nsmes registered st the first hotels, that if they will mske the Grange encsmpment, at Elm station, on the Pensylvania railroad, their stopping place, they will avoid the inconvenience and stifling crowd of street cars; as they can tske the large and roomy cars of thst road at their new depot, directly across the street from the main entrsnce, from which the street cars slso take their departure, and be csrried to their rooms in less thsn hslf the time occupied in reaching a hotel snywhere in the central part of the city by the city cars. The railrosd sells tickets at the rste of four for 30 cents, and the street cars four for 25 cents. All respectable people—but no others—can find quarters at the encampment.

The Daily Attendance.

Owing to the little nnpleasantness above alluded to, snd to the very general and well founded impression through the country that the exhibition wonld not be in snything like full readiness for several weeks after the "opening," the attendance, thus far, has been much less than was expected by the aversge Philadolphisn, who hsd counted, with much confidence, on a large influx of visitors from the very start, sufficient to overcrowd all the hotels, etc., snd extend a liberal patronage to the fruit and fancy shops of the City of Brotherly Love. The fact that no such crowd has put in an sppesrance, and that ample accommodstions can still be had at almost every hotel, has served to keep the price of board end lodgings down to very near or quite ante-Centenuial prices—a fact which goes a long way in mitigation of the inconveniences growing out of the bsd state of the weather.

It is now said that the attendance upon the first day was greatly exsggerated—that the actual amount of money received showed a paying admission of only about 77,000 people. Since that time the paying visitors have sveraged somewhere from 16,000 to 25,000 per diem—according to the state of the weather. The amount of receipts being somewhat less than half these figures, does not make a very encouraging financial exhibit, especially when it is known that the current expenses cannot fall much short of $10,000 per dsy. It is said that abont 1,000 special policemen are in the regular employ of the Commission. I understand, however, that the Commissioners are not particularly disappointed that the attendance has so far been le s than was anticipated, from the facts already alluded to, and from the further fact that the attendance is much in excess of the corresponding days at either Paris or Vienna. It is confidently expected that a considerable increase of visitors will be observed from and after the middle of June; but there will be no lsrge increase of those who come to study until everything is in perfect readiness.

The Noise of the Hammer and the Saw

Still mingles with the music, and is heard, in fact, all through nesrly every building and portion of the grounds. Agricultural hall is perhaps the most bsckwsrd in preparation. Whole sections in both agricultural hall and the main building sre still covered with unopened boxes, snd artisans are bnsy over the unfinished work of fitting up. The most of the American exhibitors and the English and their colonial brethren are in ehape and busily employed in interesting and entertsining the numerous visitors at their respective exhibits. The Central Pacific railroad agent is still waiting for his lost car of goods. It is somewhere this side of the Rocky mountains, but just where I believe he can't find out. Many of the State buildings are also dragging slowly along, and notably so that of California, which, however, when complete will be one of the finest on the grounds. The sections most tardy everywhere are the Spanish, Portuguese, French, Mexicans, Japanese and Chinese. There is no such thing as hurrying either of them. Slowness seems to be characteristic of the Latin and Mongolian races. But jndging from what little they show thus far, their full exhibits will be unique, interesting and instructive, by way of showing to better advantage in contrast the progress of other nations.

It is plainly to be seen, however, that the general exhibit grows more and more attractive with each day's advance. I hope next week to be able to commence my notes on the different buildings, each of which I propose to take up in brief detail. Shall send diagrams of the interior of all the principal ones, which will show the readers of the PRESS the exact position and relative proportions occupied by the different nationalities. These diagrams, together with the plan of the grounds, already given, and the accompanying descriptior, will be found very convenient guides for persons intending to visit the exhibition—more useful, indeed, than any of the numerous guide books which are peddled on the streets and in the grounds and buildings. The readers of the PRESS will do well to preserve them carefully.

The State Buildings.

The various State buildings, as indicated in

my last, are mostly situated in out-of-the-way places; yet a feeling of State pride and natural curiosity leads all visitors who come from the States which have erected buildings to look them up, and enter their names in the books of registry there kept. These buildings in most instances are costly, and yet of but little practical use or convenience. The buildings themselves, so far as the crowd of sight-seers are concerned, are mostly empty, and yon may secure as much privacy in their reception rooms as was obtainable in the average San Francisco street car immediately after the late combination to raise the price of tickets. I believe there are now 25 of these buildings completed or in progress, as follows: Ohio, Indiana, Illinois, Wisconsin, Michigan, New Hampshire, Connecticut, Massachusetts, Delaware, Maryland. Tennessee, Iowa, Missouri, Pennsylvania, Vermont, Arkansas, West Virginia, Mississippi, California, New York, Kansas, New Jersey and Virginia. Nevada, as already stated, has put up her building, and occupies it practically with a five stamp quartz mill. She contributes, however, $1,000 toward the California building, which will be used as a headquarters for California, Nevada and Oregon. Maine has established her headquarters, and opened a book of registry directly in the midst of her principal exhibit near the east end of the main building, where she is making a very excellent showing of her products and manufactures.

I fear the California building, although it will be quite as artistic and pretentious as any, will nevertheless be a poor place for the headquarters of the emigration bureau. Mr. Martin, I think, will find it to the interest of the cause he represents to establish his headquarters near the California and Oregon exhibit in agricultural hall—some three-quarters of a mile distant from the State building. He will find more inquiries after California there, in two hours, than in the other locality in an entire week. Mr. Scupham, of the railroad exhibit, has fitted up a very cosy little room within the lines of his exhibit, which, with a little enlargement, would make a very convenient, and decidedly the best location for the purpose which Mr. Martin has in view. The State buildings are failures so far as any practical value is derivable therefrom.

The Fourth of July.

It has been determined to make a great day of the coming Fourth. The Centennial authorities have already held several meetings for the purpose of discussing and arranging the details of a programme which shall be commensurate with the importance of the occasion. It is proposed that the demonstrations and celebrations to be provided for shall cover a period of some two weeks, and under the auspices of the Centennial management they will be so arranged that, if possible, no serious inconvenience can accrue to the general public on the Centennial grounds from overcrowding or otherwise. The anticipated rush of visitors upon the great national holiday, and during the period immediately preceding and succeeding it, has necessitated such an apportionment of the more conspicuous features of the great celebration as will supply a special programme for each day for at least two weeks. By this arrangement the rush which would otherwise be confined to the Fourth will be distributed over a number of days, to the manifest comfort and convenience of visitors on all the great days of the exhibition. The programme will be made out and published at an early day, so that it may be fully circulated throughout the Union in time to give ample opportunity for all who wish to prepare themselves for participation in such parts thereof as they may select.

Products of Oregon.

As Oregon is the only State or Territory on the Pacific coast which has yet completed her exhibit, I will close this letter with a brief description of the same. The managers of this exhibit are Mr. A. J. Dufur, State commissioner, and Messrs. C. E. Dubois and E. W. Ryan. They have erected and placed in order a magnificent pyramidal trophy, composed of the products of that State. The show is strikingly and tastefully arranged near the center of agricultural hall, with "Products of Oregon" conspicuously emblazoned on either side. The show attracts more attention and inquiry than almost anything else in the entire building. Notwithstanding every package and article is carefully described by a label conspicuously placed thereon, it still requires the almost constant attention of two persons to answer the numerous questions which are asked about the wonderful country which can turn out such productions. The exhibit is a splendid advertisement for Oregon and a practical display of her resources, from which she cannot fail to realize much substantial gain.

I had no little difficulty in getting the information in regard to this exhibit which I desired on account of the throng of people about it, who were continually calling the attention of the gentleman who was assisting me, to answer their questions about the price of land in Oregon, the nature of the soil, character of the climate, prices of produce, cost of living, etc.

The show of wheat in this collection is particularly good, and attracts marked interest from farmers from all parts of the country. In company with several others I carefully compared several of the varieties with the same varieties shown from some of the Northwestern States and from California, and found the Oregon wheat quite superior in every instance. Judge Creigh, the California commissioner, was with us a portion of the time. As a Californian I greatly dislike to own up to such facts, but candor compels it, and when judgment is pronounced by the authorities of the commission it will surely be recorded as above. The wheat was shown in the kernel and in the ear, with the stalks and roots. The yield also, as given, was quite as remarkable. Golden Amber, a spring wheat, averaged 62 bushels to the acre: several varieties of club wheat ran from 45 to 55. The Mediterranean, seven-headed wheat, averaged, from different localities, from 80 to 100 bushels to the acre. This variety, I believe, is not suited for domestic use, but its large yield renders it very valuable for feeding purposes. A sample of 90-day wheat was exhibited which was sown in the ashes upon newly cleaned land, burned over but neither plowed nor harrowed, the grain being brushed in. It was harvested in 90 days from sowing and yielded 30 bushels to the acre. White velvet wheat yielded 48 bushels, and Chile wheat, spring, 57 to the acre.

Two varieties of rye were also shown, which, on comparison with other exhibits, presented the same evidences of superiority as was noted in the wheat.

Oats were shown in five varieties: Surprise, 72 bushels to the acre, and 50 lbs. weight to the bushel; Somerset, 75 bushels and 45 lbs. weight; Side oats, 87¼ yield, 43 weight; White Norway, 78 yield and 43 weight; German White, 68 yield, 50 weight.

The various woods of Oregon are also tastefully displayed in the rough and in various degrees of finish. A section of cedar cut from a tree 198 feet from the ground measured 6.9 feet diameter; another, taken 103 feet high, measured 7.4 feet. It was very naturally inferred from such an exhibit that Oregon had "big trees" as well as California.

Textiles—Wool and Flax.

The wool exhibit, though in small samples, was most remarkable for fineness and length and evenness of fiber. Wool from an Oxfordshire sheep was shown (combed) 15 inches in length of fiber; combed Cotswold 16 inches long, which was pronounced, by a wool buyer present, who examined it with a glass, to be perfect in uniformity of fiber, and of a quality excellently well suited for the manufacture of delaines. These wools were shown in the fleece, washed and unwashed, as well as combed. Some very superior lamb's wool was also shown—French merino unwashed.

A very interesting and suggestive display of flax is also shown here—in the stalk, hetcheled, and in the seed and cake. It appears that this flax is an experiment entered upon by two brothers named Williamson (Scotchmen), who arrived in Oregon some two years ago, and hired a piece of land near Albany, Linn county, for which they paid $15 per year rental—the owner seeding and sowing it. The flax is rotted, hetcheled and shipped to Europe for the manufacture of linen; the tow resulting from the hetcheling process is also utilized. The experiment is said to have been a very successful one, so much so that the brothers have been encouraged to extend their operations. The fiber is pronounced to be very long and superior in quality. These facts appear to indicate that this business might be made a very extensive and lucrative one. Californians will do well to make a note of it.

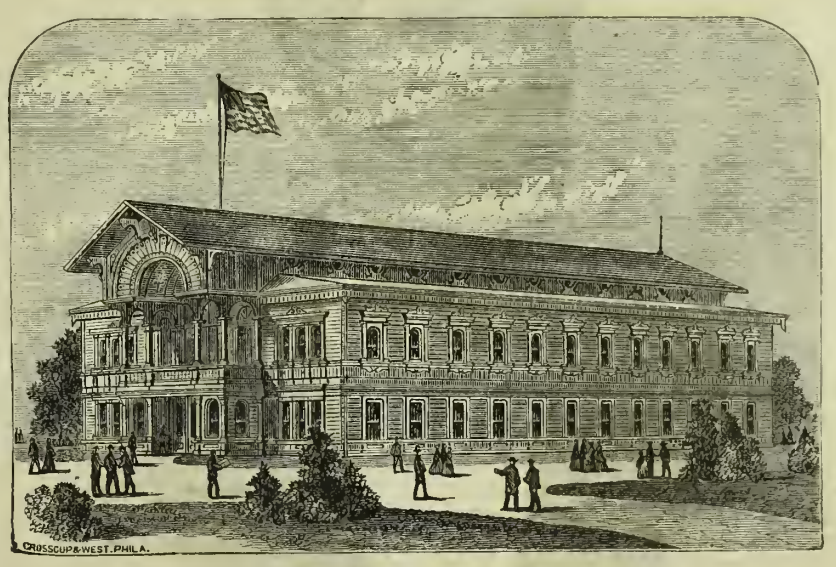
There is also a fine display of Oregon dried fruit—by the Alden process—which attracts much attention from its superiority over Eastern fruit dried by the same process.

A Novelty—Cider by the Yard.

I will close my notice of this interesting exhibit by calling attention to an interesting novelty shown by Mr. Hampton Kelly. It consists of a roll of a leathery-looking substance, about the color and general appearance of jujube paste. A small piece cut from the roll tasted very much as a person might suppose sweet cider could taste if evaporated to the consistency of a tough jelly. This, indeed, is just what the substance is. It is made by a process recently patented by Mr. Kelly, substantially as follows: The fresh juice of the apple, before it has undergone fermentation, is thrown, in the form of spray, upon a revolving sheet iron cylinder, kept moderately hot by steam, so that the water is gradually evaporated from the juice, leaving the condensed substance upon the cylinder, enveloping the same with a covering about one-eighth of an inch thick, which is then cut and peeled off in a sheet of uniform thickness, which may be rolled up like a sort of oil cloth, capable, to all appearance, of being kept for an indefinite length of time. The sample shown was made last fall. It is said that it will readily dissolve when placed in water, in which condition it forms a very palatable drink. About eight barrels of juice is thus condensed into the space of one. As a new article of manufacture this substance may come into important use for various culinary purposes, to say nothing of its employment as a drink.

I send you an engraving of the newspaper pavilion, which is a credit to the newspaper interest of the country and to the enterprise of Rowell & Co., of New York, by whom it was erected. Visitors from far off regions will find their home papers neatly filed and ready to welcome them with familiar faces. Each paper can be found by referring to its number in the directory to the building. The RURAL PRESS may be seen at No. 323. W. B. E.

Centennial Grounds, May 19th, 1876.



THE NEWSPAPER PAVILION.

HORTICULTURE.

Fig Culture in California.

EDITORS PRESS:—I send you the following article on figs more for the sake of drawing out other correspondents than for the information it contains. There are men from all parts of the world in our State, and no doubt some of your readers can give us just the information we want.

There are not many localities away from the chilly sea winds that will not do for figs. They seem to be particularly well suited to the hot valleys and hills east of the Coast range. Very few cultivators have made this fruit a specialty, but we are gratified to note a marked improvement in the way they are put up for market. The most important consideration is the proper varieties.

Most of the dried figs are from the black kinds. We have not grown the right kind of white one. The large white kinds do not dry well, although they are fine to eat green. The people who will buy our figs are not accustomed to seeing the black varieties, and therefore they will not sell as well as the others. Some of the small kinds are of delicious flavor, and, if once introduced, will sell as well or better than the larger ones. Most of the fig trees sold in this State are of kinds grown under glass in the East. Some have been brought by immigrants from the south of Europe. Among the former are kinds for eating green and also a few that will do to dry; of the latter I have found some valuable ones for drying. I will mention some of the kinds that have been thoroughly tested on my place.

Varieties Described.

Brown Turkey—a large, light brown fig, fruit oblong, very large, flesh red, tree a poor grower but a very abundant bearer, not valuable for drying. This fruit is often sold in San Francisco market as the White Smyrna.

Brunswick—a large black fig, quite productive tree, a good grower, dries well, the largest and best black fig I have.

California—a strong growing, productive black fig, not quite so large as the above, dries very well; it is one of the most valuable shade trees we have.

Genoa, White—fruit large, roundish, has very thin skin and sweet red pulp, very fine for eating, but dries poorly. This fruit is often seen in Sacramento market.

Genoa, Black—I do not see anything to recommend in this fig; it is smaller and inferior to the Brunswick or California.

Celestial—from the Southern States, a small delicate flavored fig, not valuable to dry.

Ischia, White—a very hardy, abundant bearing fig, rather small, of the best flavor, very thin skin, dries well. The tree makes a pretty round head and is valuable for shade.

Ischia, Black—like the above, except its color.

White Marseilles—a delicious fig, thrifty and productive, dries well, pulp white.

Endrich—This is a large white fig with white pulp, rather dry but very sweet, the best kind for drying I have ever experimented with. It was imported from Europe some years ago.

I imported several varieties from Europe some three years ago, which will fruit this season. They are kinds for drying. There is also a number of others which I have picked up in this country, but I have not had time to test them thoroughly.

Curing.

The curing of this fruit is very simple. They should be fully ripe before picking from the tree. They should then be placed in the sun seven or eight days, or until they are properly dried, taking care to turn them often, as they mildew easily. When you are satisfied that they are properly cured, pack in large boxes to go through a sweat; this softens their skin. They should be dried again and packed for market.

No fruit can be raised cheaper than this; the trees are subject to no blight, disease or insects, they are wonderfully prolific; under good cultivation they will bear a crop on the third year sufficient to pay for cultivation. The curing is not expensive or troublesome; perhaps when we rightly understand the management of the driers by artificial heat, we will find it still easier. I have experimented enough to satisfy myself that there is no trouble to dry them well and quickly. They were partially cured in the sun, then put in a small drier for several hours. They were thoroughly cured and ready to pack away. The skin was softened and the figs cured so well that they did not mildew.

Market for Figs.

The next important subject is the market. We can grow all the figs that will ever be used in the United States; at the price now paid for them we can make money. There is no doubt that we have the climate and soil; we only need the right kinds, and the skill and patience in curing and packing for market. We cannot expect to command the best price at first, as our products will not be equal to imported articles until we have learned by practical experience all the detail of their management. When we can show them that our fruit is handled in a cleanly manner; is free from insects; is put up in neat attractive packages; then we can claim the price it is worth. W. B. WEST.

Stockton, Cal., May 22d.

Bill to Restrict Chinese Emigration.

WASHINGTON, May 15th.—Senator Sargent introduced to-day the following important bill to restrict the emigration of Chinese to the United States:

Be it enacted, etc., That no master of any vessel owned in whole or in part by citizens of the United States, or by citizens of any foreign country, shall take on board such vessel at any port of the Chinese empire, or at any other foreign port or place whatever, any number exceeding ten Chinese passengers, whether male or female, with the intent to bring such passengers to the United States, or shall bring such passengers within the jurisdiction of the United States.

SEC. 2. Whenever the master of any such vessel takes on board of the same at any foreign port or place any greater number of Chinese passengers than is prescribed in the first section of this Act, with the intent to bring such passengers within the jurisdiction of the United States, he shall be deemed guilty of misdemeanor, and shall, for each passenger so taken on board and brought within the jurisdiction of the United States exceeding the number of ten, be fined $100, and may also be imprisoned for a term not exceeding six months.

SEC. 3. The master of any vessel arriving in the United States, or any of the Territories thereof, from any foreign place whatever, at the same time that he delivers the manifest of the cargo, and if there be no cargo, then at the time of making report or entry of the vessel pursuant to law, shall, in addition to the other matters required to be reported by law, deliver and report to the Collector of the District in which such vessel shall arrive, a separate list of all Chinese passengers taken on board of his vessel at any foreign port or place. Such list shall be sworn to by the master in the same manner as directed by law in relation to the manifest of cargo, and on the refusal or neglect of the master to comply with the provisions of the section he shall incur the same penalties, disabilities and forfeitures as are provided for refusal or neglect to report and deliver manifest of cargo.

SEC. 4. The amount of the several penalties imposed by the foregoing provisions shall be a lien on the vessel violating these provisions, and such vessel shall be libeled therefor in any Circuit or District Court of the United States where such vessel shall arrive.

SEC. 5. Informers shall be entitled to one-half of any penalty or fine collected under provisions of this Act, upon their information.

SEC. 6. Nothing herein contained shall be held to repeal or modify any law forbidding the importation of coolies or of females for immoral purposes into the United States; provided, that no consul or consular agent of the United States residing at any port from which any vessel carrying Chinese passengers may take her departure, shall grant the certificates provided for in Section 2162 of the Revised Statutes, for more than ten Chinese passengers on any one vessel.

SEC. 7. This Act shall take effect from and after the 1st of September, 1876.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fully one year in advance for the Pacific Rural Press can receive the California Patron *free*, besides other premiums. See our premium list in another column.

The Debris Evil.

As our readers know from the reports which we have printed of their meetings, the Patrons of Yuba City Grange have raised a strong and united voice against the danger to their homes from the swiftly accumulating mining debris. We find in a speech, delivered at a recent picnic of the Grange, by Richard Bayne, Esq., the following stirring allusion to this vital question. The speech was printed *in extenso* in the Sutter *Banner*. Mr. Bayne said:

Hitherto the farmers alone have shown entire want of appreciation of unity in what concerns their interests. When threatened with a common danger, they found themselves entirely without the means of defense, and when the time for decided, resolute action had come, they had first to consult, then organize for defense, decide upon the proper course and prepare for their protection, while all the time their opponents were united, vigilant and active. With others, however, the first appearance of danger was like the call to arms in a camp of well drilled soldiers, sleeping on their burnished arms, who at the tap of the drum spring into rank. The past winter's experience afforded a striking illustration of this. Although your homes are being rendered uninhabitable, your farms are being buried out of sight and your rivers filled up by mining debris; although this lovely and fertile valley is threatened with destruction; although agriculture, now the leading interest of this glorious State, is suffering almost irreparable injury, yet, though you petitioned, aye, supplicated for some measure of relief, you were denied even an investigation into the extent of your wrongs. You asked for your rights, you met only indifference, and, it might almost be said, contempt. It was as if a highwayman had robbed and then stretched you wounded and bleeding by the wayside, and refused, not only to let your wounds be dressed, but even to allow them to be examined.

And why did you fare thus? Certainly not because of your insignificant numbers, your poverty, your lack of influence as individuals; you possessed elements of power which, in themselves, were immense—your ballot, your numbers, your wealth; but, unhappily, you lacked those supreme elements of power, unity and organization. Your opponents had them, and, though vastly your inferiors in all else, you fell helpless before them.

Daniel Clark.

The subject of our sketch was born in Kings county, Ireland, February 14th, 1824, and is now in the meridian of his manhood. When he was four years old it was decided by his father to remove to the Western World, and, with his family, he sailed in the month of May from Dublin. Three days out their vessel was overtaken by a storm and driven into Milford Haven, Wales, where his mother, already sick, died and was buried. The father, now left with three motherless children, Daniel and his two infant sisters, continued his journey, landing at Quebec, Canada, in July, 1828.

In 1836 his father, having contracted a second marriage, again removed with his family, this time settling in the State of Missouri. At the age of 13 years young Daniel, on account of real or fancied grievances, left the home of his father, deciding to try life on his own account. He hired himself to a neighbor to cut cord-wood at eight dollars per month.

At 18 he was employed for a time as overseer on the plantation of one Albert Hancock. Soon after this the donation to actual settlers in far off Oregon of large homesteads was being discussed in Congress, and finally become a law Young Clark at once decided to try his fortune in the Willamette valley, if it was possible to reach it, which was a matter of some uncertainty, considering the almost trackless distance and the danger from Indians; nevertheless, on the 13th day of May, 1844, he left the Missouri with a company commanded by Col. Neil Gillism, bound for Oregon Territory. His outfit consisted of one mule, a Mexican saddle, Spanish bridle, five suits of clothing, a good rifle and a few dollars in coin.

The spring and summer of 1844 was wet almost beyond precedent, and it would be impossible to describe in this sketch the hardships to which this company was subject in crossing the plains, for the ground for a long distance west of the Missouri river was so thoroughly saturated with water that double teaming was necessary much of the time, and all the streams in their track were so swollen that crossing was rendered most difficult and dangerous. After many hardships, adventures and hairbreadth escapes, in which young Clark was the most daring actor, the company reached Fort Hall, where Clark, with two others, separated from the company, and set out for the Willamette valley on horseback.

The first night they were joined by two other boys, making a party now of five persons, and their entire stock of provisions consisted of 25 pounds of dried buffalo meat.

Reaching Salmon falls of Snake river, they laid in a supply of dried salmon. At Ft. Boise their stock of provisions was reduced to eight salmon skins; here, however, they succeeded in buying 16 pints of flour at one dollar per pint, and on John Day river they procured of the Indians one peck of potatoes. Soon after this they were met by parties from the Dalles, who supplied them with plenty to eat till they reached the Columbia river. At the Dalles the little party was broken up and scattered, young Clark coming down the Columbia river, while some crossed the mountains. His first winter in Oregon was spent making rails, subsisting on beef and boiled wheat, and wearing moccasins, as boots and shoes were not to be had in the country.

In September, 1846, he was married to Miss Bertha B. Herron. In the fall of 1848 he

DANIEL CLARK, WORTHY MASTER OF OREGON STATE GRANGE.

went to the gold fields of California, returning in the winter for his wife and child, whom he took with him to California in the spring of 1849. In November, 1850, he returned to Oregon and settled five miles east of Salem, on a section of land which comprises his present beautiful home.

In December, A. D. 1861, it was his misfortune to lose by death his wife, who left him with five children, four sons and one daughter. In June, 1865, he married his present wife, whose maiden name was Miss Harriet Scheoffer.

Bro. Clark was active in organizing the Oregon State agricultural society, served several years as its chief marshal and for two terms as president of the same. On the 11th day of July, 1873, Salem Grange was organized with Daniel Clark as Master, he having been most active in getting it up.

He was from the start fully in accord with the Grange movement, and when, in September, 1873, National Deputy Garretson organized the State Grange of Oregon, the representatives assembled with great unanimity selected Bro. Clark for their Master, and to this office he was again elected in 1874, and his term will not expire until next fall.

Although Master Clark's jurisdiction is more remote than is any other from the meeting place of the National Grange, he has not missed one of its sessions since he has been a member of the body, and when there he has always been a busy member and, we may say, an earnest, indefatigable worker.

Bro. Clark is above medium size and a strong and well built man. Temperance in habit and manner, combined with a good degree of firmness, has enabled his success in life. He devoted much of his time personally to the organization and instruction of the Order in his jurisdiction, traveling over a large portion of his field in so doing.

From the Granges.

Indian Valley Grange.

Editors Press:—As I believe you do not hear from our Grange, I take the liberty of a Granger to inform you that we are a live and prosperous Grange. Many untrue stories are in circulation in order to retard our progress and prevent our neighbors and friends from uniting with us, but still we are gaining in numbers and our prospects brighten as we go on. We have proposals for membership every meeting now. I believe the Grange is about all the place where woman can meet man as his equal. The men may wince a little, but we have them in a close place, for without the sisters who would prepare the feast which they all enjoy so much? Let us remember our motto and cultivate the flowers of good works and then we will be appreciated. I feel safe in saying that this Centennial year will be a hard one on many ranches in these parts, as the snow on the mountains, with the usual amount of rain, has kept the water so high that is impossible to sow nearly the usual amount of grain. The fruit crop is nearly killed, Granger.

Indian Valley, Plumas Co., May 18th, 1876.

Bennett Valley Grange.

Editors Press:—Just to let you know that the pioneer Grange of Sonoma county is still alive to the good of the Order, we will say that they celebrated their third anniversary on the 27th inst., with a strawberry festival. Members were present from Petaluma and Santa Rosa Granges and all enjoyed the music and social time well. The berries were splendid and other good things provided by the sisters. Long may they live to give life and moral training to the Order. After the feast some talked business, some sung, others played and danced, and after the time of two hours there were three loud raps heard from the Master's office, and soon all were quiet on seats, and the Grange resumed business in earnest, and it was late in the day when all went home, well pleased with one well spent day of business and pleasure. Quill Driver.

Bennett Valley, Sonoma Co., May 18th.

Tehichipa Grange.

Editors Press:—Again we claim a space in your columns to let your many readers know that we are not asleep. Last night was our regular monthly meeting, at which a great many were in attendance. We initiated a class of four into the mysteries of the fourth degree, after which the good sisters spread the table with all manner of good things; at which we all, with a great many friends, regaled ourselves.

Should you ever have occasion to pass through this section of the country, don't forget to stop a few days with us. It is something grand to stroll over the grass-covered plains and through the cool forests, and look up to the tops of the high surrounding mountains covered with snow, then down on the hot plains near Bakersfield on one side and the Mojave desert on the other. The crops here will be exceedingly good, owing to a wet winter and mild spring.

The following changes have been made in our list of officers: P. Norboe, Sec'y; J. Stranz, G. K.; Miss L. Wiggins, L. A. S. P. N.

Tehichipa, Kern Co., May 8th.

Ojai Grange.

Editors Press:—Our Grange is in a flourishing condition; six new members added last month. Our business association has been quite a success. All our orders for goods are sent to the Grangers Business Association at San Francisco have been filled with promptness and dispatch, giving perfect satisfaction.

J. Hobart, Sec'y Ojai Grange.

Nordhoff, Ventura Co., May 2d.

The Statement of Bro. M. D. Miller.

Editors Press:—I desire to briefly notice Bro. M. D. Miller's communication of some two weeks ago. It has done many good people here a gross injustice, though probably he meant it all for the "good of the Order;" but such "unkind outs" have a strong tendency to drive people from rather than attract them to the Grange. He represents that we once had the banner Grange of southern California with a membership of 80, and that now we only have 15 active working members. Now this seems a little like arrogance upon the part of Bro. Miller, to sit in the Grange as its Worthy Master and denounce 65 out of 80 as a set of "dead heads."

Now to the facts in the case. Some became dissatisfied in the Grange, (not with Grange principles,) paid up their dues and asked for withdrawal cards, but were positively refused them. Again, on the third day of April, 1875, we had a harvest feast. We had been teaching temperance and economy; at this banquet wine was spread upon the table in profusion. Good members were mortified at this display and asked the privilege of paying up their dues and retiring from the Grange quietly; this was refused them.

Again the sanguine members organized themselves into a corporate body to do general merchandising, forwarding and commission business, warehousing, wharfing, etc. Thus we started with brightest hopes and sailed over placid waters for a term of five months, and came to a sudden standstill with a debt of $15,000 hanging over our heads. Our vessel was wrecked, our doors were locked, guards put over our goods at a cost of $15 per day—costs ran up to $2,000, Patrons of Husbandry had to mortgage their homes, and every dollar they had to save a whole community from being sold out at sheriff's sale. No wonder there should be such a scattering among the "dead heads." But Bro. Miller was one of the "biggest" toads in the puddle and has no right to be croaking now. Many of these 65 "dead heads" are well respected and well to-do-citizens of our most beautiful Santa Maria valley.

J. M. McElhany.

Santa Maria, May 17th.

We regret exceedingly that matters of this kind are presented for publication, but we have no choice but to give each side a hearing when they claim it. We cannot enter into the merits of a controversy which arises from a local difficulty, and we trust our correspondents will spare us. We have taken some liberties with Mr. J. M. McElhany's letter, but we believe the essentials of his statement are preserved.—Eds. Press.

The Independent Order of Good Templars in California apparently believe in pushing on a good cause. We notice that they have just put into the field a *third* lecturer and organizer, our worthy Bro., Elder J. W. Webb, pastor of the Union church, in the Lompoc temperance colony, and chaplain of the Grange at the same place. He is to spend this month in Ventura, Los Angeles, and perhaps San Bernardino counties. As his lecturing will be generally at night he will probably find his way into some of the Granges which meet in the daytime, and give some of his pointed and pleasant talks on the "Good of the Order." He promises to send us anything he may see of special interest to our many readers.

Election of Officers.

Indian Valley Grange, Indian Valley, Plumas Co., No. 259.—E. D. Hoselkus, M.; A. J. Ford, O.; John Thorn, L.; J. A. Hickerson, S.; D. Hedrick, A. S.; J. T. Taylor, C.; R. Thompson, T.; G. W. Boyden, Sec'y; John Sargeant, G. K.; Miss L. C. Blood, Ceres; Mrs. L. E. Lee, Pomona; Miss R. S. Blood, Flora; Miss Sarah Hardgrave, L. A. S.; A. J. Hickereon, E. D. Hoselkus and A. J. Ford, Trustees.

The President has proclaimed the late resolution of Congress for the delivery of local sketches of the country's progress at various places on the Fourth of July.

The Senate Committee has agreed upon a bill which will practically restore the franking privilege on letters, documents and packages, under stringent regulations against the improper use of franks.

Agricultural Notes.

California.

ALAMEDA.

Reclaiming Salt Marsh.—Washington *Independent*, May 27: In our issue of the 13th instant we stated that barley had been grown this year on the salt marsh near Dumbarton point, which looked as well as that grown on the upland in this vicinity. On Tuesday of this week, E. L. Beard, of the Mission, exhibited on California street, San Francisco, sample stalks of both barley and wheat, now growing on reclaimed salt marsh land near the point, and on Wednesday Mr. Beard left a fine sample of barley and wheat grown on the same kind of land between Alviso and the point, which can be seen at this office. The reclamation process consists simply in shutting out the tides by constructing dykes. As the grain mentioned is from seed put in the ground last December, this is ample proof that this land heretofore deemed worthless for agricultural purposes can be reclaimed and successfully cultivated. Until this experiment was tried it was supposed that much washing with fresh water would be required before the land could be used. Mr. Beard states that after the construction of the dykes, shutting out the flow of the tide, a highly nutritious volunteer "salt" grass soon started, making excellent pasture for stock. The tract undergoing reclamation consists of 20,000 acres. Four thousand acres of the tract are already reclaimed and are partly under crops.

AMADOR.

Snow in Harvest. — *Ledger*, May 27: A heavy snow fall during harvest is a most extraordinary occurrence, and worthy of note by the local reporter. Settlers of over twenty years standing assert that they never saw the piles of new mown hay wrapped in a mantle of snow until Saturday last. The storm which then struck it was as fierce in its character as it was untimely in occurrence. The blinding sleet and snow, and the thermometer ranging somewhere near the freezing point, reminded one of the midwinter rather than the balmy month of May. At Hipkin's station, on the Silver Lake road, from 18 inches to two feet of snow fell, and over a foot is reported at Whitmore's mill, about 10 miles beyond Volcano.

The Fruit Crop.—It is some consolation to be able to state that the damage to the fruit crop by the severe frosts last week was confined to a radius of a few miles around Jackson. All along the road towards Latrobe the vineyards are the picture of health and vigor, and the grape crop throughout the county still promises to be an average one.

BUTTE.

Agricultural Society.—*Record*, May 27: At a meeting of the U. S. agricultural society, held May 20th, the following gentlemen were elected to fill the offices for the ensuing year: For President, Marion Biggs; Vice-Presidents, I. R. Bennett and E. Hallet; Secretary, John H. Williams; Treasurer, Charles Faulkner. The following Directors were chosen: Butte county, John H. Guill, R. McEnespy, J. W. Gilkyson, R. L. Daniels, E. Crouch, William Van Woert, J. O. Weed, J. J. Waste, Harmen Bay, J. W. B. Montgomery, Moses Wick, R. C. Goodspeed, F. A. Shaffer, Lewis Posey, Oscar Greenbaum, Max Brooks, Allen Henry. Colusa county, John Boggs, G. W. Hoag. Tehama county, J. C. Tyler, E. J. Lewis. Shasta county, J. J. Bell. Lassen county, C. C. Goodrich. The following honorary vice-presidents were named: William Harkey, Sutter; D. E. Knight, Yuba; John Byers, Lassen; Charles Reed, Yolo; H. M. Bernard, Sacramento; John Hardgraves, Plumas; William McConnell, Siskiyon; Charles Lawrence, Plumas; John Brady, Tehama; John D. Goodwin, Plumas.

CONTRA COSTA.

A Potato Lesson.—*Gazette*, May 27: We have had sample donations of fine early potatoes this week from Mr. McHarry's Rodeo hills farm, and from the Franklin canon fields of Dr. Strentzel. Those from Mr. McHarry were grown on the crest of one of the hills having an altitude of more than 1,000 feet above tide level; and surely if our hill tops will grow fine potatoes, it is quite time our farmers determined to not only supply their own needs of this indispensable vegetable but the local demand, instead of paying so many thousands of dollars annually to distant producers, and all the heavy transportation charges besides. We will venture to say that there is not a farm in the county where all the early potatoes required for home use cannot be produced at less cost than they can be imported; and we have little doubt that with proper preparation of the ground, and straw mulch covering, June and July planted potatoes can be raised on almost every farm at much less than they can be obtained from abroad.

LOS ANGELES.

The Cactus Paper.—*Express*, May 27: Captain Walker was in town to-day, and we interviewed him in reference to the progress of his paper mill at Soledad. In two weeks from now he will have his 90-horse power engine at work crushing cactus and turning it into pulp for the manufacture of paper. For the present he will confine his operations to this branch of the business. The cactus, which can be procured in unlimited quantities on the desert, is stripped of its outside covering, and then carried to the mill, where the fiber is crushed and put through various processes until it is eliminated in the shape of pulp of a very superior kind. Until he has completed his machinery for the manufacture of paper, which will be in about three months from the present time, he will export the pulp to Philadelphia, where it will be turned into paper. He has a contract with George W. Childs, of the Philadelphia *Ledger*, to deliver 20 tons of this pulp every week. Mr. Childs, who employs a mill exclusively for the *Ledger*, will thus secure a supply of excellent material at a much cheaper rate than the same can be had in the East. The pulp will be baled and sent to San Fernando, whence it will be taken by car to the steamers and sent overland from San Francisco to Philadelphia.

MARIN.

A Man who Believes in Manuring: Marin *Journal*, May 25:—Flanking the great Novato ranch of Messrs. Sweetser & DeLoug on the west, and higher up on the beautiful Novato creek, lies the splendid dairy ranch of Mr. John B. Redmond, the proprietor of which has distinguished himself scarcely less by his masterly management of the land, than by his nonpareil herd of Short Horn Durhams. Although for some years deeply engaged in commercial pursuits, Mr. Redmond, when remanded by adversity to agricultural life, had not forgotten his experience in the soil of the older countries. He has a theory that the care and fair treatment of land which are essential to success in the United Kingdom and in the older States of this Union may be well invested in California. In other words, that the same labor bestowed on the soil of those countries would yield a far greater return when applied to the lands of this State. And his pastures and harvest fields demonstrate the truth of his view. No country will pay so richly for manuring as California. Mr. Redmond's cows roam over steep hillsides, where the feed is two feet high. And the mat or undergrowth is such a thick, luxuriant mass, that the soil cannot be dried out by the sun. The grass is the native alfilarea, as fine for feed as any that grows. On a 70-acre field he will cut two and one-half tons to the acre of this same native grass, and this will be the fifth consecutive year. Mr. Redmond has been in England, Ireland and Scotland, the Atlantic States, Chile and Peru, and says he has never seen a country that will pay so well for manuring as California. We are lazy and shiftless, and do not bring out the resources of our country.

MERCED.

Rye.—*Valley Argus*, May 27: Last week we rode through the country from Merced to Turlock, and in addition to the usual crops of small grain we noticed large fields of rye, which, being a new crop upon our sand plains, particularly attracted our attention. Rye seems to make a growth, being rather taller than either wheat or barley upon thin soils, and gives promise of a large yield wherever we saw it growing.

The Result of Industry.—At the invitation of our friend, Mr. Chas. W. Healy, we visited the ranch of the Healy Bros., lying on Mariposa creek, about six miles west of Plainsburg. These gentlemen own between 2,000 and 3,000 acres of land, about 1,000 or 1,200 acres of which is in cultivation in wheat and barley, and the remainder used as a pasture. The crop is good, save in spots where the overflow drowned out the grain, and in addition to a large crop of hay that has already been saved, they will harvest a crop of grain this year that will afford ample proof of the immense fertility of the soil, if any doubt ever existed in the mind of any one upon that point. The Healy Bros. carry on a stock farm, and in addition to cultivating something over one-third of their land in grain, have a band of 3,000 fine grade Merino sheep, a band of valuable horses, a few head of fine blooded cattle, etc., all of which they pasture the year round upon their own land, and about 1,000 acres rented at a low rate which lies adjoining. These gentlemen have built up this handsome piece of property in the last few years by their own exertions, having invested their earnings.

NAPA.

Shearing.—*Star*, May 26: Mr. Banks, of Pope valley, has been doing some tall sheep shearing lately, and thinks he can discount the ordinary jobs in that line. Wednesday, 17th inst., he sheared 110 sheep, in 10 hours' work. The next gentlemen is invited to come forward and relate his experience. Lacy Gray, working with Mr. B., sheared 48 sheep in the same time, after only two weeks' practice. This is considered very good.

SACRAMENTO.

Sacramento Red Land Strawberries.—*Record Union*, May 27: We received this week six baskets of the finest strawberries we have ever seen in any country. They were grown by George Rich about six miles from the city, on the red plain lands. There were three kinds, the Triomph de Gand, Colonel Cheney and Early Scarlet. Accompanying them was the following note: "Strawberries are in their hight of bearing; the crop is not so large as I have seen it, still it is fair. Many have asked me why. I attribute it to their continuing blossoming and bearing through all last fall and winter. I never saw them act so; perhaps our warm fall and winter had something to do with it, so that in the spring the strength of the vine had exhausted itself to some extent. The young vines appear fuller. Our warm, genial atmosphere is the home of the berry; our plains are well adapted to its growth. A large extent of acreage is being cultivated, and next year it will be still larger. I think our red land will in time be the home of the berry, and cultivated to a large extent, being near market, with railroad facilities near at hand. A large opening is before the producer. Irrigation, cultivation and good management are the needed conditions. Being, perhaps, the first producer on the plains, I have some knowledge of its cultivation. Having imported the variety, the Triomph de Gand, from New York some fifteen years ago and experimented with many varieties, I find the above the finest in the State, both for its sweetness, rich quality and firmness in shipping. The second crop is coming into blossom. The Early Scarlet was the first in bearing, but is more of a tart taste, similar to the Longsworth Prolific of San Jose, followed by the Triomph de Gand. The Jocunda is just fruiting, filling the place of the former. The California Cherry is a large berry, but soft—good for near market but not for shipping. The Golden Queen, still later, will come in as a fall berry. Raspberries are doing well. Blackberries are very full. The Early Wilson is half grown. Currants ripening. Gooseberries of some varieties doing well. Apples, pears, peaches and plums look encouraging. Grapes hang in thick clusters. Every prospect augers well for the fruit grower."

The Apple Crop.—We are not certain, but we are of the opinion that the apple crop of the State for the present year has been generally very much overestimated. We have been noticing the orchards, large and small, in this vicinity lately, and confess ourselves greatly disappointed. The bloom was unusually full, but the apples now on the trees are quite scarce, and are still falling off quite freely. It may be that this scarcity extends only to orchards and trees on the river bottoms, where the soil has been saturated with water all the spring, and we hope this may be the case. If our contemporaries in the fruit growing countries would take notice and publish the result of their observation they might be of service to their interested readers. While the apple and pear trees will bear a good deal of water, we doubt if too much water during the spring will not be found an enemy to good crops.

SANTA BARBARA.

Sand Strawberries.—Guadalupe *Telegraph*, May 27: For some time back parties have been strawberrying among the sand dunes in the vicinity of Cocke's lake, and generally have met with good success. The berries are found buried beneath the sand, are white in color and quite large and sweet. Yesterday Mr. Guthrie presented us with a vine containg 12 of these berries of unusual size and very luscious. The *modus operandi* of gathering them is as follows: Commence at the bottom of the hill, and work your way up, digging the sand away with your hands. When you find the berries, shake the sand from them and put them in the pail till you have enough. When you return home, take the hulls from the fruit at once, put the berries in a sieve, pour water on them and shake them well. You will find that the sand has all been washed away, and the berries delicious.

Coopering the Winds.—Cor. San Luis Obispo *Tribune*, May 27: We believe Mr. Cooper has solved the question of profit in forestry, and we know that he has struck the key to success in ameliorating the climate of those great southern valleys, which have a funnel-shaped mouth opening out to the ocean, into which gather zephyr and gale, to go sweeping upwards to the mountains, the one giving a balmy tone to the air, the other like the career of a maddened courser, speeding on its way, carrying discomfort upon its myriad wings in the shape of banks of fog or clouds of sands. To stop this, plant belts of trees across the valleys in parallel lines every quarter or half mile. This will check the winds, protect the crops, and bring comfort and profit to the residents. If any have doubts of this, go to Ellwood and see for yourselves.

Harvest Commenced.—Editors Press: I have pleasure in informing you that we have commenced threshing this week. To-day they have commenced on the volunteer barley, which they expect to turn out 40 bushels to the acre. Our valley, which is the Santa Maria, is going to have the largest and best crops this side San Francisco. More than half the hay is cut, and it is splendid.—J. H. W., Guadalupe, May 23.

SAN BERNARDINO.

Crafton Retreat.—*Argus*, May 25: A few days ago we had the pleasure of visiting this beautiful home among the hills, and were agreeably surprised with its situation. The proprietor, Mr. M. H. Crafts, is a native of the State of New York, and came to this county about 15 years ago, his whole fortune then consisting of indomitable energy and 14 dollars in cash. On his place can be seen growing almost every variety of fruit known in the temperate or torrid zones. Here the lemon, lime, apricot, pear, peach, nectarine, pomegranate, apple, quince, English walnut, grape, fig, etc., attain great perfection. The locality seems specially adapted to the growth of the apple and orange; of the latter species he has a large number of trees just commencing to bear this season for the first time, and upon examination we found them loaded with fruit. The lime trees are loaded with fruit, and present a wonderful spectacle. Here can be noted the growth of the fruit in all its different stages, from the delicate blossom to the ripened fruit. Every month of the year can be picked the full ripe fruit. We will venture to assert that on this place can be seen the largest fig tree in the United States. The butt measures about two feet six inches in diameter, it rises about 50 feet high, and its branches will measure about 40 feet in diameter, or 120 in circumference, and what is still more wonderful, the tree was grown from a cutting set out only 12 years ago.

SAN JOAQUIN.

Navigation of the San Joaquin.—*Independent*, May 27: About a month or six weeks since Congress passed an act appropriating certain sums for the improvement of the navigation of rivers on the Pacific slope, the removal of harbor obstructions, etc. For the lower San Joaquin, from Stockton down, an appropriation of $20.000 was made, which, while it is totally inadequate to the necessities of the case and the permanent improvement of the navigation of that stream to the extent desirable, is capable, if economically expended, of doing much good. In the "narrows," four or five miles below this city, were the whole of the appropriation judiciously expended in dredging and straightening the bends in the river, the navigation for much larger craft than are now able to reach here would be made possible, and the river be put into a better condition than it ever has been before.

SOLANO.

Items.—Cor. Vallejo *Chronicle:* On the banks of Putah creek, opposite Davisville, we found Mr. G. G. Briggs, the well known fruit man, engaged in shipping cherries. At this place he has some 200 acres of orchard of about eight years' growth. As the trees have borne so little fruit and yielded no profit, Mr. Briggs is seriously contemplating the removal of the trees. At his vineyard further up on the Putah, he calculates that he will put up this year 150 tons of raisins and several tons of figs. Judge Curry, of San Francisco, has 3,600 acres of land, 2 400 of which is in wheat. McCune and Garnett count their acres by thousands. To inspect the crops of S. Green McMahon by simply driving around them would take the best part of a day. The estimable lady of the latter gentleman is a great admirer of fancy and thoroughbred fowls, and her stock is probably one of the largest and most complete in the State. She has two pairs of Cuirassiers, (a kind of turkey), very handsome birds, imported from South America.

SONOMA.

Green Valley.—*Argus*, May 26: This valley, situated about 25 miles west from Petaluma, is one of the most productive regions in the State. On the occasion of a recent drive through the valley, we were pleased to note the many and marked improvements that are being made on every hand. A great many fields are being reclaimed from the forests, and cheerful and pleasant homes are becoming numerous. The valley is justly celebrated for the product of its delicious fruit and berries. The peach crop is looking well at this season and the prospects are that the yield will be large and the quality excellent. Other crops are also looking well advanced and a fine prospect for a heavy yield. This is especially the case with the corn and potato crop. The climate of Green valley is very pleasant and desirable, and altogether we think the inhabitants have their "lines cast in pleasant places."

Cotton and Sugar.—S. B. Potter has growing on his place at the head of Washington street, in Petaluma, 300 cotton plants, which are now about two and a half inches in hight. They are from seed sent to him from Louisiana, and present a very thrifty appearance. Mr. Potter also has a hundred or more sugar-cane plants which are growing vigorously.

TULARE.

Oranges on the Plains.—Tulare Cor. *Delta*, The feasibility of raising oranges on these plains is being successfully tested here. Rev. A. L. Rankin has two trees, which have endured two winters without protection and are in bearing. I counted on one of them over 30 oranges, some as large as Marrowfat peas. The tree is not quite five feet high. It had near 200 blossoms. The other tree was cut back to improve its shape, so that only a few blossoms and fruit appeared; still I saw on it a few oranges. They are four-year-old grafts on five-year-old roots or stocks; actually coming into bearing by that process in six years. They are not of a forced growth, from an abundant supply of water. I am told that two pails of water each week is all that was given them. Mr. Rankin's theory is that too much water is given to fruit trees, thus injuring the flavor of the fruit. He has also a seedling orange of last year's planting, which is doing well though it had no protection last winter.

VENTURA.

A Hen that Meant Business.—Ventura *Signal*, May 27: About a year since a hen laid a number of eggs in a warehouse in this city, and with a yearning for motherhood, she immediately commenced setting, and in due course of time brought out a brood of 14 chickens. As no one came to claim the hen and her progeny, the owners of the warehouse gave the chickens to a notable housewife, who took both the hen and progeny until the chickens were old enough to wean. The hen was then returned to her old haunt, when she immediately commenced making her second deposit. With her usual success she again brought out 13 chickens. This time one of the clerks took the hen and her offspring home. After weaning the chicks the hen was again returned to her old trysting-place. True to her instincts, she laid her third litter of eggs, and again hatched out 13 chickens. This time another clerk has taken her home and is rearing her young. That hen, when not on duty, would regularly take her walk down to the beach, and, like the President at Long Branch, without any fear of impertinent inquiries by a meddlesome House of Representatives, and with the prone consciousness of having set up three worthy households in business.

Sheaves.

By Edgar Fawcett.

All day the reapers on the hill
Have plied their task with sturdy will,
But now the field is void and still;

And, wandering thither, I have found
The bearded spears in sheaves well bound,
And stacked in many a golden mound.

And while cool evening suavely grows,
And o'er the sunset's dying rose
The first great white star throbs and glows,

And from the clear east, red of glare,
The ascendant harvest moon floats fair
Through dreamy deeps of purple air,

And in among the slanted sheaves
A tender light its glamour weaves,
A lovely light that lures, deceives—

Then, swayed by Fancy's dear command,
Amid the past I seem to stand,
In hallowed Bethlehem's harvest-land!

And through the dim field, vague-descried,
A homeward host of shadows glide,
And sickles gleam on every side.

Shadows of man and maid I trace,
With shapes of strength and shapes of grace,
Yet gaze but on a single face—

A candid brow, still smooth with youth;
A tranquil smile; a mien of truth—
The patient, star-eyed gleaner, Ruth!

—*Appleton's Journal.*

The Expression of Rooms.

Rooms have just as much expression as faces. They produce just as strong an impression on us at first sight. The instant we cross the threshold of a room we know certain things about the person who lives in it. The walls and the floor, and the tables and chairs, all speak out at once, and betray some of their owner's secrets. They tell us whether she is neat or unneat, orderly or disorderly, and more than all, whether she is of a cheerful, sunny temperament, and loves beauty in all things, or is dull and heavy, and does not know pretty things from ugly ones. And just as these traits in a person act on us, making us happy and cheerful, or gloomy and sad, so does the room act upon us. We may not know, perhaps, what it is that is raising or depressing our spirits; we may not suspect that we could be influenced by such a thing; but it is true nevertheless.

I have been in many rooms in which it was next to impossible to talk with any animation or pleasure, or to have any sort of good time. They were dark and dismal; they were full of ugly furniture, badly arranged; the walls and the floors were covered with hideous colors; no two things seemed to belong together, or to have any relation to each other; so that the whole effect on the eye was almost as torturing as the effect on the ear would be of hearing a band of musicians playing on bad instruments, and all playing different tunes.

I have also been in many rooms where you could not help having a good time, even if there were nothing especial going on in the way of conversation or amusement, just because the room was so bright and cosy. It did you good simply to sit still there. You almost thought you would like to go sometimes when the owner was away, and you need not talk with anybody but the room itself.

In very many instances the dismal rooms were the rooms on which a great deal of money had been spent, and the cosy rooms belonged to people who were by no means rich. Therefore, since rooms can be made cosy and cheerful with very little money, I think it is right to say that it is every woman's duty to make her rooms cosy and cheerful. I do not forget that I am speaking to girls who are for the most part living in their parents' houses, and who have not therefore the full control of their own rooms. But it is precisely during these years of life that the habits and tastes are formed; and the girl who allows her own room in her father's house to be untidy and unadorned, will inevitably, if she ever has a house of her own, let that be untidy and unadorned too.

It is not a question of money; it is a question of taste; it is a question of choosing between good and beautiful things and bad and ugly things; between things which last for years and do you good every hour of every day, as often as you look at them, and things which are gone in an hour or a few days, and even for the few days or the hour do harm rather than good.

Therefore I think it is right to say that it is the duty of every one to have his or her rooms cheerful and cosy, and as far as possible, beautiful; the duty of every man and woman, the duty of every boy and girl.

The first essential for a cheerful room is sunshine. Without this, money, labor, taste, are all thrown away. A dark room cannot be cheerful; and it is as unwholesome as it is gloomy. Flowers will not blossom in it; neither will people. Nobody knows, or ever will know, how many men and women have been killed by dark rooms.

"Glorify the room! Glorify the room!" Sydney Smith used to say of a morning, when he ordered every blind thrown open, every shade drawn up to the top of the window. Whoever is fortunate enough to have a southeast or southwest corner room, may, if she chooses, live in such floods of sunny light that sickness will have hard work to get hold of her; and as for the blues, they will not dare so much as knock at her door.

Second on my list of essentials for a cheerful room I put color. Many a room that would otherwise be charming is expressionless and tame for want of bright color. Don't be afraid of red. It is the most kindling and inspiring of colors. No room can be perfect without a good deal of it. All the shades of scarlet or of crimson are good. In an autumn leaf, in a curtain, in a chair cover, in a pin cushion, in a vase, in the binding of a book, everywhere you put it, it makes a brilliant point and gives pleasure. The blind say that they always think red must be like the sound of a trumpet; and I think there is a deep truth in their instinct. It is the gladdest, most triumphant color everywhere.

Next to red comes yellow; this must be used very sparingly. No bouquet of flowers is complete without a little touch of yellow; and no room is as gay without yellow as with it. But a bouquet in which yellow predominates is ugly; the colors of all the other flowers are killed by it; and a room which has one grain too much of yellow in it is hopelessly ruined. I have seen the whole expression of one side of a room altered, improved, toned up, by the taking out of two or three bright yellow leaves from a big sheaf of sumacs and ferns. The best and safest color for walls is a delicate cream color. When I say best and safest, I mean the best background for bright colors and for pictures, and the color which is least in danger of disagreeing with anything you may want to put upon it. So also with floors; the safest and best tint is a neutral gray. If you cannot have a bare wooden floor, either of black walnut, or stained to imitate it, then have a plain gray felt carpet. Above all things, avoid bright colors in a carpet. In rugs, to lay down on a plain gray, or on a dark brown floor, the brighter the colors the better. The rugs are only so many distinct pictures thrown up into relief here and there by the under tint of gray or brown. But a pattern, either set or otherwise, of bright colors journeying up and down, back and forth, breadth after breadth, on a floor, is always and forever ugly. If one is so unfortunate as to enter on the possession of a room with such a carpet as this, or with a wall paper of a similar nature, the first thing to be done, if possible, is to get rid of them or cover them up. Better have a ten cent paper of neutral tints and indistinguishable figures on the wall, and have bare floors painted brown or gray.

Third on my list of essentials for making rooms cosy, cheerful, and beautiful, come books and pictures. Here some persons will cry out: "But books and pictures cost a great deal of money." Yes, books do cost money, and so do pictures; but books accumulate rapidly in most houses where books are read at all; and if people really want books, it is astonishing how many they contrive to get together in a few years without pinching themselves very seriously in other directions.

As for pictures costing money, how much or how little they cost depends on what sort of pictures you buy. You can buy for six shillings a good heliotype (which is to all intents and purposes as good as an engraving), of one of Raphael's or Correggio's Madonnas. But you can buy pictures much cheaper than that. A Japanese fan is a picture; some of them are exquisite pictures, and blazing with color too. They cost anywhere from two to six cents. There are also Japanese pictures, printed on coarse paper, some two feet long and one broad, to be bought for 25 cents each; with a dozen of these, a dozen or two of fans, and say four good heliotypes, you can make the walls of a small room so gay that a stranger's first impression on entering it will be that it is adorned for a festival. The fans can be pinned on the walls in endlessly picturesque combinations. One of the most effective is to pin them across the corners of the room, in overlapping rows, like an old fashioned card rack.

And here let me say a word about corners. They are woefully neglected. Even in rooms where very much has been done in way of decoration, you will see all four corners left bare, forcing their ugly sharp right angle on your sight at every turn. They are as ugly as so many elbows! Make the four corners pretty, and the room is pretty, even if very little else be done. Instead of having one stiff, straight shelved book case hanging on the wall, have a carpenter put triangular shelves into the corners. He will make them for 30 cents apiece, and screw them on the walls. Put a dozen books on each of the lower shelves, a bunch of autumn leaves, a pretty vase, a little bust of Clytie, or a photograph on a small easel on the upper ones, and with a line of Japanese fans coming down to meet them from the cornice, the four corners are furnished and adorned. This is merely a suggestion of one out of dozens of ways in which walls can be made pleasant to look at without much cost.

If the room has chintz curtains, these shelves will look well covered with the same chintz, with a plaited ruffle tacked on their front edge. If the room has a predominant color, say a green carpet, or a border on the walls of a claret or crimson, the shelves will look well with a narrow, straight border of billiard cloth or baize (to match the ruling color of the room), pinked on the lower edge, and tacked on. Some people put on borders of gay colors in embroidery. It is generally unsafe to add these to a room, but sometimes they have a good effect.

Fourth on my list of essentials for a cosy, cheerful room, I put order. This is a dangerous thing to say, perhaps; but it is my honest conviction that sunlight, color, books and pictures come before order. Observe, however, that while it comes fourth on the list, it is *only* fourth; it is by no means last! I am not making an exhaustive list. I do not know where I should stop if I undertook that. I am mentioning only a few of the first principles—the essentials. And in regard to this very question of order, I am partly at a loss to know how far it is safe to permit it to lay down its law in a room. I think almost as many rooms are spoiled by being kept in too exact order as by being too disorderly. There is an apparent disorder which is not disorderly; and there is an apparent order which is only a witness to the fact that things are never used. I do not know how better to state the golden mean on this point than to tell the story of an old temple which was once discovered, bearing on three of its sides this inscription: "Be bold." On the fourth side the inscription: "Be not too bold."

I think it would be well written on three sides of a room: "Be orderly." On the fourth side: "But don't be too orderly."

I read once in a child's letter a paragraph somewhat like this:

"I look every day in the glass to see how my countenance is growing. My nurse has told me that every one creates his own countenance; that God gives us our faces, but we can make a good or bad countenance, by thinking good or bad thoughts, keeping in a good or bad temper."

I have often thought of this in regard to rooms. When first we take possession of a room, it has no especial expression, perhaps—at any rate, no expression peculiar to us, but day by day we create its countenance, and at the end of a few years it is sure to be a pretty good reflection of our own.—"*H. H.*," *in St. Nicholas.*

The Phenomena of Death.—At New York, recently, Dr. Frederick R. Marvin gave, in a lecture, a physician's view of death, his subject being "The Physiology of Death." The history of death embraces three periods, the fabulous, the superstitious and the philosophical. The fabulous period was in mythological times, in which death was personified as the goddess Mors, the glance of whose eye was fatal; the superstitous era was that long period in which death was regarded as an instantaneous change; a stroke that came and cut off life from the whole body at once. Ours is the philosophical age. The lecturer had experimented on dogs, to discover the order of time in which the senses die. To one dog he gave arsineous acid; the second dog died instantly upon his introducing a needle into the medulla oblongata; and the third he bled to death. In the last the order of death was, sight, taste, smell, hearing, touch, which established the fact that the senses disappear in the same order as they do in sleep. The human body is an aggregation of cells. Life is the segmentation of these cells; death their disintegration. Each cell dies for itself. Every moment cells are springing into life; every moment cells are dying. Our bodies are composed of these little points. Take them away and there is nothing left of us but the connecting shreds. There are dead cells in your body; and when you are dead there will, for some time, continue to be living ones. We shall all, at some time, be resolved into carbonic acid, water, and the mineral elements. The whole surface of our globe, said the speaker, has been dug over 128 times to bury its dead, even not reckoning the long age of the world which is given to it by modern science, and we inhale, we feed upon elements, the very atoms that have been living human beings before. The dead, he continued, live again, and we greet them in the perfume of the city, in the light flakes of the snow, in the thousand leaves of the forest. Death, the doctor says, is painless. There is no moment in our lives in which the molecular death is not going on in us. The last words of a multitude of persons indicate that mere disintegration is painless. To die of cold, after the first agony is over, is a luxury. So is drowning. The smile of death, the plaoidity of death, comes to all features after the *rigor mortis*. That is over in three days.

How He Got a Cake.—A small boy with a very sharp nose halted before a baker's window the other day and took a long look at the cakes. He finally entered, and leaning over the counter remarked: "If you was a boy, you know, and I was a man, and kept this shop, you know, do you know what I'd do?" The baker confessed his ignorance. "Well, if you was a boy, you know, you'd be hungry, and if you came into my shop, you know, I'd hand you out a cake for nothing, you know, and when you got to be a man you'd buy all you could of me, you know, and you'd git everybody else to trade with me, for you'd remember how I gave you a cake, you know, and you'd want to pay me back." No lawyer could have put the case plainer; and the baker gave the boy a cake, you know.

Droll Christenings.

They tell of Bishop Porteous that he had an utter aversion to long names, and fine names, and more than one name. That being called upon, when a parish priest, to christen a poor man's child Thomas Timothy, he dipped his finger hastily in the basin, cut the matter and the names short, and christened the child "Tom Tit." The fashion is now running, and has been for some years, to fine names, Betsys, Sallys, Sukeys, Nannys, are all gone; and apropos upon Nanny, I have seen the beautiful old ballad, "O Nanny, wilt thou gang wi' me?" adapted to modern elegance, thus: "Amelia, will you go with me?" This, however, has nothing to do with the church christenings, but it shows that a "rose, by any other name," may in time smell sweeter.

Now of names. Surely I have entered on the register the strangest imaginable. A mason's wife, and belonging to the next parish, presented her urchin. What took place was exactly as follows: "Say the name," said I, with my finger in the water. "Acts, sir," said she. "Acts!' said I, "what do you mean?" Thinks I to myself, I will ax the clerk to spell it. He did, A-c-t-a—so Acts was the babe, and will be while in this life, and will be doubly, trebly so registered, if ever it marries or dies.

Afterwards, in the vestry, I asked the good woman what made her choose such a name? Her answer was this: "Why, sir, we be religions people; we've got your name on 'em already, and they be call'd Matthew, Mark, Luke and John, and so my husband thought he'd complimenting the apostles a bit." The idea of complimenting the apostles with this little dab of living mortar was too much; even I could not help laughing. I have no doubt she will go on to Revelations, they being a particularly religious people.

A Restaurant Keeper's Advertisement.

We have not seen many advertisements of late better calculated to make an impression than that below appended, which has appeared in the Portland *Oregonian*. The initial lines are novel enough to arrest attention of all readers; and what hungry and needy man could resist the temptations so cunningly preferred in the paragraphs which follow? The composer would seem to understand human nature in its hungry moods, for he speaks very plainly, ignoring the fastidious verbiage which prudery insists is alone conformable with propriety. Hungry men care naught for ceremony. All they desire is some thing to eat, and to be told how and where to get it in the most direct way possible:

Thompson's 2-Bit House.

No deception there. Hi yu muck-a-muck, and here's your bill of fare. Three kinds of meat for dinner; also for breakfast and supper. Ham and eggs every other day, with plenty of hot tea and coffee for dinner, water if you call for it, with fresh rolls and cakes in abundance. Now's your time to get the wrinkles out of your bellies after the hard winter. Board and lodging per week, $5; board, $4; day, $1.

N. B.—Having started a labor exchange, I request the owners of fisheries, sawmills, bossea in logging camps and farmers in want of hands; old farmers, ranchers and batches in want of wives and housekeepers, to send me word by post or otherwise, and I will try to supply their wants. No pay required.

Sailors will find this temperance house with every chance of employment on shore.

About Ostriches.

"There's a very prevalent popular delusion about ostriches that I'd like to have you straighten out in the *Sun*," said a sub-keeper of the Central park menagerie. "Most people think the ostrich can eat anything. So he can, almost; but goodness! there's as much difference in ostriches' appetites as there is in men's. Now there's a bird there (pointing with his stick), that eats nothing but railroad spikes; eats a keg a month; about three pounds and a half a day; not much to be sure, but spikes is solid food, very staying; not expensive, but yet, at the same time, very filling.

"That ostrich next to him (I'd like to bust him with this club!) is the most particular bird on the premises; won't eat anything but horse-nails; eats about a box and a half a month; I've tried him time and again to get him off on ont nails (good deal cheaper, you know), but it's no use.

"That tall bird walking this way now lives on assorted hardware, brackets and door-knobs and jackknives and padlocks and the like—what they call shelf-goods in the hardware stores. And so they go. Just as whimsical in their appetites as any human.

"Yes, sometimes. That spike bird was quite sick last summer. Got so he couldn't raise his wings; lost his appetite completely, and one spell we thought he'd walk off and never come back. But we doctored him up and gave him light, nutritious food—shingle nail porridge and carpet-tack gruel, and now and then some little delicacy like scrap-iron soup—and he came around all right, and then when his appetite came back we tapered him up on brads and assorted nails, and finally got him on to spikes again, and now he's the ruggedest bird in the park. I suppose that ostrich could eat more spikes in a day than a track-layer could drive.

"Oh, no, don't you let anybody stuff you with the idea that an ostrich can eat anything. He's a hardy bird, but mighty particular about his diet."

How to Make Sunshine.

"Sunshine! why, we have plenty of that every day," says a dear little friend at my side.

Yes, we certsinly have plenty of it outside of us, and it is the most beautiful thing in the world, because it makes everything pleasant that it looks npon. Do the young people who read this paper ever think how beautiful and how nseful the sunlight is? how it wraps the world in its bright mantle, till the earth's old heart grows warm and young again, and the grass and flowers spring forth? how it wanders all over the world, into every nook and corner, with its oheerful smile? how it glances in the trees and plays through the thick branches, till the little birds twitter and warble with delight in their leafy nests?

But it is another kind of sunshine I mean we are to make. Your own heart is the sun, and your home is the little world which you are to fill with happiness.

Do you suppose the sun ever sees anything dark with that great, bright eye of his? why, no; for the moment he looks at anything it grows bright, and nothing can be dark where he is looking. Just so, if you always carry a heart full of sunshine with you, everything will seem beautiful and bright. But if your own heart gets clouded with impatience or discontent you will find the pleasantest place on earth very gloomy and disagreeable.

How different wonld our life be, if we were only determined, in spite of discouragements, to be oheerful and happy ourselves, and to add, by every possible meaus, to the welfare and happiness of those arouud ns!

But can every one be happy who wishes it? Surely, every one desires happiness; then why do so many fail in the attempt to gain it?

Because they do not try in the right way. Our only way to be happy is the one in which God is happy, and that is by *being good* and *doing good*. Those who earnestly try this, never fail of success.

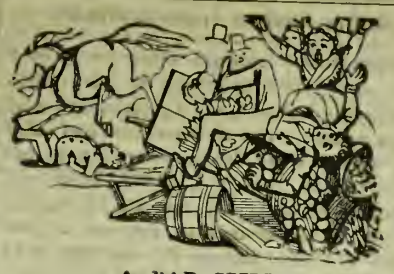
"But can *every one* be good?" says my little friend, thoughtfully, and with downcast eyes.

Yes, dear, every one can be good, by the help of God, who willingly gives the help of His Spirit to all who sincerely ask for it.—*Early Days.*

A Drunkard's Death by Spontaneous Combustion.—An inhabitant of Fontenay-sous-Bois, one of the most charming little suburbs of Paris, has recently departed this life under circumstances which merit the attention of everybody, but more particnlarly of the scientifio and medical world. The man in question had been a confirmed drunkard, and imbibed, on an average, a quart and a half of brandy per diem. Conscious of the degradation of his besetting vice, he kept aloof from his family, and at times shut himself up in his room for days together, in order to pursue his devotion to Bacchus unmolested by the reproach or remonstrance of the infidel. He had frequently been forced to abandon the brandy hottle by the approach of delirium tremens, but he was no sooner cured by the doctors than he returned to his favorite love. At length he was seized with an irresistible desire to destroy himself, which the medical sages call the "nostalgia" of alcohols. On Easter Sunday he shut himself up again; but remaining secluded longer than usual, the neighbors broke open the door. An overpowering smell of spirits struck them on entering the room, where the remains of a oharcoal fire were found, and on looking on the bed there lay the body of the man reduced to cinders! The doctors say that spontaneous combustio a must have taken place shortly after the druukard lay down to die.

A Story of Dr. Nott of Union College.—The theory of Dr. Nott was that of family government as far as practicable, and to attain this he brought the faculty as much as possible in personal contact with the students. He was himself very intimate with the boys, and many stories are told of him by the older graduates, the most famous of which is the following: One night the Doctor's hen-roost was unusually noisy. Concerned about his poultry and his eggs, he hastened out in dressing-gown and slippers, in time to surprise certain disguised figures, which quickly vanished, leaving a few of his choicest fowls beheaded. The Doctor had a magic way of finding out evil doers, and he soon discovered these. But instead of taking off their heads in turn, he invited them to dinner the next day, and feasted them on the fowls with whose necks they had made free the night before. The Dootor made no allusion to the occurrence, trusting to the conviction that every mouthful of contraband chicken would atick in the throat, to teach them a better lesson than he ooald convey in words. When the mesl was finished the boys were politely bowed out, firmly resolved never again to prepare for themselves so uncomfortable a meal. The culprits never heard the last of "Prex's chickeua."—*Scribner for June.*

Farmers' Successes.—An investigation led to the following striking results: Of every 1,000 traders but 7 acquired wealth. From such sad results farmers are comparatively exempt. Of 1,112 baukrnpts who took the benefit of the bankrupt law in Massachusetts, only 14 were farmers; and of 2,550 in New York only 46 were farmers. Less than two per cent. of the bankrnpts belonged to the agricultural popnlation 25 years ago, though that popnlation so largely exceeded that of all other vocations. How is it at this epoch of our conntry's history?



A BAD SPILL.

Young Folks' Column.

Wise Mrs. Swallow.

Mrs. Swallow had just finished her nest, and fastened it snugly ou one side of the chimney, when along came the North Wind in a terrible passion.

He had had a quarrel with some of his relations in Greenland, and had rushed out, like the silly, bad-tempered old fellow he was, to wreak his spite on whatever came in his way.

So, growling and shrieking and whistling aud groaning, he blew off any number of hats, scared hundreds of young blossoms from the cherry trees and left them to die on the road, rocked all the little wooden houses like so many cradles, and then flew from the streets to the chimneys.

Away went a brick here and there, and, alas! at the second great puff, away went Mrs. Swallow's nest too.

She had built it so carefully and wonderfully, carrying up wisps of hay and bits of straw from the tanyard, and lining it with some of Gray Hen's softest breast feathers!

And now where was it? "Ha! ha! ha!" laughted the spiteful old Wind, "wouldn't you like to know?"

Then he spied Mr. Swallow hurrying home with a fine worm he had found, and he hastened to get behind him and drive him along so fast that he came bump up against Mrs. Swallow, nearly knocking her from her perch, and at the same time dropped the worm he had carried so far.

"Whew!" said Mr. Swallow when he got his breath again, "this is a blow."

"It's an ill wind tbat blows nobody good," mnttered the worm, as it crawled quickly away.

"But what's the matter, my dear?" continued Mr. Swallow. "Why do you look so serious? And—bless my heart! where's our nest?"

"That horried old North Wind snatohed it from the chimney, first tumbling me out and rumpling all my feathers," answered Mrs. Swallow, with tears in her round, black eyes. "And now what are we to do?"

"Cheer up, my own wee birdie," chirruped her husband. "I can't bear to see you cry. We'll get just inside the chimney until we are quite sure he's gone, and then we'll call on Madam Owl and ask her advice. They say she has become so wise through studying the stars night after night, and night after night, that she knows everything, and so, of course, she will be able to tell us what to do."

"But, Swally," said Mrs. Swallow, "our family don't like Madam Owl, and have never been friends with her. Only the other day, when she was dozing, I pulled a feather out of her head myself."

"That was very naughty, my dear," said Mr. Swallow, looking as though he thought it rather cunning, "but I don't believe she'll remember it if we are very polite to her and pay her some compliments. And now you'd better take a little nap, for Madam Owl only receives company at night, and I'm sfraid yon can't stay awake when it becomes dark unless you do."

So Mrs. Swallow, like an obedient wife, took a nap, and Mr. Swallow did too, for that matter, although he said, when Mrs. Swallow woke him, "he'd only been thinking."

As soon as eveniug came, away they flew to the old oak tree where Madam Owl lived.

She had just supped off a plump young field-mouse and was very good natured, and listened with the utmost patience nntil they had told their story. Then she said, "Tu-whit-tu-whoo! oh! ah! yes!"

"Wasn't it too bad of the Wind?" asked Mrs. Swallow.

"Tu-whit-tu-whoo! oh! ah! yes!" answered the Owl.

"Can you tell us what to do?" asked Mr. Swallow.

Madam Owl looked at the moon half an hour; looked at the stars half an hour; looked at nothing half an hour; and then said very slowly, "Tu-whit-tu-whoo! oh! ah! n-o-o-o."

"Good night," twittered the angry swallows, and flew quickly back to their chimney again.

"Much good it did us going to Madam Owl," said Mrs. Swallow, with a pout, as soon as they reached home. "I never did believe those stories about her knowing so much. Why, if I said as little and had as big eyes as Madam Owl, no doubt all the birds would call me wise too. And now I'll tell you, my love, what I think we'd better do. Get up with the sun tomorrow morning; make another nest and fasten it on the other side of the chimney."

"Upon my word, my dear," said Mr. Swallow, "you're an ex-traor-di-na-ry bird!" and being very tired, he tucked his head under his wing and went to sleep.—*Margaret Eytinge, St. Nicholas for June.*

Good Health.

Death of Dr. Hall.

Our Good Health column has been frequently enriched by the writings of Dr. W. W. Hall, the editor of *Hall's Journal of Health*. Dr. Hall died suddenly, falling dead in the street two weeks ago. The *Scientific American* writes of him as follows: Dr. Hall was born in Paris, Ky., in 1810. After completing his education he entered the ministry, and while performing missionary labors found a knowledge of medicine so indispensab'e that he begau systematically to study the healing art. Subsequently he devoted himself to that profession, practicing sucoessfully first in Cincinnati and New Orleans, and latterly in this city.

Dr. Hall possessed an extraordinary faculty for popularizing medical knowledge. He was the first to start a popular journal devoted to the inculcation of the laws of health and correct living, in whioh the articles were written in so clear and plain a style as to be comprehensible by any one. The fact that the *Journal of Health*, which was issued first in 1853, soon attracted a circulation of 25,000 copies, shows the favor with which the public regarded his labors. Dr. Hall prided himself on writing his whole paper unaided; and as he was master of a concise, epigrammatic way of expressing ideas, it was rarely that a copy of the journal could be perused without some nseful suggestion being fixed in the mind. Besides his editorial labors, Dr. Hall found time to prepare a nnmber of valuable works on sanitary topics, which have added to his general repntation.

It is a remarkable fact that one so well posted in sanitary laws should have died through the violation of precepts which he persistently urged upon others. It seems that for some years past Dr. Hall has greatly overtasked himself in his literary labors, rising at five in the morning, and working almost continuously until ten at night. The physical results of mental overwork are fully knowu, and perhaps few understood them better than Dr. Hall himself. Yet he fell dead in the street, and subsequent examination has revealed the cause of his death to be degeneration of the heart, one of the commonest resnlts, and according to recent investigations, an almost necessary consequence of an overtaxed brain.

Poisoned Air in Dwellings.

An exchange says: "A scientific man who takes great interest in the subject of drainage, holds that 'two-thirds of the miasmatic troubles in New York proceed from the kitchen sinks of the city houses. The sink-drain gets clogged with grease, and foul odors arise to the upper stories of the houses, and little pale children inhale them all night, until they have scarcely strength enough in the morniug to put on their shoes and stockings.' For want of a better remedy, says the New York *Sun*, a common brick placed over the aperture will nearly obviate the trouble, and it should be the duty of every sensible head of a family to see that it is regularly placed there. A woman says that is a man's idea. The duty of every head of a family is to see that the sink is kept clean and free from grease, and that from the drain no foul odors can be thrown back into the house to poison its atmosphere. This is very easily done by a plentiful use of washing soda to kill the grease and keep the pipes free from it, and the occasional use of chloride of lime to sweeten the drain. The cost is but little, and the enemy is cleared out instead of being bottled up, according to the *Sun's* advice. Keep your sink clean and the pipes free from dirt, then clap on your brick if you want to."

To this we add that there is no necessity that the children, or any one else in the house, should inhale such foul air all night; let them sleep with the windows open more or loss, in proportion to the strength of the wind, and thus give admission to the outside air, shutting off the inside air of the house from their bedrooms if necessary, and the health of the family will not entirely depend on a kitchen sink.

Flues and Ventilation.—At a meeting of the English Society of Engineers, a paper was read on flues and ventilation, by Mr. A. H. C. Trewman. The author poiuted out in the first place, that, in order to keep an apartment in a healthy condition, fresh air must constantly be supplied at the bottom of the room, and the vitiated air as constantly removed. With respect to chimneys, the author observed that their size depended upon the dimenaions of the room to which they belonged. A chimney should always be farthost removed from the doors of communication. After considering the theory of ventilation, and tracing the development of the chimney, from a hole in the roof to the more perfeot arrangements of the present day, the author suggested two means of preventing air deflected from higher buildings from blowing down a chimney. The first was by placing a slab over the mouth of the chimney, and supported a few inches from it, small openings being made in the chimney at the sides and proteoted externally. The second plan was to place two converging plates in the chimney near the top, the smoke passing up between them, and any whioh might be blown back striking on the sloping plates and passing ont through side flues. The author concluded by stating that an ordinary house flue should have an area of 18 inches by 14 inches.

Domestic Economy.

Washing with Hard Water.

"Tilda", in a recent number of the *Farm Journal*, asks what is the best way of washing clothes with hard water. There are various substances and preparations advertised, to soften water, but the very best I know of, and I have tried many, is to "break" with wood ashes, by the old way of scalding sufficient ashes and then turning ashes and water into a barrel which has been filled from the well. It is better to have it done over night before using to wash, that it may thoroughly settle, and then use care in dipping off. If I were obliged to nse hard water, I wonld have a good barrel with a spigot near the bottom for drawing the water off, as the least of the sediment or ashes makes the clothes yellow. The quantity of ashes needed to clesnse a barrel of water can only he determined hy trial, as in different soils and localities the quality of the water varies. In coal burning regions, whero good wood ashes is hard to get, a washing fluid made of nnslacked lime one pound, sal soda two pounds and borax one pound, will be fonud very good. To prepare, boil the lime in one gallon of water, the soda aud borax together in another gallon, turn them together in a vessel and when settled draw off the clear fluid, and fill up with another gallon of water, which when clear, add to the first and cover, or cork in jugs for use, nsing just enough to soften the water. This is an excellent preparation for use, even with soft water, saving the soap and rubbing, and whittening the clothes without injury.

Sweet Yeast.—As many housewives have trouble in this climate in keeping their yeast sweet and good, they will be glad to learn how they can at all times have good reliable yeast that will keep for weeks, and which makes good, light bread. Yeast made after the following recipe will never fail, if the directions are followed: Take a small handful of hops and boil in a quart of water for half an hour, or until the hops become sticky. Strain off the liquor and let it cool somewhat, add then a teaspoonful of sugar and two even teaspoonfuls of flour, and pour into a stone jar of pitcher and cover with a oloth. Let this stand three or four days, when it will be ready for use. When bread is to be made, peel and boil four or five medium sized potatoes, and when done mash them and add to the pulp enough of the water in which the potatoes were boiled to reduce it to a batter; add two teaspoonfuls of flour, one of sugar, and a good half tea cup of the hop mixture, mix and set as ordinary yeast. It will take six or eight hours to raise. Use as ordinary yeast. The hop liquor will make good bread; but it is best to add the potatoes, as they keep the bread from becoming too dry. This recipe is worth ten dollars to any housekeeper.—*Santa Barbara News.*

Croquette of Fish.—Take the *remains* of any cold fish, eight ounces, free it from bones and skin, chop coarsely, put on the fire a stew-pan with an ounce and a half of butter, one ounce of flour, stir until it bubbles, add one gill of boiling cream, stir it smooth, add the fish, a pinch of salt, a very little red pepper; half a teaspoonful of walnut catsup; a tablespoonful of chopped parsley; stir until scalding hot, then add the yolks of two eggs; stir again until the mixture leaves the bottom of the sance-pan; oil a dish well; pour the mixture on it to the depth of half an inch; when cold, cut it into any shape the fancy may suggest; as outlets, corks, pears, etc.; dip them luto dry cracker dust, then into one egg and three tablespoonfuls milk beaten together with a pinch of salt and white pepper, and then into the cracker again; fry in plonty of smoking hot fat, not too brown.

Keeping the Hands Smooth.—A writer in the *American Grocer* says that glycerine is not used in the right way. She asserts that to preserve the smoothness and softness of the hands, keep a small bottle of glycerine near the place where you habitually wash them, and whenever you have finished washing, and before wiping them, put one or two drops of glycerine on the wet palm and rub the hands thoroughly with it as if it were soap, then dry lightly with a towel. Household work and bad weather will not prevent your skin from being smooth and soft, if this plan of using glycerine is followed.

Bread Pudding.—To one loaf of bread well grated pour two quarts of boiled milk or cream; four eggs; a quarter of a pound of white sugar; flavor to the taste (mace is a very good flavor), and bake an hour. If the boiled milk is poured upon pieces of stale bread and left standing two hours they can he mashed and freed from lumps with the hand before putting in the eggs. Dried currants that have been well washed and swelled in lukewarm wster, or raisins, will be a good additiou to this pudding. If made with crackers it will be still more delicate. Cold sauce may be eaten with it, or fruit sauce if no fruit is put into the pudding.

Oat Meal or Sc otch Puffs.—One quart of sweet milk, three well beaten eggs, two and a half cups of oat meal, one and a half cups of Graham flour, and a little salt. Use a medium sized cup. Heat and oil the gem irons and bake in a quick oven.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, June 3, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Melon Sugar; Perpetual Hay Press, 353. Active Eastern Trade in Wheat; The Quality of California Butter; Sale of Jersey Cattle, 360. Disease on Olive and Orange Leaves; Our "Agricultural Notes;" Keeler's Improved Fruit Drier; The Trial of Agricultural Machinery at Stockton, 361. Patents and Inventions, 364.

ILLUSTRATIONS.—Perpetual Baling Press or Trussing Machine, 353. The Newspaper Pavilion, 355. Daniel Clark, Worthy Master Oregon State Grange, 356. Keeler's Improved Drier, 361.

CORRESPONDENCE.—Agricultural Education in Germany; Traveling Correspondence; The Centennial at Philadelphia, 354-55.

HORTICULTURE.—Fig Culture in California, 355.

PATRONS OF HUSBANDRY.—The Debris Evil: Daniel Clark; From the Granges; The Statement of Bro. M. D. Miller; Election of Officers, 356.

AGRICULTURAL NOTES from various counties in California,

HOME CIRCLE.—Sheaves (Poetry); The Expression of Rooms; The Phenomena of Death; How he Got a Cake; Droll Christenings; A Restaurant Keeper's Advertisement; About Ostriches, 358. How to Make Sunshine; A Drunkard's Death by Spontaneous Combustion; A Story of Dr. Nott of Union College; Farmers' Successes, 359.

YOUNG FOLKS' COLUMN.—Wise Mrs. Swallow, 359.

GOOD HEALTH.—Death of Dr. Hall; Poisoned Air in Dwellings; Flues and Ventilation, 359.

DOMESTIC ECONOMY.—Washing with Hard Water; Sweet Yeast; Croquette of Fish; Keeping the Hands smooth; Bread Pudding; Oat Meal or Scotch Puffs, 359.

QUERIES AND REPLIES.—Honey Ants; Non-Bearing Grafts; Dog Distemper, 360.

GENERAL NEWS.—General News Items and Miscellaneous Paragraphs, on 356 and other pages.

MISCELLANEOUS ARTICLES.—Bill to Restrict Chinese Emigration, 355. New York to San Francisco in Three Days and a Half; Sales of Farming Lands, 364.

NEW ADVERTISEMENTS.

Centennial Hay Press, John H. and Andrew J. Gove; Sheep For Sale, A. C. Paulsell, Stockton, Cal.; Immigrant Bureau, J. Earl, S. F.; Excelsior Portable Fruit Drier, Jas. W. Faulkner, S. F.; Sheep, J. A. Wilson, Grayson, Cal.; Attorney at Law, J. L. Murphy, S. F.; Buckeye Force Feed, P. P. Mast & Co., Springfield, Ohio.

OUR CENTENNIAL CAMPAIGN.

THE PACIFIC RURAL PRESS WITH PREMIUMS FOR $4.

Ten Thousand New Subscribers!

We ought to add 10,000 new names to our subscription list this year. There are twice that number of reading farmers on this coast who should yet receive the PACIFIC RURAL PRESS, and who would read it to their pecuniary as well as intellectual profit. We are going to try and enlist a larger army of readers; not by getting out one or two good numbers of our paper and then running it "thin" the rest of the year, but by keeping up superior matter and improving the quality of every issue. That is to say, by furnishing

A Better Paper and Greater Inducements.

Our late rates were established some two years ago, when there was this difference in what we furnished each subscriber then and now:

1. Each subscriber paid his own postage. Now it is prepaid out of our pockets.

2. The reading matter, like that of most other weeklies, was largely set leaded (with open lines). Now it is set mostly solid, furnishing the subscriber at least one-fourth more reading in a column. This costs more for editing, composition, proof reading, etc.

3. Formerly we issued the paper (like other 16-page weeklies printed on this coast) uncut. Now it is stitched and trimmed, ready for use on any page, and in a proper form for preserving it for future reference. This also costs us much extra labor and expense.

Now, making the most of our improved facilities, and 20 years of constant experience in editing and publishing industrial newspapers on this coast, we are determined first to publish an agricultural and home journal

Worth its Full Price;

Besides this we propose to furnish VALUABLE PREMIUMS ADDITIONAL TO EVERY SUBSCRIBER, and therefore will give, from July 1st, 1876, until further notice, the following

New Terms for Subscriptions.

PREMIUM NO. 1.

With the Pacific Rural Press, (two volumes a year, comprising 416 pages each) postpaid, a new lithographic Map of California and Nevada, of handy size, 16x20 inches—showing the official township lines of the surveyed lands of California, and the three fine plate engravings entitled "Love," "Truth" and the "Three Graces." (size 17x30 inches) all postpaid, cash in advance, for... $4.00.

PREMIUM NO. 2.

With the Pacific Rural Press one year, the above named Map, and a really Choice Chromo [description of which we will publish as early as the first of July,] all postpaid, for.....$4.00.

PREMIUM NO. 3.

With the Pacific Rural Press one year, the Map, and "The California Patron" (a monthly official journal, P. of H.,) and the choice of two of the fine plate engravings—"Love," "Truth" and "The Three Graces,"—all postpaid for...$4.00.

PREMIUM NO. 4.

With the Pacific Rural Press one year, Dewey's Patent Elastic File Holder and the Map of California and Nevada, all postpaid, for.....$4.00.

PREMIUM NO. 5.

With the Pacific Rural Press for two years, the Map of California and Nevada, to any single address in the U. S., all in advance....$6.00.

PREMIUM NO. 6.

With the Pacific Rural Press for six months, the Map of California and Nevada, postpaid.....$2.25.

PREMIUM NO. 7.

We will allow one dollar on the first order, amounting to five dollars or upwards, for other publications than our own (including books, papers and magazines not sold exclusively by agents) which may be forwarded to us with the coin by any yearly subscriber of the Pacific Rural Press.

PREMIUM NO. 8.

We will credit every present subscriber of the Pacific Rural Press with three months, additional subscription for the name of each new subscriber they send us with $4 during the next six months. The new subscriber to be fully entitled to premiums.

These terms are payable strictly in advance.

Advance subscriptions, in actual clubs of five or more (without premiums), will be received at former rates until further notice.

Persons claiming premiums must order positively the number of the premium they desire. Otherwise, premium No. 1 will be sent.

Subscribers can have their premiums sent to any person they choose in the United States.

One dollar a year must be added for postage on papers sent to foreign countries.

All premiums will be delivered either immediately or within 30 days from our receipt of the order.

Present subscribers can avail themselves of either of the above premiums simply by advancing their subscription one year or more beyond the date of their application for a premium.

No premium will be allowed on any subscription not paid fully one year in advance.

For one dollar extra, received from any subscriber, we will forward to his order the premiums enumerated in either of the above.

These terms are liable to be changed, according to circumstances, at any time.

IMPORTANT SALE OF SHORT HORN STOCK AT CHICAGO.—The Durham Lawn herd of Short Horns, owned by Colonel Robert Holloway, of Alexis, Illinois, was sold at auction in Chicago, May 25th. Buyers were present from all parts of the United States and Canada. The bidding was spirited. Sixty-five head were sold, and a total of over $70,000 realized. Among the important sales were the imported Oxford Beau the Second, $3,800; S. W. Jacobs' West Liberty, a Geneva Duchess of Goodness, with bull calf, $2,500; London Duchess the Fifteenth, $3,925; Eleventh Belle Duchess of Plumwood, $3,050; Fourth Tuberose of Battleboro, $3,025; Rose of Sharon of Durham Lawn, $4,250; imported Waterloo, $2,750; Countess of Cornwall, $1,825; roan Duchess Frost of Durham Lawn, $1,300; roan Duchess of Auvergne, $1,700; roan Duchess the Seventh of Bow Park, $3,250; roan Duchess the Tenth of Auvergne, $f,700; Bright Eyes the Eighth, $1,500; Imperial Golden Drop the Second, $1,800. The sale of bulls was also important: Imperial Oxford Beau the Second, at $3,800; Duke of Thobano, $1,060; Grand Airdrie, $1,425. The average price for cows was $1,136; for bulls, $814.

Active Eastern Trade in Wheat.

The mails and telegraph brings tidings of a most active export movement of wheat from the Eastern seaboard, and a great reduction of stocks in store. The Chicago *Journal* of May 16th says that the Chicago elevators, as per official returns, contain 1,587,362 bushels of wheat, 695,977 bushels of corn, 318,739 bushels of oats, 63,968 bushels of rye, and 121,859 bushels of barley, making a grand total of 5,788,405 bushels, against 4,033,980 bushels one week ago, and 8,648,279 bushels at this period last year. This is a notable point in favor of this year's outlook.

The active trade in New York city has accomplished quite as favorable results. An exchange under date of May 24th says:

"During the past week a very large business in grain has been done on the Produce Exchange. The sales of corn and wheat since last Saturday amount to over 2,000,000 bushels, in addition to which there have been over 100,000 barrels of flour and 400,000 bushels of oats sold, besides nearly 100,000 bushels of rye. This shows business with a vengeance.

"The secret of it all is that exporters, favored by a rise in gold and a good supply of tonnage, have come to the conclusion that it would not be worth while to hold off any longer in order to break down prices as they have been endeavoring to do for several weeks past. The visible supply has in the mean time been gradually reduced by fair sales to millers, and exporters seeing how matters were going, and that holders were determined not to "cave," finally went in and bought a very large quantity."

The visible supply of grain at all ports of accumulation and on the New York canals at the latest date, with a comparison with last year, amounts to about 2,000,000 bushels less than the supply one week previous, and the same amount less than the visible supply at the same date one year ago. This is certainly an important reduction.

This sharp export movement has continued since the date of the latest mails, for a dispatch dated New York, May 28th, is as follows: "The announcement was made yesterday on the Produce Exchange that 26 vessels had been chartered to take cargoes of grain to Europe, in view of the approaching war. An advance in freights is looked for in consequence." This war cloud is becoming of considerable stability. The English are fitting for showing full strength in the Mediterranean, and the British Lloyds are putting marine insurance at war rates. There is quite a prospect that our wheat value will be much improved by the Eastern troubles.

The Quality of California Butter.

There is reason to believe that an association of intelligent dairymen to spread abroad information of the best dairy practice will result in great improvement of our aggregate dairy product. This is a truth which our friends of the city daily press are maintaining with great vigor. They are, however, doing the dairy interest of our State injustice by exaggerating the need which exists for improvement here as compared with the dairy regions of the East. Now, so far as our observation, both in the dairy districts of the East and on this coast, goes, there is no truth in the claim that "California butter is on an average the poorest in the world." In fact, we believe that the facts in the case are very different. There is too much poor butter made here, and dairymen sacrifice their profits too often by careless dairy practice; but these unfortunate conditions prevail in the old dairy regions of the country to a greater extent than here. There are many tons of butter received every week in New York city which have to be sold for grease; there is another grade even in greater quantity which is sold for a nominal price for refining and use in bakers' supplies. There is cheese received in New York which cannot be sold for more than three to five cents a pound. So constantly do New York merchants receive this quality of goods that quotations are graded from "fancy" to "grease" in all prices current. This matter is of course a theme for continual regret and for continual exhortation in all dairy meetings, and in all dairy newspapers of the East, and these agencies for good are working constant improvement, but evil practices are hard to eradicate.

Taking California dairymen as a class we believe their average both in intelligence in the men and quality in their product will rank higher than their class at the east. We base this belief upon observation in the regions we have visited in this State and upon the general principle that the poorest dairymen at the East never get money enough to move. We presume the same rule will apply to some extent to those dairymen who have come to us from foreign countries. We do not like to make odious comparisons, but as it has been done, thoughtlessly we doubt not, by our contemporaries, we are anxious that the bright side of the picture should be turned where it belongs. We know, as well as any one, the best dairying at the East, and it is glorious; we know also the worst, and it is abominable. One who makes a comparison should take a wide view and embrace all the facts. It will not do to compare our whole dairy product with that of any one pre-eminent district at the East, but taking State with State and we believe the result will be as we have said. Nor does our advantage lie wholly in the men. We have advantage in our air and in our cool nights which does much to make poor handling of milk less harmful here than in the more sultry summers at the East. We have seen fair, clean-flavored cheese made in this state under conditions and surroundings which at the East would have spoiled the cheese before it cured.

But though we have advantages in dairy production in this State, they should not lead to any relaxation of effort for improvement. Rather should all advantages be used as stepping stones to the attainment of a general excellence which would make us unrivaled by even the best elsewhere. This can be done by constant and united effort among those engaged in the dairy industry for a better understanding of the conditions under which they work, the materials they use and the agencies which they employ to transform the feed of the pastures into the golden lading of the table. Here is the field for work and in it we expect our dairymen's association to show its value.

QUERIES AND REPLIES.

Honey Ants.

EDITORS PRESS:—In excavating a bank I found a nest of ants about 18 inches under the ground. They were ordinary sized ants, similar to the common red ant. I did not discover any peculiar difference in their appearance from any other ants. My attention was first called to a number of ants collected around what I took to be a lump of dirt, but on examination I found it to be a cell filled with honey, and nicely capped over. The honey was as clear as water, and a little thinner than bee's honey. On searching I found a number of these cells deposited in the dirt near the nest. I then examined the ants to see if they contained any honey, and found a honey bag just the same as a bee, and found all the ants were the same in the nest. I was afraid to eat the honey. I showed some of the honey to the Indians that lived here, and they said it was good. They always eat all they can find, and they find it frequently. They also eat the ants and say they are very sweet. I admire the aborigines' taste, but I would prefer eating a half ton of clover hay to get a little honey. These little honey gatherers have no way of defense that I could see, and are apparently perfectly harmless. I don't see why San Diego county cannot be called a honey producing county with both bees and ants. As soon as my ants swarm I will let you know. L. H. GASKILL, Campo, San Diego county.

The honey ants have long been known and described by naturalists both in this country and Europe. They are the *Myrmecocystus mellegrans*. The *American Naturalist* says they have workers and non-workers, and that the workers are killed for their honey by the non-workers. The honey itself is sweet to the taste, with a slight acidiferons (perhaps formic) pungency, which, is however, more perceptible to the smell than to the taste, and probably, diluted and in quantity, would make a medicinal, if not a refreshing summer drink.

Non-Bearing Grafts.

EDITORS PRESS:—I have some apple trees planted four years ago which look very thrifty and grow well but do not bear as yet, while others planted last year and two years ago commence to bear already. I think the older trees have been grafted with scions from young trees that had not been in bearing. What is your opinion about it?—D. RAAB, Los Angeles.

We are of the opinion that our querists' surmise is not correct, else the greater part of our nursery grafted trees would never bear. It is quite a custom among nurserymen to take scions from the young grafted stock standing in the nursery rows, claiming that in this way healthier scions can be obtained than from older trees. We think there must have been something else the matter than the youth of the scions. Who will tell?

Dog Distemper.

EDITORS PRESS:—A disease which people call the distemper afflicts the Shepherd dogs in this country; the symptoms are loss of appetite, waste of body and an asthmatic affection after exertion. Can you oblige me with a remedy?—JOHN ROBERTS, Imusdale, Monterey county.

Will some dog fancier send us the desired information?

Sale of Jersey Cattle.

We were present on Thursday of last week at the auction sale of Jersey cattle by A. Mailliard, Esq., President of the California State dairy association, at his splendid ranch in Marin county. Mr. Mailliard has been for several years in-breeding thoroughbred Jersey cattle from imported stock, and is well known throughout the State by his efforts in this direction of stock improvement. His auction sale was for the purpose of disposing of his surplus and to give all who desired a fair chance at the animals. The stock is of the most valuable and beautiful of Jersey styles and is not surpassed by any which we have seen in this country. The attendance at the sale was not as large as might have been expected, and the prices ruled low when compared with what the pure blood Jerseys are bringing in the Eastern States. But Mr. Mailliard may justly claim the credit of making a start in the system of annual sales and we trust as the peculiar points of value in the Jerseys come to be understood, he will be recompensed for the area of low barometer which prevailed at his first sale. We have not received an accurate statement of the receipts from the sale, but from some notes hurriedly taken we conclude that the average price gained for cows was about $150 00, and for bulls $70.00. The highest prices received for a cow with calf by her side was $240. The auctioneers were Orego & Bowley, of S. F.

Disease on Olive and Orange Leaves.

There is evidently much study yet to be done before the evils which threaten our semi-tropical fruits will be understood. Last week we gave a showing which seemed to indicate that the insect discovered in the roots at Los Angeles was not the prime cause of their decay, but was probably merely attendant upon it. This week we present scientific testimony claiming that the fungus which attacked the leaves and branches of the olive and orange last year was not the real cause of the disease, but merely grows upon the wreck caused by some foregoing insect. We trust that a multitude of counsels will develop truth.

We receive by the bulletin of the Bussey Institution of Harvard University a report by Prof. W. G. Farlow, upon some leaves and stems of olive and orange trees which were sent to him from this State. He enters into the consideration of the fungus with great minuteness, and in terms intelligible only to the mycological student, the object being only to define the characteristics of the fungus and establish its identity with a fungus already described by standard authorities. This point we will consider established and make extracts which will furnish popular information on the subject:

The leaves of the olives which are affected by the disease are somewhat curled and shriveled, and are of a browner color than normal leaves which have been gathered but a few weeks. On both surfaces of specimens sent us are black spots of greater or less extent, but in no case is the leaf perfectly black. On the upper surface the black spots are more numerous, more distinct in outline, and harder in substance, than on the lower, where they were more diffuse and of a powdery consistency. The twigs, of which we received only small specimens, are covered with spots which resemble more closely those on the upper than on the lower surface of the leaves. In one specimen the spots are nearly confluent, and the bark is visible in only few a places. After the leaves or stems have been soaked in water for a short time, the black substance can be scraped off without the least trouble, leaving the bark tolerably clean. The black substance, when seen with a magnifying power of 400 diameters, is found to be composed of the stellate hairs peculiar to the olive, over which is growing a fungus, to the dark color of whose mycelium the spots owe their color.

The orange leaves sent us are also covered with a black substance, which is not so much in spots as in powdery sheets upon both surfaces of the leaves, more particularly the upper. The attachment to the leaf is by no means as strong as in the olive; and the deposit can easily be scraped off, even without previous moistening. In fact, in some places it falls off on the slightest touch. No specimens of diseased orange stems were received for examination. A microscopic examination shows why the deposit was more easily removed from the orange than the olive leaves. The smooth surface of the former gives no permanent attachment to the fungus, which does not penetrate into the interior of the cells of the mother plant; while, on the other hand, the hyphæ wind themselves tightly around the stalks of the stellate hairs of the olive, from which they cannot be removed. If the fungus should attack both oranges and olives, it is very evident why the latter would suffer much more than the former. Apart from the absence of hairs, which invariably constitute a large proportion of the scrapings of the olive trees, that from the orange leaves is precisely identical; and we can in the most decided matter affirm that the fungus is the same on both plants. * * * * * * * * *

If we seem to the reader to have gone too minutely into the consideration of the systematic position of the fungus, it was for the purpose of bringing out more forcibly the fact that it is nothing new, or peculiar to California; and that it is not even limited to orange, lemon and olive trees, but, as we have seen, is found on a number of other trees. How does it happen, then, that a fungus so widely diffused should suddenly increase to such an extent as to injure two important crops? We remarked, in passing, that the hyphæ seemed to be, as it were, gummed to the stellate hairs, and, in some cases, to one another, by a sticky substance. We do not forget that, when any mycelium is growing on a leaf, a certain amount of dirt – including, of course, some oily matter —is sure to be entangled in its meshes. In the case of the present fungus, however, there is something more than an accidental accretion of such substances. The surface of the leaves and stems is in many places covered with a gummy deposit, presumably of insect, certainly not of fungus origin. On this gum the fungus grows luxuriantly; and, though it may be found on those parts of the leaves where no gum can be seen, yet it is evident that it has reached such places by growing from the gummy spots. Of the origin of the gum, other than it does not come from the fungus, we have no theory of our own to advance. Remains of insects are abundant on the leaves; but, being entirely ignorant of entomology, we cannot say what their relation is to the diseased trees. It may be that they are stray visitors caught in the gum. The fungus grows most luxuriantly on the remains of insects which I have seen, which, in some cases, present a ludicrous spectacle, the hyphæ projecting from them like the quills of a hedgehog.

The result of our examination of the diseased orange and olive leaves is briefly as follows: The disease, though first attracting the eye by the presence of a black fungus, is not caused by it, but rather by the attack of some insect, which itself deposits some gummy substance on the leaves and bark, or so wounds the tree as to cause some sticky exudation, on which the fungus especially thrives. It is not denied that the growth of the fungus greatly aggravates the trouble already existing, by so encasing the leaves as to prevent the action of the sunlight; we only say, that, in seeking a remedy, we are to look further back than the fungus itself—to the insect, or whatever it may be, which has made the luxuriant growth of the fungus possible. With regard to the fungus, we are able to assert that it is the same on both olives and oranges—the species described by Berkeley and Desmazieres under the name of *Capnodium Citri*, which seems to us, together with the pycnidial state described by Montagne under the name of *Antennaria elæophila*, to be but two states of a species identical with that described by Tulasne as *Fumago salicina*. It remains yet to find the asci on olives or oranges, which will probably be accomplished without difficulty in California. The earliest stages of the fungus should be studied by some one living near orange groves; for, although the disease has been known to attack greenhouse plants, it is not very common, or, in that case, so favorable for study. Especially is it to be desired that careful notes of the extent and manner of appearance of the disease, and the climatic and hygrometric conditions attending it, should be carefully recorded.

As a remedy, alkaline soaps, as strong as the trees will bear, will no doubt prove advantageous in case of the oranges; but, in the case of the olives, much less good is to be expected, owing to the presence of the stellate hairs on leaves and twigs. With this, our notice of the disease from a botanical standpoint ends; and we commend the subject to the attention of entomologists.

Our "Agricultural Notes."

We wonder whether the department of the RURAL PRESS which we call "Agricultural Notes," is as pleasant and profitable to him who reads as to him who prepares it. There is no page of the paper of which the editor enjoys the work of preparation more. The search for information to fill the columns leads him on a pleasant journey to all the counties in the State and to the adjacent States and Territories. He sees the agricultural work which is in progress in each. He rejoices as his scissors alight upon a note of progress or enterprise, or upon the plain teachings of some practical man's observation and experience. Of course he is enabled to take this comprehensive weekly review of the agriculture of all the counties because the local papers work so diligently and intelligently, each in his own field, to gather fresh notes of agricultural doings. We can say from long acquaintance with newspapers that no State in the Union has a local press so wide awake and so generally intelligent on agricultural subjects as California. In most of the Eastern States all the notice the farmers get usually is mention of large eggs and two-headed calves. In this State the local paper continually is on the lookout for facts of actual work and news of valuable endeavor. In this behavior the editors of these papers are doing the agriculture of the State good service and are worthy of every encouragement.

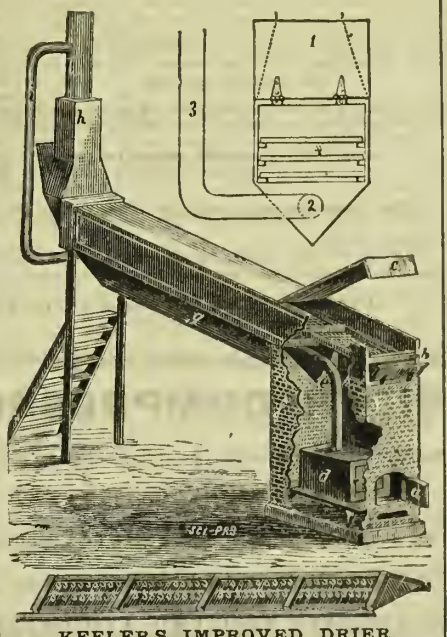
We regard our department of "Agricultural Notes" as one of the most interesting and important in our paper. In this State, where everything is so new and the agricultural resources of the different regions but partly understood, it is of inestimable value to the working farmer to know what his brother tillers of the soil are able to do and how they do it. In our "Agricultural Notes" we endeavor to present very many useful hints of this character. We print nothing out of mere personal concern, but rather select those items which present fresh information concerning the agricultural fitness of the different counties, or describe methods by which better and more successful work can be done. Our readers will find many matters of fact and work which can be applied to their own operations. More than this, they can see how widely and rapidly our State is advancing towards its grand agricultural future. Every week we have notes of progress and improvement. Let them continue and increase as rapidly in the future as they have in the last few years, and our agricultural development will be a joy to contemplate beyond any joy which can now be experienced, though present joy is great.

YIELD OF ORANGE SEEDS.—Can any of our orange growing readers affirm or deny the following: F. B. Hudson writes to *Our Home Journal:* "I have recently made a discovery that an orange seed will produce more than one tree. I have found as many as five from one seed, all distinct, with no connection except in the seed. I separated and transplanted 20 from six seed. I have shown to a good many of my neighbors, none of whom knew of it before."

Keeler's Improved American Fruit Drier.

We present on this page an illustration of another drying apparatus, to which we invite the attention of fruit growers. The American drier, when first introduced on this coast, though it had been some time in use in the East, and Dr. Ryder, the inventor, had received the highest testimonials for its practical efficiency, especially for the superior and unequalled quality of its work, and the unqualified opinion of such men as Orange Judd, of the *American Agriculturist*, that it combined the true principles for producing a really fine and merchantable quality of dried or desiccated fruits and vegetables, still it did not come up to the standard of capacity and efficiency demanded by the general fruit growers of the Pacific coast. Therefore the agent, J. M. Keeler, gave his immediate and earnest attention to so improve the dryer that it would more fully and practically illustrate the intrinsic value of the principles involved, and he believes now that those who purchased the first driers would hardly realize the increase in capacity and practical utility now claimed for Keeler's improved American drier, with solar heating attachment.

The following is the description of the engraving: *a*, door to furnace; *b*, door for entering trays; c, fall door covering top of furnace and end; *d*, stove entirely inside furnace; *e*, pipe from stove entering improved hot air chamber; *f*, furnace made of narrow tongue and grooved flooring and lined with sheet zinc—can be made stationary of brick; *g*, improved additional V shaped hot air chamber through which pipe lays, utilizing the heat of the smoke, and is lined with zinc; *h*, wooden flue opening below into hot air chamber to carry off the moisture, aided by draft of the smoke; *i*, showing pipe coming out upper end of drier as shown at Fig. 2, and entering pipe flue at *l*. Fig. 1 shows fall door closing upper end of drier, and dotted lines show form of fine, as at *h*. Fig. 3, pipe as at *i*. Fig. 4 shows trays at upper end. Door (Fig. 1) open.



KEELER'S IMPROVED DRIER.

Of the improved drier, special new features are the V shaped bottom, having the pipe from the stove in the furnace box lying up through it, thereby utilizing the heat of the smoke, and also entering a flue at the upper end, connected with the dryer chamber, and by the draft of the smoke greatly assisting in moving off the moisture arising from the fruit, increasing the drying process.

The V Inverted Solar Attachment

Shown at the bottom of engraving, which forms the raisin chamber, covering the drier instead of the flat board cover, increases the hot air capacity, being a gable roof with sash sides underneath, which are four rows of hooks to hang bunches of grapes, from 100 to 500 pounds, according to size of drier; also a row of trays at the base of the attachment, and then comes an imperforate partition, so that no moisture can come in contact with the raisins from the trays below. By this arrangement the raisins have the heat of the sun from above, and the hot air coming up from below gives, in the words of the inventor, "every assurance that this will prove the king raisin dryer of the Pacific coast." And on the whole, for all kinds of fruits and vegetables it is claimed no drier can approach it in the quality of the product. Crystallized fruit confection has been made on this drier, not excelled by any imported. By this mode of curing fruit as a confection, three or four times the price of common machine dried fruit is realized, at but little if any more cost. The rules for a very simple process of making this style of dried fruit is imparted with the drier. This drier is on exhibition and for sale at No. 330 Sansome street, corner of Sacramento, and circulars and price lists can be had on application.

ON FILE.—"Botanical Excursions," J. G. L.; "The American Merino in Western N. Y." F. S. C.; "Notes from the Sacramento River Districts," B. W. C.; "Blindness in Cattle," N.; "Caterpillars, etc.," S. J. W.; "Borers," O. G.

The Trial of Agricultural Machinery at Stockton.

[Written for the PRESS by J. W. RILEY.]

On my arrival in Stockton on Saturday, May 13th, I went to Washington square, where I found assembled a large number of farmers, to witness a trial of straw burning engines and other agricultural machinery. Among the numbers present were Mr. Ames, of the Ames engine manufacturing company, Oswego, N. Y.; Mr. Hamilton, of the firm of Baker & Hamilton, San Francisco; Mr. Rice, of Haywards, manufacturer of straw burning engines; Mr. Clark, of San Jose, agent for Mr. J. Enright, of San Jose, manufacturer of straw burning engines; Mr. B. Jackson, of Woodland, patentee of the Jackson self-feeder for threshing machines. The following named Stocktonians were on hand to exhibit and explain their respective implements: E. J. Marsters, self-feeder; Thomas Powell, electric elevator; Mr. King, straw burning attachment; Matteson & Williamson, derrick forks; H. C. Shaw plow company. The above named manufacturers, agents and patentees took a lively interest in showing off the good points and advantages of their respective wares.

King's attachment claims superiority and preference over all others on account of its adaptability to all styles and patterns of wood or coal burning engines, to which it can be fitted for about one fourth the cost of changing to the Cornish style of boiler. The straw is fed through a tube to the fire box. The grate bars are three or four inches apart. In front of the tubes a concave plate is arranged, similar to the brick arch used in locomotive boilers. This plate, to a great extent, prevents the choking up of the tubes, and ensures a more perfect combustion of the straw. With this attachment on a Gaar, Scott & Co.'s engine, the steam gauge indicated 100 lbs. pressure to the square inch, 50 minutes after starting the fire, with two gangs cold water. For a more detailed account of the performance of this engine, the reader will refer to your advertising columns. This engine ran a burr mill grinding barley. Fire box boilers for burning straw are manufactured extensively in England for shipment to Hungary and other grain growing countries where straw is of little or no value.

The Rice engine was running a gold medal separator with E. J. Marsters' self-feeder attached. Several loads of barley were threshed, which had been hauled into town for the purpose of showing the working of this engine, self-feeder and separator.

The Enright straw burner, represented by Mr. Clark, was not on the ground, but a large engraving (framed) for convenience of showing the engine served to give any one a correct idea of the engine, in connection with Mr. C.'s explanation showing its improvements on the first ones made. The engine is a bed plate boiler, felted and covered with galvanized iron and bands. After this exhibition I noticed three of the Enright engines on one freight train. The demand for these engines will probably exceed the supply this season.

Byron Jackson, of Woodland, proprietor of machine shop and planing mill, was on hand to show his self-feeder and elevator for threshing machines. For four years Mr. Jackson has made and sold 200 of these labor saving attachments; six of them are on the Glenn ranch, Colusa county. One of these feeders is attached to the 48-inch threshing machine "Monitor," illustrated on first page of the RURAL PRESS some weeks back. Mr. Jackson now has over 60 orders for his feeders. He employs 26 men, and manufactures horse forks and derricks and Wm. Jackson's grain lifters, and runs a steam threshing machine. He has fitted to his portable engine a traction gear. This engine will move itself and separator and derrick wagon. This all our engines ought to do and eventually will do, though at the present time I believe there is only one other engine in the State that will do this. The next improvement is to apply King's attachment for burning straw to this engine, which will be done before threshing commences. A straw burning traction engine with windlass to hoist forks by steam, will save six horses and one man, and one cord of wood per day, and the Jackson feeder saves one man at $4 per day.

E. J. Marsters, of Stockton, manufactures a self-regulating feeder for threshing machines. This feeder is new. It gave good satisfaction last year. The manufacturer claims to have the best feeder. They are very simple and light weight, about 175 pounds. They do not require detachment from the separator when moving, and save the labor of two men. By removing the feed board, it is secured in position without cutting away or altering the separator. It requires but little power to run it and has no complicated parts to get out of order.

Thomas Powell's electric elevator attracted much attention. This elevator is used in the harvest field to elevate grain, hay and straw from the wagon bed to the stack. The load is taken up in a center-opening net and raised by horse power with a suitable derrick. The stack can be built of great hight and the tramping out of grain is avoided. The header is not delayed for want of a wagon, as a four-horse load is transferred to the stack in a few seconds. By referring to your advertising columns, the reader will get a fair idea of the elevator.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or lese inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cowe and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petalnma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Live Stock Notices.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞ NEW MILCH DURHAM COWS FOR SALE.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, some fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

THOROUGHBRED SPANISH MERINOS.

Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS,
Santa Clara, Cal.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS CO., 609 Sacramento St., S. F. Send for Circular.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Egg and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,
1y8-3m 43 & 44 Cal. Market S.F

STRAW BURNING ATTACHMENT.

KING'S PATENT.

The Only Successful Burner Yet Introduced.

Having secured the exclusive right to manufacture and attach to engines J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of the threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

MODESTO, October 9th, 1875.

MR. J. R. KING—*Dear Sir:*—We have used your Attachment on our Automatic Hoadley Engine the past two seasons; it furnishes all the power necessary to run our large Pitts Separator with a Jackson Feeder attached; it more than gave satisfaction to all the farmers for whom we threshed; it required but little straw to furnish the necessary amount of steam; our engineer had a boy to fire it, and he attended to the Separator and Engine; it was much safer than a wood burner, for when we wished to stop or move, all that was necessary was to close the door and everything was perfectly safe. We used no spark arrest, as there were no sparks to arrest. It was a perfect success in every particular. Yours, etc., BENTLY & YOUNG.

LINDEN, October 16th, 1875.

MR. J. R. KING—*Dear Sir:*—Having used one of your Straw Burner Attachments on my Ames Engine (wood burner) No. 3, I feel it my duty to state that it proved to be far more than I expected. It furnishes sufficient power to operate my large Pitts Separator. I have seen several regular Straw Burning Engines in operation, and would not exchange for any small consideration. I used it all the season without the least difficulty and know it is a success. Yours, etc., J. H. DUNCAN.

The following parties used my Attachment on their Wood Burning Engines last season: Covert & May, Grayson, Stanislaus county; W. H. Gilmore, Stockton, on an old style Hoadley Engine, 8x12 cylinder; Morse Bros., Modesto, Stanislaus county; C. F. Leavensworth, Modesto, Stanislaus county, old style Hoadley, 8x12 cylinder. On the 13th of May, at Stockton, in a test of Straw Burning Engines, a very lively competition ensued between the different styles and patterns of machinery, particularly between the two Straw Burning Engines. My Attachment claims superiority and preference over all others on account of its adaptability to all styles and patterns of wood or coal burning engines, to which it can be fitted. It has a conical feed tube or funnel, through which the straw is fed to the fire box, the interior arrangement of which is also peculiar, containing a half set of coarse grate bars standing six to ten inches high, and adjustable to any hight desired and sloping toward the front. In front of the tubes a circular concave plate is so arranged as to cause the draft to first strike the top of the boiler and then draw down behind the plate through the small flues. Engines rigged with this burner are absolutely safe from sparks, there being no necessity even for a spark arrester on the smoke stack. To show how rapidly it makes steam we add the following record of its performance on Saturday, attached to a Gaar, Scott & Co.'s portable engine: The fire was lighted with the boiler partially full of cold water, (two gauges cold,) and in 25 minutes the whistle was blown, the gauge showing a pressure of 10 pounds of steam; in 30 minutes, 20 pounds; in 32 minutes, 30 pounds; in 34 minutes, 40 pounds; in 35 minutes, 45 pounds; in 37 minutes, 50 pounds; in 38 minutes, 55 pounds; in 40 minutes, 60 pounds; in 42 minutes, 65 pounds; in 45 minutes, 70 pounds; in 47 minutes, 80 pounds; in 49 minutes, 90 pounds; in 56 minutes, 100 pounds. On reaching a pressure of 100 pounds the barley mill, to which it was attached by a belt, was started and run to its full capacity, grinding at the rate of two tons per hour; during this time steam raised to 130 pounds, pumping more than a full supply and frequently blowing water out of the boiler; then stopped firing until the steam gauge indicated 80 pounds; commenced firing again and got 140 pounds in 25 minutes; water raised in boiler to three gauges; mill run to full capacity all the time; this was a Gaar, Scott Engine, cylinder 7x13 inches; boiler, diameter, 29 inches; 27 flues, 2½ inches diameter, and 54 inches long; fire box, length, two feet eight inches.

The Attachment can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced county. Byron Jackson, Woodland, Patentee of Self Feeder, agent for Solsno, Yolo and Colusa counties.

All orders addressed to J. R. King, Patentee, in care of the Globe Iron Works, or H. C. Shaw Plow Company, Stockton, will receive prompt attention. Send for Circulars.

JOHN CAINE, Proprietor Globe Iron Works,
STOCKTON, CAL.

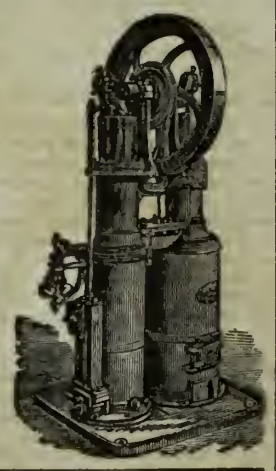
RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

Not a Valve, Spring, Cam, Lever or Eccentric about them.

ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.



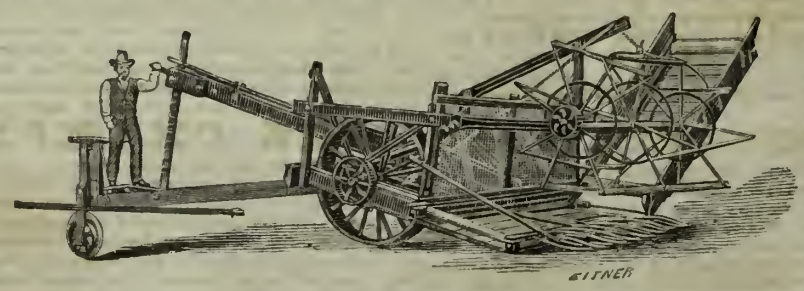
Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

Send for Circular and Price List, or call and see one in operation.

HUNTINGTON, HOPKINS & CO.,
Sole Agents for the Pacific Coast,
Junction of Bush & Market Sts., S. F.

RICHARDS' IMPROVED HEADER



STOCKTON CHIEF.

This Header for stanchness of build, lightness of draft and capacity for securing fallen grain, has no equal on the Pacific Coast. The manufacturers offer it with full confidence that it will give perfect satisfaction to all who purchase and use it. Manufactured by

MATTESON & WILLIAMSON,
Corner of Main and California streets, Stockton, Cal.

D. H. WHITTEMORE, Worcester, Mass., makes a machine that at once pares an apple, slices off and separates. Warranted satisfactory. Price, $1 and $1.50 each. Sold by Dealers.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

CENTENNIAL WINDMILL.

CHEAPEST. Most DURABLE.

I am now selling this Windmill at prices less than a corresponding grade of mill has ever been offered in this market, therefore I claim it is the CHEAPEST.

The Wheel is a solid rosette, constructed of the best material. All the bearings run in wood, and can never cut or grind if left without oil for a few days.

The Crane, or Turntable, is composed of wrought and cast iron, combined so as to secure all the strength of the material used. The Hub and Crank Flange are not fastened by keys or pins, but cast on to the shaft, and cannot come off or become loose. For these reasons I claim it is the MOST DURABLE.

The Rosette Wheel has more power than any other of the same diameter. The Cross-vane is easily operated, and perfectly controls the mill. These mills can be set up by any person, as there is nothing complicated in their construction.

PRICES:

10-foot Mill, Rosette Wheel.....$75.00
12-foot " " " 90.00
14-foot " " " 125.00

Tanks Built to Order. Pumps of the best make on hand and for sale by

E. O. HUNT,
37 Fremont Street, San Francisco.

☞ Save the Commission to Agents by Purchasing Direct from the Manufactnrer.

The Famous "Enterprise"

(PEAKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,

Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,
Livermore, Alameda County, Cal.

ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

H. K. CUMMINGS. 1858. H. S. BALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

FRANK BROS. & CO.,

349 Market Street, - - - - - - - San Francisco, Cal.

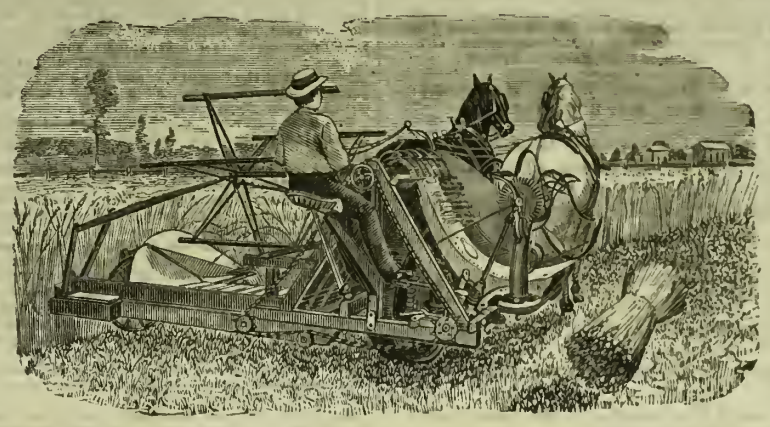
WALTER A. WOOD'S
IMPROVED IRON MOWER.

23,507 were made and sold last year. Their immense sale and unprecedented success IN PRACTICAL FIELD WORK, fully establishes their superiority over all other machines for SIMPLICITY and PERFECTION of CONSTRUCTION.

WALTER A. WOOD'S
Chain Rake and Sweep Rake Reaper.

WALTER A. WOOD'S
Harvester and Self-Binder.
The Greatest Labor-Saving Machine of the Age.

COATES' LOCK LEVER SULKY RAKE.



WALTER A. WOOD'S HARVESTER AND SELF-BINDER.

THE CELEBRATED
La Belle Farm and Freight Wagon.

SWEEPSTAKES THRESHERS,
SPECIALLY IMPROVED FOR THE PACIFIC COAST.

HAINES' HEADER,
WITH ALL THE LATEST IMPROVEMENTS.

Chaplin & Tiffin's Revolving Rakes,
Warranted the Best in the Market.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard. - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

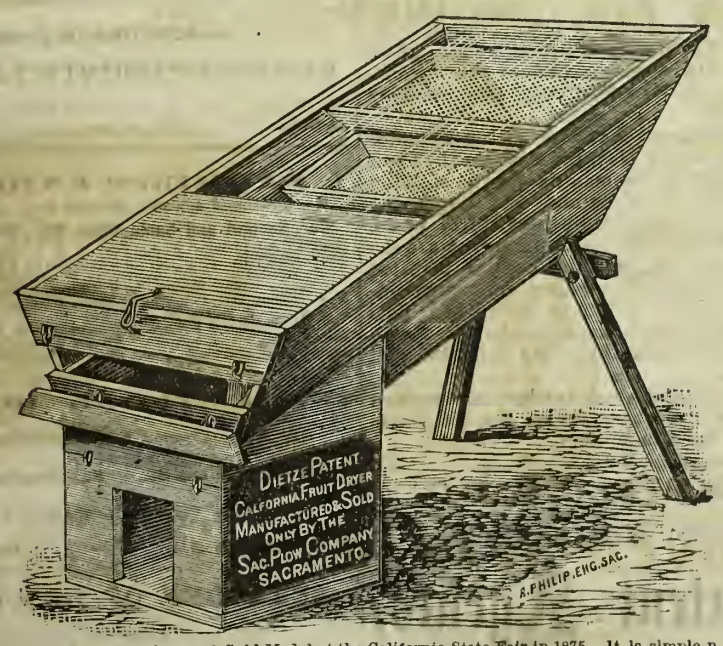
We are manufacturing SWAN & CO.'S PATENT ONE POUND BERRY BASKET. We are manufacturing the TIN TOP BERRY BASKET.

WE ARE SELLING ONE POUND BERRY BASKETS IN SHOOK AT FIVE DOLLARS PER THOUSAND. SAMPLE SENT BY MAIL

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

CALIFORNIA FRUIT DRYER.

DIETZ PATENT.



Was awarded the First Premium and Gold Medal at the California State Fair in 1875. It is simple n construction, and Cheap and Durable. Manufactured of different sizes and prices. They dry all kinds of fruit and vegetables in the most perfect manner. They can also be used for raisins and hops to great advantage. For further information apply to the

SACRAMENTO PLOW MANUFACTURING CO.,
Sacramento City, Cal.

The Gilmore Angora Goat
BREEDING ASSOCIATION,
IMPORTERS AND BREEDERS OF
PURE BLOODS,
—ALSO OF—
GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

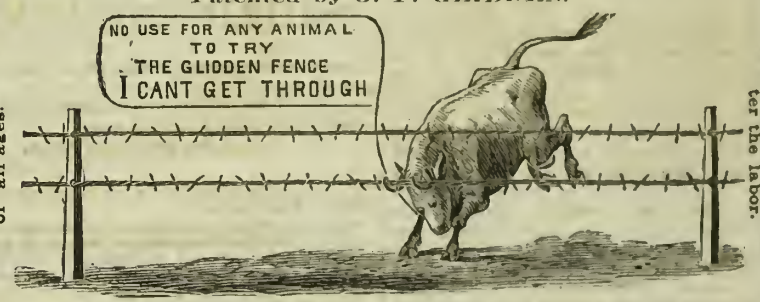
N. GILMORE,
Dorado, El Dorado Co., Cal.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other wood fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞ Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
General Agents for the Coast. K and 10th Streets, Sacramento.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth, Capacity, Etc.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wide	12 gal'ns.	6 in.
1	6 ft 10 in. l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 5 in. l'ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns.	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	75 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	85 gal'ns.	9½ in.

*Four pans in set.

NUTTING & WILLARD,
SACRAMENTO, CAL.

New York to San Francisco in Three Days and a Half.

Mr. Henry C. Jarrett, of the firm of Jarrett & Palmer, managers of Booth's theater has perfected a railroad project, the consummation of which will identify the firm name with one of the most memorable enterprises of the Centennial year. The first intimation of the scheme was incredulously received, but now it is apparent to the most skeptical that the idea of reaching San Francisco, 3,317 miles away, in time to dine on Sunday—the train having left New York on the previous Thursday—is soon to be a fact accomplished.

The time usually occupied by the gigantic trip is seven days, but in order to reduce this to the proposed one-half the Jarrett & Palmer train is bound to keep up a maximum rate of speed night and day continuously, and with no stoppages, until the Pacific coast is reached. Relays of engines must be in waiting at frequent stations, and the entire signal force of each road over which the train is to run, aggregating over 6,000 men, will be required for service, by day with flags, and by night with lanterns. Every other train must give this special fast train the right of way.

That no accident may be possible, Mr. Jarrett has given consideration to every suggestion leading to safety of the passengers, and to this end all the telegraphic stations will be kept opened, and pilot engines sent in advance of the approaching special locomotive.

The train will consist of one combination baggage and mail car, one superb day coach, now being built by the Pennsylvania railroad company expressly for the trip, and one magnificent Pullman palace hotel car, the mate of which is now on exhibition at the Centennial fair. But 20 passengers will be carried.

It is believed that the party will reach Pittsburg in about 10 hours; Chicago in 20 hours.

The tickets gotten up by Mr. Jarrett are very unique, the coupons being elegantly engraved leaves of a sterling silver book, the title page of which contains the inscription: "Jarrett & Palmer's special fast train—Continental train, New York to San Francisco, leaving New York Thursday, June 1, 1876." It is illuminated by a picture representing the train turning the Horse Shoe on the summit of the Alleghanies, near Altoona.

The route adopted is over the Pennsylvania railrosd from Jersey City to Pittsburg; from Pittsburg to Chicago, over the railway of the Pittsburg, Fort Wayne and Chicago company; from Chicago to Omaha by the Chicago and Northwestern railway; from Omaha to Ogden, over the Union Pacific railroad; and from Ogden to San Francisco by the Central Pacific railroad. The day selected for the start is Thursday, June 1st.

Sales of Farming Lands.

Kern County.

The United States patent for the lands lying south of Delano, in this county, a distance of 40 miles, has been issued. The lands patented include the odd sections extending eight miles east of Bakersfield. The greater part of the fertile lands lying within the boundaries of new and old Kern river have already been disposed of by them, and are now owned by Messrs Haggin & Carr. They amount to about 60,000 acres. With the use of scrip, and by purchase of settlers, the same parties have become owners of about 40,000 acres more adjacent, making 100,000 acres nearly in a body. It is also understood that the same parties have recently purchased the land interests connected with the Calloway canal, which includes a large tract of country on the north side of the river, through which the canal of the Kern River land and canal company runs, and which is included in the purchase. Messrs. Haggin & Carr are the largest land proprietors in the county.—*Kern Courier.*

Ventura County.

Ocean View is that beautiful tract of land recently laid out into lots by Dr. Eells, lying at the lower end of the Rancho Santa Paula y Saticoy. Its nearness to the county seat, its rich soil and warm exposure, and its beautiful view have always made it especially desirable and attractive to those seeking suburban homes. On some accounts it is even more desirable than any other locality in the county. It gets the first kiss of the morning sun and is never intensely heated. Since the land has been laid off in lots it has been much improved. Where two years ago there was nothing but mustard, grass and barley, we now see neatly improved farms. Messrs. Wagner, Wyman, Truesdell, Ley, Cheeves and Barlow have all planted out orchards and built good houses. Messrs. Grimes, Shaw and Brooks at the lower end of the ranch have planted out orchards and put their tracts in fine condition. Other parties would have built if an abundance of water could have been had. The water ditch runs above the Ocean View and in a short time an ample flow of water for the whole neighborhood can be had. Land which was bought at $40 and $45 per acre 18 months ago now sells readily at from $60 to $80 per acre. This demonstrates how profitable is the division of large ranches into small lots.—*Ventura Signal.*

See Advertisement of Immigrant Bureau in another column. Any of our readers wanting good reliable help would do well to send their orders to J. Earl, No. 40 California street, as nearly all the immigrants arriving call at the Bureau, which is the only Grange office of the kind on the coast.

Patents & Inventions.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports foa the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Speotal Dispatoh, Dated Washington, D. C., May 30th, 1876.

For Week Ending May 16th, 1876.*

Well Borers.—John Milton Creal, Los Angeles, Cal.

Shackles.—William H. Lininger, Salem, Ogn.

Hydraulic Nozzles.—Henry C. Perkins, North Bloomfield, Cal.

Trace Fasteners.—William Quinlan and Alexander Peers, Mayfield, Cal.

Transplanters.—Robert L. Widney, Los Angeles, Cal.

Sleeping Cars.—Emanuel Blochman, S. F. Cal.

Adjustable Bolsters for Beds.—Jacob Hoffmann, Portland, Ogn.

Auger Handles.—James Mayers, Gervais, Ogn.

Windmills.—James Ward, Winnemucca, Nev.

Underground Irrigation.—The subject of underground irrigation was recently advanced by one of our querists. Information of success in this line is important. We find in the Los Angeles *Herald* a description of the Anita villa, owned by Mr. W. Cogswell. Mr. Cogswell has removed the brush from about 100 of the 400 acres of his purchase, placed the soil in excellent condition and set out 1,500 orange trees, 600 lemon and 800 lime trees. His trees are from two to six years old, and this season a number of them are in bloom. He will have a good showing of fruits. The supply of water is equal to the demaud, and it is carried over the grounds beneath the surface in pipes. The trees are irrigated by means of hose attached to the hydrants, which connect with the undergronud pipe at convenient distances from each other. Mr. Cogswell has laid self-irrigating earthen pipes beneath his lawn, and the cold spring water from the mountains is carried wherever reqnired in his buildings. He has a cement lined reservoir of sufficient capacity to meet the demand for an extra supply of water.

[Com.]

Little Borax Lake, Lake Co., Cal., May 25th, 1876.

To the Editor Rural Press:

Dear Sir:—I wish to draw the attention of your readers to Wakelee's Squirrel and Gopher Exterminator, which I have used during the past year upon the ranch of Thos. H. Buckingham, of which I have charge. It has been a complete success, clearing the ranch of Squirrels, and the bounty on the tails of those dying upon the surface was sufficient to more than pay all expense of poison and poisoning. Hoping these facts will induce the farmers of Lake county to exterminate this pest,

I am, yours very truly,
WILLIAM GRAHAM.

Our Agents.

Our Friends can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. Tharp—San Francisco.
B. W. Crowell—California.
John Rostron—California.
G. W. McGrew—Santa Clara county.
J. M. McArthur—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diago counties.
J. W. Riley—San Francisco.
William Partin—Alameda county.
J. Thomas Johnson—California and Nevada.
A. C. Knox—El Dorado county.
F. A. Scofield—Sonoma county.
C. N. Wehr—Santa Cruz county.
E. B. Hopkinson—San Francisco.
Chas. E. Sajous—Philadelphia.
J. J. Chappell—San Francisco.

Fairs in 1876.*

The Cantennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

L. F. Moulton, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

A Valuable Grain Drill Improvement.—Messrs. P. P. Mast & Co., the well-known agricultural implement manufacturers, of Springfield, O., advertise their new "Buckeye Force Feed" in our columns. This feed has been acknowledged to be the best ever introduced, as its sales fully testify. Our agricultural readers will do well to read the advertisement and inquire after the "Buckeye."

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Managerie, Seal Ponds and Skating Rink.

Collateral Loan and Savings Bank, N. E. Cor. Post & Kearny Sts., S. F.

The attention of all our readers is called to the objects for which this Association is incorporated, which are to loan money on collateral security, to receive money on deposit, and to transact a general banking business. The prime object, however, is to advance money on pledges of diamonds, watches, plate, furniture, etc., subject to the legal rates of interest—four per cent. per month. The Bank will also receive term deposits, of six and 12 months, subject to at least 30 days' notice before being withdrawn, and allow interest thereon at the rate of one and one-quarter per cent. per month, respectively. Such deposits will be loaned out only upon proper securities and pledges.

The Bank will also receive deposits subject to call or check, and upon such deposits no interest will be allowed.

Many larger banks of this description have for years been in successful operation in Paris, and in all the principal cities of Europe, and in the City of Mexico, under the patronage of their respective governments. The institutions in Paris loaned out during the year 1873 the enormous sum of 54,000,000 francs, or about $10,800,000. More recently similar institutions, or banks, have been organized in Boston and New York City, under special charters from the States of Massachusetts and New York. No city in the United States offers such splendid inducements for an enterprise of this character as the city of San Francisco, where people are subject to peculiar and sudden reverses of fortune. The quantity of jewelry, plate, and articles of value which are pledged in this city yearly as collateral security, is enormous.

The bank will be managed upon strict business principles; at the same time to its safety and profit and with liberal dealing to its customers.

The stock of the Bank is 30,000 shares, of the par value of $50 each; which, until further notice, will be sold at the Bank at $10 per share. This will give a cash capital of $300,000, which, loaned out at four per cent. per month, will give a monthly return of $12,000, or $144,000 per year; less rent and expenses, say $14,000, will leave $130,000 per year to be divided among the shareholders.

The dividends will be declared monthly after the first two months' business.

The Directory of the Bank is composed of well known business men of San Francisco, and as such gives to its customers a guarantee of fair and liberal dealing.

Subscriptions for a large amount of Stock have already been received, and subscription books for a limited number of shares, at $10 per share, will, until further notice, be open at the Bank.

SOLON PATTEE, President.
F. S. CARTER, Secretary.

McCormick's Mowers and Reapers.

☞FARMERS wanting to purchase Mowers or Reapers this season will serve their own interest by examining the McCormick Machines before purchasing. Every McCormick Machine sold is guaranteed to give satisfaction to the purchaser, if correctly set up, or purchase money returned.

McCormicks' character as the inventor of the Reaping Machine is national. Their experience in the manufacture of Mowing and Reaping Machines, and improving them, extends over the past thirty years. Their facilities for manufactnring are the most complete, and the capital invested in the business the largest of any manufacturers in their line in the world. This of itself is a safe guarantee to those who patronize them that they will be well treated.

For circulars and further information address P. Mohan, agent, No. 106 Davis street, San Francisco.

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.
Examinations Ordered and Reported by Telegraph.
Examinations made of Assignments Recorded in Washington.
Interferences Prosecnted.
Opinions Rendered regarding the Validity of Patents and Assignments.
Re ected Cases taken np and Patents Obtained
Every legitimate branch of the Patent Agency Bnsiness promptly and thoroughly conducted.
Send for Circnlar

Lands and Homes for Sale.

A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
Pala, San Diego County, Cal.

Fine Dairy Farm for Sale.

An undivided half interest in a fine Dairy Farm of 640 acres patented land, all inclosed. One hundred acres is good agricultural land, on which fine crops of timothy hay, potatoes, apples, etc., are raised. Balance affords fine grazing for 100 head of cattle and is also handsomely timbered. Plenty of fine running water at all seasons, and a valuable mill site and privilege are on the land. A good cash home market for all the produce of the place. Improvements, a comfortable house, three large barns, farming implements, wagons, etc. Also 40 head of good milch cows, 60 head of young cattle, horses, etc. There is also a large outside range of from 2,000 to 3,000 acres held under possessory title. Will be sold at a bargain. For particulars apply to

BERRY & CAPP, 418 Mont'ry St.,
Real Estate Agents and House Brokers

FOR SALE,

A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

For further particulars, apply to

W. R. STRONG & CO.,
, 8 and 10 J St., - - - - Sacramento,

—OR—

STRONG & WILLIAMSON,
418 and 420 Clay St., - - - San Francisco.

FOR SALE,

A well improved Farm of 160 acres, with or without the crop, one-quarter of a mile from Linden, 12 miles from Stockton. Apply to

JAMES DRAGE, Linden, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

FARMERS' UNION.

Successor to A. Priester & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - - - - - $100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER
Directors:—Wm Erkson, L. F. Chipman, Horace Little, J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

SEARCHER OF RECORDS

—FOR—

SONOMA COUNTY,

California,

F. G. NAGLE, - - - SANTA ROSA.

HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

Subscribers are requested to examine the printed address on their papers. If mistakes occur *at any time*, please report them to the office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4jl76.

A Southern Home for Sale.—See advertisement of Lee H. Utt, whose fine place in San Diego county is for sale.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 31st, 1876.

The local trade has not disclosed any remarkable features during the week. The price of Wheat has been steady, and the feeling among holders firm. The export movement of grain during the last few weeks has reduced the stock of old so low that many believe it is to be less than enough to meet actual requirements. It is certain that this year's crop will come upon a bare market and will be advantaged thus far.

There has been report of an active and extensive export trade in Wheat on the Eastern seaboard. This matter is considered in our editorial columns.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday	9s 8d@ 9s 10d	9s 10d@10s 4d
Friday	9s 9d@10s —	10s —d@10s 6d
Saturday	9s 9d@10s —	10s —d@10s 6d
Monday	9s 10d@10s —	10s —d@10s 6d
Tuesday	9s 10d@10s 2d	10s 2d@10s 6d
Wednesday	9s 10d@10s 2d	10s 2d@10s 6d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 7d@12s 10d	12s 9d@13s —
1875	8s 10d@ 9s 1d	9s 1d@ 9s 5d
1876	9s 10d@10s —	10s — @10s 6d

The Foreign Review.

The effect of the Continental demand for Wheat in the face of improved weather in England is shown by the following telegraphed review from the *Mark Lane Express* of May 29th:

"Although it is impossible to speak with certainty, it appears probable that the change of weather will materially alter the state of the country and modify the surmises of disaster regarding the crops. Ordinarily, this change would have depressed the Wheat market, but the operations of Continental buyers have counteracted the weather and maintained the fairness of price which was noticeable the previous week. This continued inquiry from the Continent is the most prominent feature of the trade; if it should continue, in the face of the favorable growing weather here and abroad, the fact would indicate that the stocks really are nearly exhausted, and that farmers have not on hand the Wheat which many supposed was only being held back for higher prices. All leading breadstuffs have fairly maintained their value. Oats, in the face of heavy supplies, have advanced nearly a shilling per quarter."

Freights and Charters.

There has been another active week in freights for future loading of Wheat. The demand for immediate loading has almost ceased. Most charters are held private, but the prevailing price for June and July loading may be placed at £3 5s. The Wheat engagements for the week have been as follows:

Ship *Sovereign of the Seas*, 1,502 tons; Wheat to Liverpool, £3 5s, July loading. Italian bark *Rocco Schiaffino*, 1,075 tons; Wheat to Cork, July loading. French bark *Havre*, 637 tons; Wheat to Cork or Continent, July loading, owners' account. Ship *Nimbus*, 1,302 tons; Wheat to Liverpool. July loading, prior to arrival, private. Br. ship *Victoria Nyanza*, 1,022 tons; Wheat to Liverpool, June-July loading, private. Ship *Coldstream*, 806 tons; Wheat and mdse to Liverpool, private. Ship *Pactolus*, 1,204 tons; Wheat to Liverpool, July loading, prior to arrival, private. Br. ship *The Bruce*, 1,146 tons; Wheat to Cork for orders, U. K., July loading, private. Br. ship *British Navy*, 1,217 tons; Wheat to Cork for orders, U. K. or Continent, July loading, private. Br. ship *Sydney Dacres*, 1,380 tons; Wheat to Cork for orders, July loading, private. Br. ship *Isle of Erin*, 850 tons; Wheat to Cork for orders, new crop loading, prior to arrival, private. Br. ship *Corolla*, 1,264 tons; Wheat to Cork for orders, new crop loading, private. There is now in port 21,330 tons engaged for new crop Wheat loading, 13,868 do do for spot loading, and 7,695 tons engaged for miscellaneous purposes. There is now in port disengaged tonnage comprising 16 vessels, aggregating 12,353 tons.

New Barley.

According to the *Bulletin*, the steamer *Alice Garrett* arrived Monday night from San Joaquin with the first cargo of new Barley this season. The consignment is 3,300 cenials, and was shipped from Hill's Ferry. A small consignment received a few days ago was pronounced to be new Barley after it had been sold, but we cannot vouch for this statement. The datea when new Barley was first received in San Francisco, and the prices realized, are annexed:

Year.	Month.	Price.
1870	June 17	$1 22½
1871	June 12	1 37½
1872	June 6	1 40
1873	June 5	1 10
1874	June 9	1 45
1875	June 2	1 40
1876	May 30	1 05

The consignment just at hand has not been sold up to the present, but would probably bring the figure we have named, though large lots have been offered for next month's delivery at $1. It is said that the ship *Canada* will take 1,000 tons to New York in June.

Bags.

The full force of the Bag speculators is now being thrown on the price, and it has made a marked advance, as appears in the proper place below. We believe that the squeeze must spend its strength soon. The expected consignment of Bags are slow to arrive, but there are many coming. No one will think of purchasing largely at present prices, unless there be a special need. On this point the Sacramento *Record-Union* makes the following remarks:

"Interested parties have been endeavoring to show that there is at present a prospect of a deficiency of 7,520 000 bags to move the present crop in. In view of this showing some of our contemporaries are advising the farmers to hurry up and supply their wants of sacks. Now, we protest against such advice, and would suggest a very different course of action. The effect of following such advice would be a rise in the price of Bags at once. Holders seeing the scare on the part of the farmers would combine and put up the prices, and thus help in the creation of an unnecessary bag panic, which, by continuing the combination, would be kept up during the season. If the advance in consequence of such ill-advised action should be but one cent per sack, it would rob the farmers for the benefit of the speculators of $26,500. The better, or at least more prudent, course for farmers to pursue under the circumstauces, presuming them to be true, would be to buy at present only a part of the sacks they expect to need during the season; to build temporary granaries, or grain bins, if they have not store room sufficient, in their fields, and as they thresh store a part of their grain in these. Thus the immediate demand for Bags will be kept within the immediate supply, and later orders will be filled so as to meat later demand—the demand to move the stored grain."

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week May 10.	Week May 17.	Week May 24.	Week May 31.
Flour, quarter sacks	21,465	34,912	29,349	28,851
Wheat, centals	59,330	57,285	25,63[illegible]	103,858
Barley, centals	14,454	11,825	25,897	24,216
Beans, sacks	944	1,521	1,201	1,106
Corn, centals	4,043	3,803	3 578	4,829
Oats, centals	1,071	1,753	3,342	679
Potatoes, sacks	10,091	5,262	11,12[illegible]	8,449
Onions, sacks	822	128	779	1,062
Wool, bales	8,643	8,072	7,260	5,131
Hops, bales	98	161	67	105
Hay, bales	1,291	1,072	1,321	845

Bags—In view of the week's transactions we advance our quotations for Bags to 13¾@14c for standard wheat sizes. These are spot prices. It is the opinion of some that better prices can be made for future delivery than for present needs.

Barley—Feed and Brewing are quiet at reduced prices. We note sales of 70 sks heavy Coast Feed at $1.10, half silver; 100 Bay do at $1.15, half silver; 300 sks Coast Feed at $1.10; 800 do Bay Feed at $1.12½, silver. The feeling to-day is weaker than earlier in the week when these sales were made.

Beans—Beans have fluctuated somewhat since our last report, as will appear by prices quoted in our tables.

Corn—Corn is unchanged. We note a sale of 300 sks small Yellow at $1.25 per ctl.

Dairy Produce—Butter and Cheese are plentiful, and sell at former prices.

Eggs—Eggs are dull.

Feed—New Hay is coming in in large quantities. The prevailing prices are $9@12.50 for new; $9@16 for old. We note sales: 34 tons new Wild Oat, $10.75; 40 do new Wheat and Oat, $11.50; 30 tons good new Wheat and Oat at $11; 44 choice do, [at $12 per ton.

Fruit—The first shipment of Briggs' early May Peaches were received Tuesday evening. Currants are coming in freely. Strawberries are advancing. Cherries are cheaper for common kinds. Choice Tartarian are still high. The first Blackberries came during the week and sold at $1 per lb.

Hops—There is nothing new in Hops. We note a sale of 19 bales at 10¼. The New York trade is reviewed by Emmet Wellis for the week ending May 19th, as follows:

"The same dullness which has characterized the trade for several weeks past continues, and prices are more or less nominal. Receipts are light, but are in excess of that of the correeponding week of last year. We note somewbat heavier shipments to London this week, bnt as stocks are plenty these clearances produce no apparent salutary effect; the Hops go forward to London on owner's account, simply because there is no market for them here. There has been a small inquiry from brewers at unchanged prices. Holders will soon begin to speculate on the chances of the coming crop. Present indications point to a good yield, both at home and abrosd, though it is rather early in the season to judge much of the chances beyond the fact that the roots in most of the important districts have wintered well. This week will about finish the first tying. Hop roots are bringing only 35 cents per bushel; last year the price was $5."

Oats—The demand for Oats is moderate and prices unchanged. We note sales as follows: 50 sks good Feed at $2.37½, half silver; 200 sks Oregon at $2.50; 300 do Medinm Feed at $2.25 and 100 do Good at $2.37½.

Onions—New Onions are cheaper and are received in large smount. There have been sales at $1 ₱ ctl.

Potatoes—Potatoes are lower. Old Potatoes do not exceed $1 ₱ ctl. New Potatoes range from $1 to $2.25, according to the quality, which is very various. We note sales: 30 sks now Early Rose at $2; 375 sks new Half Moon Bay and Mission Bay at $2.25@2.50; 100 sks Salt Lake at $1.50; 100 sks good Tomales at 95c ₱ ctl.

Provisions—The market for Fresh Meat is well supplied and weaker.

Poultry—There is a little scarcity in the Poultry supply and prices are advanced.

Vegetables—String Beans are very abundant and cheaper. Green Peas, Summer Squash and Cucumbers are also cheaper. Green oorn has sold at 50c ₱ dozen.

Wheat—The feeling in Wheat is firm aud prices are a shade better on some sales. We hear of sales of now crop at $1.60. Another sale of 500 tons new, to be delivered within 45 days, is reported at $1.57½. We note sales as follows: 1,800 sks choice Milling in two lots, $1.70; 1,200 sks Good, $1.67½; 3 000 do Choice Milling, $1.73¾; 300 do Good, $1.70; 1,800 do Choice, $1.72½; 10,000 do New, $1.57½; 1,000 do Old Shipping, $1.67½; 1,800 do Good Milling, $1.70; 1,000 ctls good Milling at $1.70; 800 ctls Choice Shipping at $1.62½; 166 do at $1.61½ ₱ ctl.

Wool—We learn nothing new in regard to Wool in the local market. There have been considerable transactions at former rates. The Eastern markets are reported by telegraph as follows:

NEW YORK, May 27.—There is still an absence of demand for large lots of Wool, business being confined entirely to small parcels for immediate consumption. Sales for the week are: 65,000 pounds new Spring California, at 20@21c; 3,000 pounds black do, 16½c; 14,000 pounds Fall do, 13@18; 11,300 pounds improved western Texas, 16@17c; 23 bales super pulled, 32c; and 31 bags do, 25 do, XX do, 10 do lambs' do, 30,000 pounds X and above Ohio fleece, 25,000 pounds Pennsylvania do, 28,000 pounds Fall California, 25,000 pounds scoured do, 250 bags white, colored, 40 do black do, 10 balos Nevada, 2,000 pounds new western Texas, 8,000 pounds improved do, 6,000 pounds improved do Eastern, 20,000 pounds Fall do, and 2,500 pounds Capeskins, on private terms.

BOSTON, May 27th.—The demand for Wool during the past week was almost exclusively for new Spring California. There was no improvement in the market, and prices continue to rule low. The stock of fleece Wool is very much reduced; X Ohio and Pennsylvania cannot be quoted over 38@40c; XX Pennsylvania and Ohio, 40@43c; and XXX and Picklock, 45c. At these prices manufacturers are purchasing only in small lots, as many believe that with the advent of the new clip a lower range of prices will prevail. In Michigan and Wisconsin fleeces sales were about 80,000 lbs, principally at 34@35c. The demand for California Wool is good, sales comprising 658,000 lbs for the week, at from 15½@28c, for Spring, and 14@18c for Fall. The principal sales of Spring California were at 22@25c, and this is a fair quotation for good average lots. One lot of very choice Spring was sold at 28c, bnt this is considered an outside price for choice Northern. Wool holders are free sellers at quotations, and are anxious to close up their stocks as fast as possible. Combing and delaine Wools are neglected. Sales of medium washed at 40c; unwashed, 33½@36c. The stock of pulled Wool is large, and prices are low and unsatisfactory. Sales of the week, 146,000 pounds, including some very choice Eastern and Maine snper at 40@45c; but good average supers are selling at 35@38c, and it is difficult to get over 40@42c for the best Eastern aud Maine.

GENERAL MERCHANDISE.

WHOLESALE.

WEDNESDAY M., May 31, 1876.

BAGS.

Cal. Stand Wht..	13¾@14
Neville & Co's...	
Hand Sewed....	13¾@14
24x36	— @—
24x40	— @—
Machine do 24x40	— @15½
" " 23x40	11½@—
" " 22x40	14 @—
" " 22x36	13 @13½
Flour Sacks ½a...	9½@11
" " ⅛.....	6 @ 7
" " ¼s.....	4½@ 5
Hessian 60-in.....	12¼@14½
do 45-in.....	— @10
do 40-in.....	8½@9
Wool Sacks,3½lbs.	45 @50
do 4 " .	50 @52½
Stand. Gunnies..	— @15
single seam do..	— @—
Bean Bags.....	7½@ 8

CANNED GOODS.

Asst'd Pic Fruits in 2½ ₱ cans.	2 75 @ 3 60
do Table do...	3 75 @ 4 25
Jams & Jellies	4 25 @ —
Pickles ½ gl..	— @ 3 50
Sardines,qr box	65 @ 1 90
do ½ boxes.	3 00 @— —

COAL—Jobbing.

Australian, ₱ ton	— @10 50
Coos Bay	8 00 @10 00
Bellingham Bay,	— @ 8 50
Seattle	10 00 @— —
Cumberl'd	—18 00@22 00
Mt. Diablo	6 25 @8 25
Lehigh	— @22 00
Liverpool	10 00 @11 00
West Hartley	— @14 00
Scotch	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl.	10 50 @12 00
Charcoal, ₱ sk	75 @ —
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per ₱	22½@ —
Guatemala	— @ 22½
Java	— @ 30
Manilla	— @ 21½
Ground in cs	25 @ —
Chicory	27 @ —

FISH.

Sac. Dry Cod, new cases	4 @ 4½
do boneless	6 @ 7
Eastern Cod	8 @ 8¼
Salmon in bbls	7 25 @ —
do ½ bbls	3 75 @4 00
do 2₱ oans	2 50 @—
do 1₱ cane	1 35 @1 40
do Col. R. ½	5 00 @5 50
Pick. Cod, bbls.	22 00 @—
do ½ bbls	11 00 @—
Mack'l, No.1, ½bls	11 00 @—
" Extra	— @12 00
" in kits	1 90 @2 25
" Ex mess	3 50 @4 00
" Ex mess, ½bs	—@12 00
Pic'd Herr'g, bx.	3 00 @ 3 50
Boat. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'ta Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Laod Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Pulu	— @ 7½

NAILS.

Assorted size, keg	3 75 @4 00

OILS.

Pacific Glue Co	
Neat F't No. 1	1 00 @ 90
Pure	— @ —
Castor Oil, No.1	— @1 15
Baker's A A	— @1 15
Cocoanut	52 @ 55
Olive Flagnioli	5 50 @5 75
do Possel	4 75 @5 00
Palm lb	9 @—
Linseed, raw	— @ 70
do boiled	— @ 75
China nut in oa..	65 @ —
Sperm, crude	60 @1 65
do bleached	1 90 @2 25
Coast Whales	67½@ 80
Polar, refined	— @ 50
Lard	— @1 20
Oleophine	— @ 28
Devoe's Bril't	25 @ 27
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petro'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive	— @3 50
Downer Kerose'e	— @ 37½
Elaine	37½@ —
Gas Light Oil	23 @ 25

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Ochre	— @ 3½
Venetian Red	— @ 3½
Red Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal. White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60

RICE.

China No. 1	5¾@ 5½
Hawaiian, ₱ lb	7½@ 7¾
Carolina, ₱ lb	10 @

SALT.

Cal. Bay, per ton	10 00@14 00
do Common	5 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	22 50@25 00

SOAP.

Castile ₱ lb	10 @ 11¼
Common brands	4½@ 6
Fancy do	7 @ 9

CANDLES.

Grant's	16½@ 17
Mitchell's	20 @ 22

SPICES.

Cloves ₱ lb	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmeg	95 @ 97½
Whole Pepper	14½@ 14½
Pimento	16 @ 17½
Gr'nd Allsp'ce	@1 12
do Cassia	@1 50
do Cloves	@1 50
do Mustard	@1 20
do Ginger	@1 00
do Pepper	@1 00
do Mace	@2 00
Bowen's Pure Ground ₱	@ 50

SUGAR, ETC.

Cal. Cube per lb	— @ 1
Circle A crushed	— @ 12
Powdered	— @ 12¼
Fine crushed	— @ 12
Granulated	— @ 11½
Golden C	— @ 10½
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 62½
Hawaiian Molasses	25 @ 27½

TEA.

Oolong, Canton, ₱	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial, Canton	25 @ 40
do Pingsuey	45 @ 80
do Mooyune	60 @1 00
Gunpo'der, Canton	25 @1 00
do Pingsuey	50 @ 80
do Moyune	65 @1 25
Y'ng Hy., Canton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	85 @ 85
Japan, ½ obeste, bulk	30 @ 75
Japan, lacquered bxs, 4½ and 5 lbs	45 @ 67
Japan do, 3 lb bxs	45 @ 90
do pl'n bx, 4½ lb	35 @ 65
do ½ & 1 ₱ paper	30 @ 55

TURPENTINE.

Eastern	51½@55

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., May 31, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	—@— —
Tahiti, do	25 00@— —
Cal. do	30 00@50 00
Limes, Mexican, ₱ M	10 00@— —
Malaga Lemons, ₱ bx	— —@— —
Cal. ₱ 100	1 50@ 2 00
do Sicily ₱ b'x	6 00@ 8 00
Bananas, ₱ hnch	2 50@ 5 00
Cocoanuts, ₱100	6 00 @ 7 00
Pinaapples, ₱ doz	6 00 @ —
Apples, ₱ box	— @ —
do Choice	— @ —
Blackberries	— @ 75
Cherries, ₱ lb	10 @ 15
Tartarian	25 @ 35
Figs	— @ —
Gooseberries	5 @ 6
Strawber's ₱ case	6 00 @10 00
Pomgranates	— @ —
Raspberries	18 @ 20
Currants, ₱ case	6 00@7 00
Cranberries ₱ bbl	13 00@14 00
Peaches, ₱ bx	— @ —
Pears, ₱ bx	1 75 @3 00
do Choice	— @ —
Crab apples, ₱ bx	— @ —

DRIED FRUIT.

Apples, ₱ lb	9 @12½
Pears, ₱ lb	8 @13
Peaches, ₱ lb	12 @12½
Apricots, ₱ lb	14 @15
Plums, ₱ lb	5 @ 6
Pitted, do ₱ lb	17 @22
Raisins, Imported	3 25 @3 75
Cal. Raisins	5 @ 10
Black Figs, ₱ lb	5 @10
White, do	12½@15
Prunes	12½ @17
Citron	28 @ 30
Zante Currants	9 @ 10

VEGETABLES.

Asparagus ₱ box	1 50@2 75
Beets ₱ ctl	— @ 75
Cabbage, ₱ 100 lbs	1 00@1 25
Carrots, per ton	12 50@15 00
Cauliflower, doz	1 00@—
Celery, doz	50@1 50
Garlic, ₱ lb	6 @ 8
Green Peas ₱ lb	2½@ —
Green Corn ₱ doz	— @50
Sum'rSquash ₱ lb	4 @ 5
Marro'fat Sqush, tn	20 00@25 00
Artichokes, ₱ doz	— @—
String Beans, ₱ lb	5 @ 6
Lima Beans	— @—
Parsnips	— @—
Shell Beens	— @—
Peppers, green, bx	— @—
Okra	— @—
Cucumbers, ₱ doz	25@35
Tomatoes, box	—@ —
Egg Plant, ₱ bx	—@ —
Rhubarb	— @ 2½
Lettuce	— @ —
Turnips, per ctl	75@1 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & Co.]

SAN FRANCISCO, May 31, P. M.

LEGAL TENDERS in S. F., 11 A. M., 89½ to 90. Silver, 4 to 5 per cent. discount.

GOLD in N. Y. 112½.

GOLD BARS, 900 to 9.0. SILVER BARS, 12 and 20 per cent. discount.

EXCHANGE on N.Y., 50-100 per cent. premium for gold; on London bankers, 9; Commercial, 494; Paris, five francs per dollar; Mexican dollars, 9 per cent. discount.

LONDON — Consols, 93 to 93⅝; Bonds, 102⅛

QUICKSILVER in S. F., by the flask, per lb, 50@52c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., May 31, 1876.

BEANS.

Bayo, ₱ ctl	4 50@5 00
Butter	1 90 @2 25
Pea	1 92½@2 00
Pink	2 50@3 00
Sm'l white	1 60@1 90
Lima	1 90 @2 00

BROOM CORN.

Common, ₱ lb	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ lb	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll per lb	22½@ 28
Point Reyes	— @ 30
Firkin	22 @ 26
W'st'n Reserve	16 @ 20
New York	— @ —

CHEESE.

Cheese, Cal., lb	10 @ 15
do Old	— @ —
Eastern	15 @ 17

EGGS.

Cal. fresh ₱ doz	27½@ —
Ducks'	— @ 24
Oregon	— @22½
Eastern	21 @ 23

FEED.

Bran, per ton	— @17 00
Corn Meal	27 50 @28 00
Hay	8 00 @15 00
Middlings	22 50 @— —
Oil cake meal	— @37 50
Straw, ₱ bale	50 @ 60

FLOUR.

Extra ₱ bbl	5 50 @5 75
Superfine	4 50 @4 75
Graham, ₱ bbl	5 50 @— —

FRESH MEAT.

Beef 1st quality	6½@ 7
Second do	3½@ 4
Third do	2 @ 3
Spring Lamb	5 @ 5½
Mutton	3 @ —
Pork, undressed	7¼@ 8
do, dressed	11 @ 11½
Veal	5 @ 6
Milk Calves	6½@ 7½

GRAIN, ETC.

Barley, feed ctl	1 05 @ 1 15
do brewing	1 17½@ 1 20
Chevalier	1 25 @ 1 35
Corn, White	1 15 @ 1 20
do Yellow	1 15 @1 20
Oats	2 00 @ 2 12½
Milling	— @ 2 75
Rye	— @ 2 50
Wheat shipping	1 67½@1 70
do milling	1 70 @1 75

HIDES.

Hides, dry	10 @ 12
do wet salted	6 @ —

HONEY, ETC.

Beeswax, per lb	25 @ 27½
Honey in comb	12½@ 15
do Strained	8 @ 13

HOPS.

New crop	10 @ 13

NUTS—Jobbing.

Alm'ds h'd sh'l	8 @ 10
do, soft sh'l	16 @ 18
Brazil do	14 @ 16
Cal. Walnuts	7 @ 11
Chile Walnuts	11 @ 12½
Peanuts per lb	9 @ 10
Filberts	15 @ 16
Pecanuts	17 @ 18

ONIONS.

Union City ctl	2 50 @ —
Stockton	2 50 @ —
New	1 00 @ —

POTATOES.

Petaluma, ₱ ctl	75 @ 1 00
Salt Lake	1 25 @ 1 37½
Humboldt	75 @ 1 00
Early Rose	2 00 @— —
Sweet	— @— —
New, ₱ lb	1 @ 2

POULTRY & GAME.

Hens, per doz	10 0 @ 1 00
Roosters	10 0 @11 50
Broilers	4 00 @ 7 00
Ducks, tame, dr	8 00 @9 50
do Mallard	— @8 00
do Canvass	— @5 00
Geese, per pair	2 00 @2 50
Wild Grse, dz	3 00 @4 00
Whites	1 50 @2 00
Turkeys, live, lb	23 @ 21
do Dressed	24 @ 27
Quail, per doz	— @—
Snipe, Eng., doz.	2 00 @2 50
Doves, per dozen	50 @ 87
Rabbits	1 00 @1 00
Hare, per doz	1 50 @2 10

PROVISIONS.

Cal. Bacon, lb	16½@ 17
do Medium	15½@ 16
do Heavy	— @ 15½
Lard	15 @ 17
Cal. Smoked Beef	9 @ 10
Eastern do	— @ 10
East'n Should's	— @ 10
Hams, Cal	14 @ 14½
do Armour	14½@ 15
do Worster's	16½@ 17
do Dupee's	16 @ 16½
do Davis Bros'	16½@ 17

SEEDS.

Alfalfa, Chile	8 @ 10
do California	11 @ 12
Canary	18 @ 20
Clover Red	— @ 25
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3¼
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	3 @ 3½
do, Brown	3 @ 3½
Rape	7 @ 9
Ky. Blue Grass	33 @ —
do 2d quality	29 @ —
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	50 @ —
Mesquit do	20 @ 25
Timothy	11 @ 13

TALLOW.

Crude, ₱ lb	7 @ 7¼
Refined	9 @ 9½

WOOL, ETC.

SPRING—

Seedy, ₱ lb	11 @ 12½
Choice long free	17 @ 18
do short	13 @ 14½
Burry	10 @ 14
Oregon	— @ —

S. F. RETAIL MARKET RATES.

WEDNESDAY M., May 31, 1876.

POULTRY, GAME.

Chickens	50 @1 00
Eggs, Hens	35 @ —
do Ducks'	— @ 30
Turkeys, ₱ lb	30 @ —
Ducks, each	1 00 @1 25
Geese, wild, pair	— @ —
Tame, ₱ pair	3 00 @4 00
Snipe, ₱ doz	— @ —
do English	— @3 00
Quail, per dozen	— @ —
Prairie Ch'k's, pr	— @ —
Hares, each	25 @ 35
Rabbits, each	37 @ 50
Squirrels do	10 @ 15
Hams Cal	16 @ 20

FISH, MEATS, ETC.

Flounuer, ₱ lb	12 @ 15
Salmon, ₱ lb	— @ 5
Smoked	— @ 10
Cod Fish, ₱ lb	12 @ 15
Lake Big. Trout	— @ 25
Beef, tend, ₱ lb	20 @ 25
Corned, ₱ lb	8 @ 10
Smoked, ₱ lb	— @ 15
Porterhouse St'k	20 @ 25
Sirloin do	15 @ 18
Round do	10 @ 12
Pork, rib, etc., lb	12½@ 15
Chops, do, lb	15 @ 20
Veal, ₱ lb	12½@ 15
Outlet, do	20 @ 25
Mutton-chops, lb	6 @ 9
Leg Mutton	10 @ 15
Lamb, ₱ lb	12 @ 15
Antelope	— @ —
Tongues, beef	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, ₱ lb	12½@ —
Bacon, Cal., ₱ lb	18 @ 20

FRUITS, VEGETABLES.

Apples, per lb	10 @ 20
Pears, per lb	— @ —
Apricots, ₱ lb	— @ —
Peaches, ₱ lb	— @ —
Plums, ₱ lb	— @ —
Pine Apples, each	75 @1 00
Grapes, ₱ lb	— @ —
Bananas, ₱ doz	75 @1 00
Muskmelons	— @ —
Watermelons	— @ —
Blackberries	— @ —
Cal. Walnuts, ₱ lb	— @ 20
Cranber'es, Org	— @ —
do Eastern qt	— @ 25
Huckleberries	— @ —
Strawberries, ₱ lb	10 @ 20
Raspberries, ₱ lb	— @ —
Gooseberries	10 @ 15
Currants	— @ 15
Cherries, ₱ lb	10 @ 50
Tartarian	— @ —
Figs	— @ —
Mushrooms, ₱ lb	25 @ 35
Oberries, ₱ lb	10 @ 50
Nectarines	— @ —
Pomegranates	— @ —
Oranges, ₱ doz	50 @1 25
Lemons	50 @ 75
Limes, per doz	— @ 25
Figs, dried Cal	12½@ 15
Figs, Smyrna, lb	25 @ 35
Asparagus, lb	5 @ 8
Artichokes, doz	50 @ 75
do Jerusalem	— @ 8
Beets, ₱ doz	20 @ 25
Potatoes, ₱ lb	2 @ 3
Potatoes, sweet	— @ 6
Broccoli, each	10 @ 15
Cauliflower	10 @ 15
Green Peas ₱ lb	3 @ 5
Cabbage, per hd	15 @ 20
Oyster Plant, bu	— @ 12½
Carrots, ₱ doz	— @ 25
Celery, ₱ dz	75 @1 00
Cress, ₱ box	20 @ 25
Onions	4 @ 5
Turnips, ₱ doz bunches	— @ 25
Brussels Sprouts	— @ —
Eschalots	— @ 35
Dried Herbs, doz	50 @ 60
Garlic ₱ lb	12½@ —
Green Corn, doz	— @ —
Lettuce, ₱ doz	25 @ —
Mint, ₱ bunch	— @ 12½
Pumpkins, ₱ lb	5 @ 6
Parsnips, doz	— @ 25
Parsley	12½@ —
Pickles, fresh, ₱ lb	— @ —
Radishes, doz	20 @ 25
Sage	— @ 25
Marrowfat, do	1½@ —
Rhubard, do	— @ —
Mangoes, ₱ doz	— @ —
Spinage ₱ bskt	— @ 12½
Rhubarb	4 @ 6
Green Chillies	— @ 25

LUMBER.

CARGO PRICES OF REDWOOD.

Rough, ₱ M	18 00
Rough refuse, ₱ M	14 00
Rough clear, ₱ M	30 00
Rough clear refuse, ₱ M	20 00

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petalnma, Sonoma Co., Cal

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camellias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS, Santa Barbara, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

Agricultural Articles.

THE

Improved Eagle Hay Press

CHEAP, STRONG, ECONOMICAL, POWERFUL AND RAPID.

THE KIMBALL MANUFACTURING CO.,

Owners of the Patent, and Sole Manufactnrers on the Pacific Coast, make

Cars, Carriages and Agricultural Implements,

Cor. Fourth and Bryant streets, S. F.

Pressing hay in bales in a compact and easily managed shape has become one of the features in the industry of California farming.

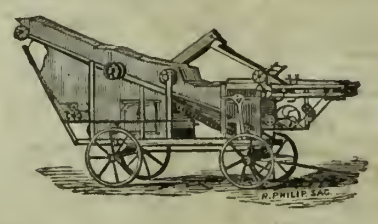
The large sales the past season, and the increasing demand of the present, gives proof of the advancement of the Improved Eagle Hay Press over all competitors on this Coast.

Three men, with a team, can bale from ten to fifteen tons per day, each bale weighing from 250 to 350 lbs., according to the quality of the hay. It uses less rope than any other press of its size. Size of bale box, 49 inches long, 26 inches wide and 27 inches high.

These presses are made in San Francisco, by the KIMBALL CAR AND CARRIAGE MANUFACTURING CO. Also manufacturers of agricultural implements, California grading scraper, farming tools, carts, plows, wheelbarrows, portable railway track and cars, railway and street cars, omnibusses, Taylor's patent tubular iron and wood harrows, with driver's seat attached, Harris' patent tubular iron square or Scotch harrow, steam fire engines, Hayes' patent fire escape, Southwick's patent turbine windmill, quartz and farm wagons, trucks, road scrapers, all styles and grades of harness; carriages trimmed to order; manufacturers and agents of Tulloch's automatic ore feeder; machinery made and repaired; fine carriages and all styles of buggies.

JACKSON'S

PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL.,

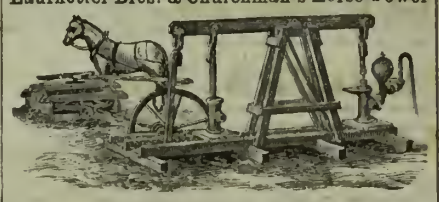
Will receive Prompt Attention

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

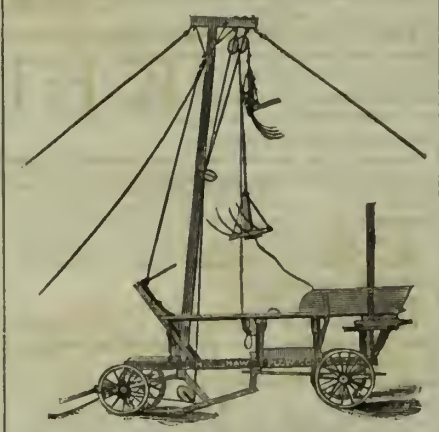
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON,

Stockton, Cal.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

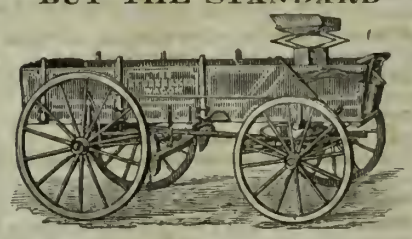
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,

Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

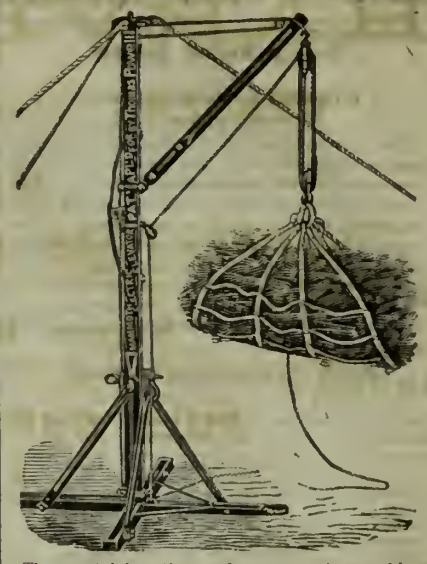
E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Price-list

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack, only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. C. SHAW PLOW CO., Stockton, Cal.

Marster's Self Regulating FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

E. J. MARSTERS,

Stockton, Cal.

Works, Corner California and Sonora Streets.

COHANSEY GLASS TOP FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.

Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Ca

TRADE MARK.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

CENTENNIAL.

5 Beautiful Views, size 3x4 inches each, of THE CENTENNIAL BUILDINGS at Philadelphia, postpaid for 25 cts; 5 sets for $1. Agents Wanted.

PHELPS BROS. & CO.,

125 Dearborn st.. - - - CHICAGO

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,

San Luis Obispo.

HARVESTING MACHINERY,

MOWERS—Wood's Eagle, Peerless & Clipper.

REAPERS—RUSSELL'S PEERLESS.

HEADERS—Haines' Genuine Single Gear.

SEPARATORS AND POWERS.

Chicago Pitts. with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

Steam Engines.

ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

LYMAN'S SELF-FEEDER.

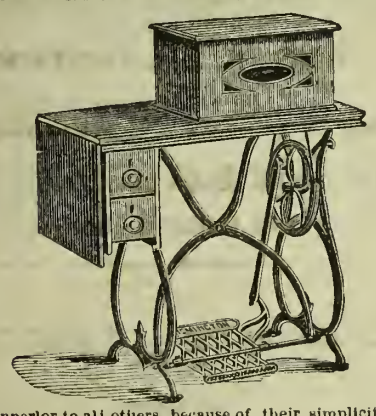
Invented by a practical thresher. Best in the market. Price only $150. It surpasses all others in durability and simplicity of construction. Can be applied to any Separator in a few hours, and taken off in 15 minutes. It is guaranteed to give satisfaction or no pay.

FULL SUPPLY OF "EXTRAS" FOR ALL OUR MACHINES.

Linforth, Kellogg & Co.,

Nos. 3 and 5 Front St, San Francisco, Cal.

REMINGTON SEWING MACHINES.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quiller, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,

629 Market st., under Palace Hotel S. F.

AGENTS WANTED FOR CITY AND COUNTRY.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of Lea & Perrins' Sauce, which are calculated to deceive the Public, LEA & PERRINS have adopted A New Label, bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of Worcestershire Sauce, after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

ALEX. BUSWELL,

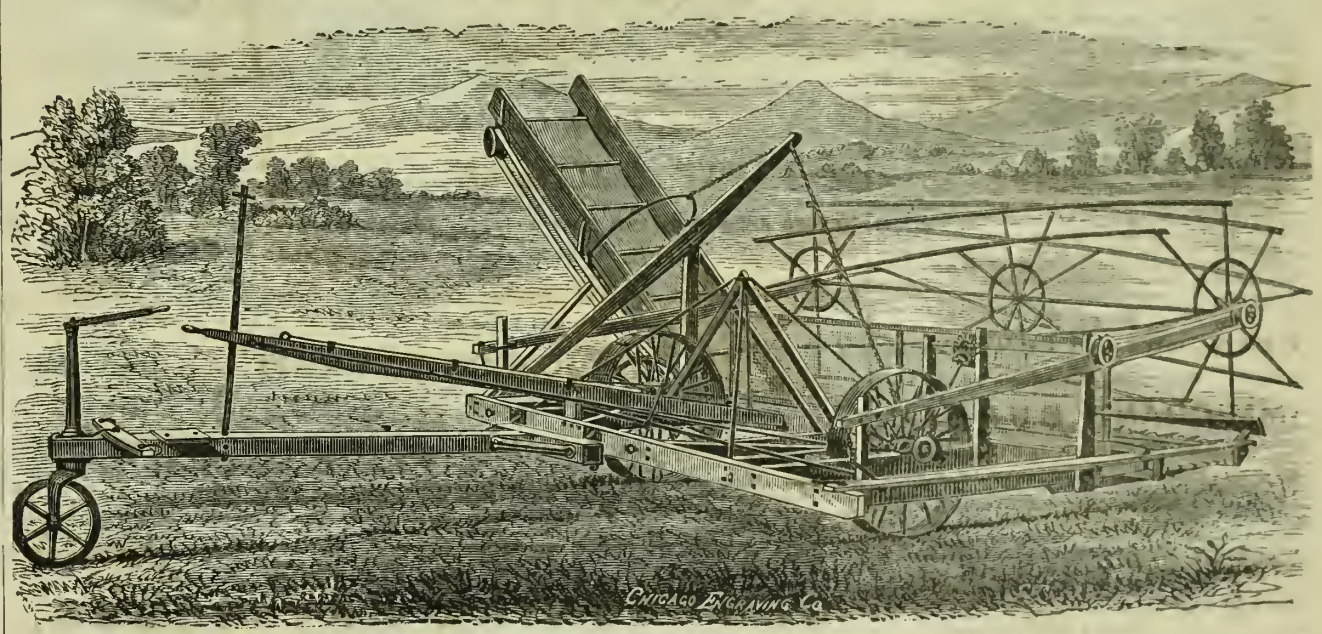
BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER,

521 Clay Street, S. F.

Blank Books Ruled, Printed, and Bound to Order

KELLER & CO.,



IMPORTERS AND DEALERS IN

AGRICULTURAL IMPLEMENTS, MACHINES AND FARMERS' TOOLS.

We are Sole Agents for the following Celebrated Machines:

J. I. Case & Co.'s 18-horse Engines.

We guarantee these Engines to furnish more power, with less fuel, than any other make in the market. They are handsome in appearance, mounted on substantial trucks, and furnished with driver's seat, roller break and hand pump.

J. I. Case & Co.'s 40-inch Separators,

With large cleaning capacity, made expressly and just imported for this trade.

Pitts' Down and Mounted Powers,

HEAVIER HAINES' IMPROVED SINGLE-GEAR HEADERS.

These Headers are manufactured by the same party who has superintended the building of all Headers ever made for this trade. Knowing the wants of this market, he has added many improvements for 1876, which will be found on no other Header.

J. I. Case & Co.'s Improved Single Gear,

WITH ADJUSTABLE SPOKES AND REEL.

These Headers are so well and favorably known that we only add for the year 1876 they are better made than ever before. We have these headers in sizes of 10, 12, 14 and 16 feet.

Mowers.

EXCELSIOR MEDIUM MOWER, EXCELSIOR JUNIOR MOWER, ÆTNA MOWER, WOOD'S MOWER, PEERLESS MOWER, MEADOW LARK MOWER. The finest assortment of noted Machines ever kept by one house.

Header Wagons.

The reputation of Fish Bros.' Pacific Wagons is so well established that parties buying these Wagons know without doubt they have the very best in the market. We have a large stock of IRON AXLE HEADER WAGONS. We guarantee them to run two years without the resetting of the Tires.

Lock-Lever Steel Tooth Hay Rake,

Awarded the FIRST PREMIUM at State Fair last fall as the best Steel Tooth Rake. This is a self-dumping Rake, and stands without a rival.

Sulky Revolving Rake

Has become very popular as the best Winrowing and Bunching Rake. Also, a full stock of Revolving Rakes.

Harpoon Hay Forks.

The double harpoon is the only reliable Horse Fork for all kinds of hay.

Faust's Hay Loader,

The only successful Hay Loader in the world.

Buckeye Corn Cultivator.

This is either a Riding or Walking Cultivator. More of them in use than all other makes combined.

The Gorham Seeder and Cultivator,

The Only Reliable Seeder now in Use.

Barbed Wire for Fence,

Also, Single Barbs, separate from the Wire. They can be attached to any Wire Fence anywhere. They are immovably clasped around the Wire, after the Fence is built, with pincers furnished for the purpose.

Halladay's Windmills.

They are the Standard Mill the world over. Have gained a reputation as broad as its use is extensive.

Wagons, Plows, Cultivators, Harrows, Seed Sowers, Etc., Header Knives, Mower Knives, Sections,

AT HALF THE USUAL PRICE PAID OTHER DEALERS.

Our Goods are the best in the market. Our prices are the lowest. Our manner of trading is well known all over the Coast. Our Machines are so well and favorably known that farmers make no experiment when trading with us. Send for Circular and Price List.

Address, KELLER & CO.,

43, 45, 47 J Street, Sacramento, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

The Mining and Scientific Press,

Established 1860, is a Large, Ably Edited and Liberally Illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & CO., San Francisco.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 73 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco Cal.

FAULKNER'S EXCELSIOR

Portable Family Fruit Drier,

$65.00 to $75.00.

The Best, Cheapest and Only Practical Portable Family Fruit Drier Made.

It will do as good work as any Drier. It can he nsed in connection with the cook stove or any small stove; may he run in the house or out of doors. Is very compact and plain in its construction and simple In its management. A child can attend to it.

With this Drier every family can save their surplns fruit, and put it in condition to hring the cash or trade at the store. We have the world for a market; last year's stock is exhausted. There will be a ready sale at good prices for all you can make.

Manufactured and for sale hy E. T. STEEN, 31 Beale street, where they can be seen In operation. Also for sale hy Messrs. STRONG & WILLIAMSON, 418 Clay street, San Francisco, and Messrs. W. R. STRONG & CO., 8 and 10 J street, Sacramento.

County Rights for 15 years for sale low and on easy terms hy

JAS. W. FAULKNER, Patentee,
31 Beale Street, San Francisco

HEALD'S Business College.

24 Post street, San Francisco.

The largest and hest Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such hroad culture as the times demand. Thorongh instruction is given in all the hranches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is nnsurpassed.

LADIES' DEPARTMENT.—Ladi s will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT. — In this Department young men and young ladies are practically and thoronghly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

P. of H.

GRANGERS, ATTENTION!!!

Grangers' and People's

IMMIGRANT BUREAU,

GRANGERS' BUILDING.

40 CALIFORNIA ST., - - - SAN FRANCISCO.

Farmers, send In your orders for help. We can send you all the good men you want at short notice, selected strictly according to your orders. Immigrants are arriving every day. All classes of help supplied, male and female. Address,

J. EARL,
Gen'l Immigration Agent of State Grange,
GRANGE HEADQUARTERS,
No. 40 California Street, San Francisco.

LEVI STRAUSS & CO.,

Patent Riveted Clothing,

14 & 16 Battery St.,
San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

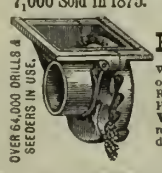
POND LILIES,

WHITE FLOWERING.

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,
Pacific Forest Tree Nursery, Petaluma, Cal.

7,000 Sold in 1875. **NEW FORCE FEED** FOR **Buckeye Grain Drill.**



OVER 64,000 DRILLS & SEEDERS IN USE.

Will sow any desired quantity WITHOUT CHANGE OF GEAR. Will sow Wheat, Rye, Oats, Barley, Beans, Peas, Corn, Flaxseed, &c. **Just What You Want.** It beats any Force Feed ever made. Send for a circular, or ask your dealer to show you the **Buckeye.**

P. P. MAST & CO., Springfield, O.

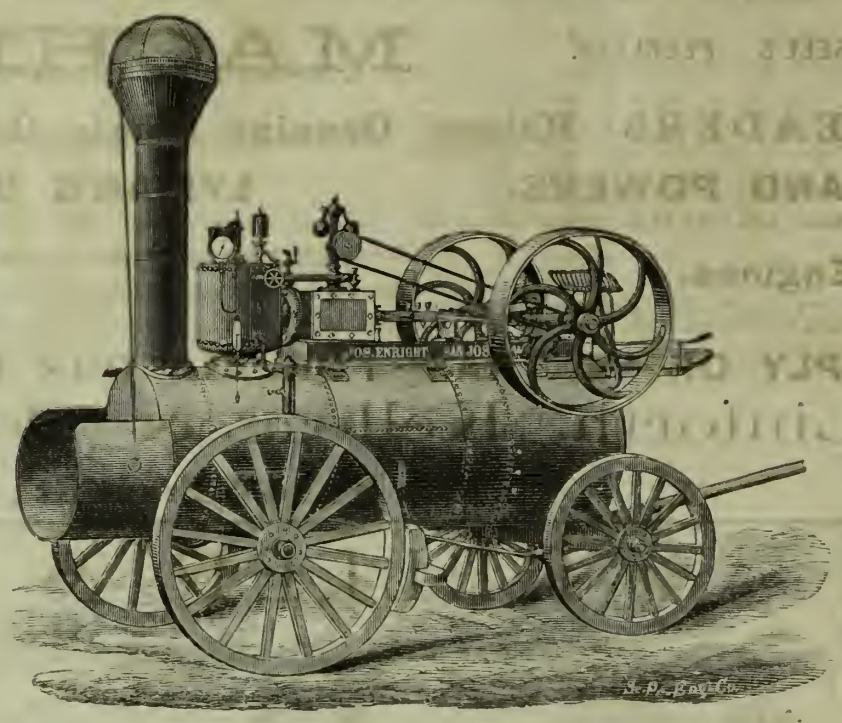
JOHN LUTTRELL MURPHY.

Attorney and Counsellor at Law,
NO. 535 CLAY STREET,
SAN FRANCISCO.

Dewey & Co. {224 Sansome St.} **Patent Agt's.**

ENRIGHT'S PATENT PORTABLE

WOOD AND STRAW BURNING ENGINES.



Patented July 20th and November 2d, 1875.

Burns Wood or Straw without change, and Coal by changing two plates. Took the Premium at the California State Fair, 1875, as the Best Straw Burner.

PIONEER BUILDER OF THE FIRST PORTABLE THRESHER ENGINE ON THE PACIFIC COAST, 1861

PATENTEE AND BUILDER OF THE

BEST PORTABLE STRAW OR WOOD BURNING THRESHER ENGINES, 1876.

Send for Testimonials and Price to

JOSEPH ENRIGHT, San Jose, Cal.

SHERIFF'S OFFICE, SACRAMENTO, Sept. 21st, 1875.

MR. J. ENRIGHT—*Dear Sir:* The Straw Burning Engine I bought of you, and which was used in Yolo county, has given us perfect satisfaction. It is everything you represented. We have had no difficulty in generating all the steam required, and the amount of straw consumed can hardly be missed. We find it much safer, on account of fire, than a wood burner. Many persons, both threshers and farmers, have come to see it run, and all express themselves highly pleased. The opinion of all was, that it is just what we need, being safe and economical. H. M. LARUE.

JOHN H. GOVE'S

CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $300.**

Manufactured and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

A Liberal Discount to the trade. For Sale by all Agricultural Dealers.

EXTRAS! | EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO

PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

M. Eyre, Napa, Cal.

High Class, THOROUGHBRED POULTRY. EMDEN GEESE, Pekin Ducks.

BRONZE TURKEYS. PRICE-LIST For 1876 Now Ready.

PIGEONS. RABBITS. FERRETS.

—ALSO—

THOROUGHBRED SOUTHDOWN SHEEP.

Address **M. EYRE, Napa, Cal.**
Please enclose stamp.

THOROUGHBRED SHEEP FOR SALE.

The undersigned offers for sale his entire herd, consisting of 150 head of Thoroughbred Spanish Merinos, Bucks and Ewes. The Sheep are good, and in good condition, and will he sold reasonable. For further particulars, enquire of

A. C. PAULSELL,
Stockton, Cal.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price-List on application.

***My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

CENTENNIAL EXPOSITION.

Visitors to the East can obtain advance accommodations (good until Nov. 10th), at all first-class hotels and boarding houses in Philadelphia. Full Board per week as low as $6 00, or $1 00 per day. Grangers, Freemasons, Temperance Societies and large bodies will be dealt with liberally. Parties taking our ticket can secure Hotel accommodations at New York, Saratoga and Long Branch without extra charge, by applying to

Centennial Boarding Agency Bureau,
of Philadelphia,
121 MONTGOMERY ST., - - SAN FRANCISCO.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,
v8-tf SAN FRANCISCO.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.
CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR.....PRESIDENT.
I. G. GARDNER.....VICE-PRESIDENT.
G. P. KELLOGG.....TREASURER
A. W. THOMPSON.....ATTORNEY
FERD. K. RULE.....SECRETARY

TRUSTEES:

J. D. BLANCHAR.....S. F
G. P. KELLOGG.....Salinas
I. G. GARDNER.....S. F
CHAS. LAIRD.....Salina
URIAH WOOD.....San Benito
A. B. NALLY.....Santa Rosa
A. W. THOMPSON.....S. F
A. D. LOGAN.....Colusa
I. C. STEELE.....San Mateo
G. W. COLBY.....Butte Co
A. WOLF.....Stockton
C. J. CRESSEY.....Oakland
J. C. MERRYFIELD.....Dixon
E. W. STEELE.....S. L. Obispo
O. S. ABBOTT.....Monterey
DR. T. FLINT.....Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property Insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, JUNE 10, 1876. [Number 24.

Effect of Water on Alfalfa.

We find in the agricultural column of the *Record-Union* an article concerning the behavior of alfalfa during and after an overflow, which contains propositions so novel to most minds that they will be at least interesting. We commend the following as calculated to draw out the experience of our readers on the points involved: "It is well known that of all the grasses or clovers used as a forage plant alfalfa is about the easiest killed by water. It will stand a considerable overflow in the winter, when the water is cold as well as the weather. Under such circumstances we have known alfalfa to remain under water for two or three weeks without any permanent injury—the plants seeming soon to recover when the water receded. If, however, an overflow occurs late in the spring, when the water is comparatively warm and the sun has begun to warm up the surface of the soil, a few days of overflow does great damage—the crown of the roots rotting off and the decay extending down the root in proportion to the length of time under water. Even then the damage is much less when the water runs off rapidly than when it runs off slowly. When the water stands at such a stage as just to cover the surface, and the sun warms it up as it will at this season of the year, an almost or quite total destruction of the crop may be looked for. It often happens, however, that when the water goes off the crop will appear to be totally ruined, when in fact it is only injured and may, by proper treatment, be restored to life, and in time regain all its previous strength and vigor. This is when the crown is impaired but the roots below are still sound. If, when this is found to be the condition, a sharp toothed drag, bearing a heavy weight, be put upon the field, opening up the surface of the soil, so as to let the air and sun in upon the roots, life will soon show itself and new crowns of fine clover will soon surmount the roots and but little damage will result. This dragging should be done while the soil is soft, so as to allow the teeth to penetrate as deep as possible. If, after dragging one way, a thin sowing of seed be thrown over the land, and then dragged the other way, with the removal of the old roots a good stand of new clover may be secured. The seed of alfalfa will keep an indefinite length of time in water without injury. When one or more crops of seed have been gathered from a field, by shelling out the surface becomes well covered with the shelled seed. So long as the clover is uninjured and keeps growing so as to shade the ground from the rays of the sun, this seed remains dormant or does not germinate, but let an overflow occur so as to kill the old roots, or partially to do so as above described, and the seed on the ground, being exposed to the quickening influence of the air and sun, will sprout and come forward rapidly. We have seen as fine a stand of alfalfa volunteering in this way as we ever saw from the most careful seeding on the best prepared soil. This lesson of nature gave us the idea of

Sowing the Seed in Water,

Either on land on which the crop has been fully or partially killed out by overflow—or on land that has been prepared by plowing and dragging to receive the seed before the water came up. Large areas of alfalfa have been killed out on all the river bottoms during the high waters of this season, and if the owners will, now that the waters are about to recede, act promptly and resow in the water, they will find it much better than waiting till another spring to replow and reseed. They should put on gum boots, and, wading through the water, sow the grain just as they would on prepared land. As the water recedes and the surface of the soil becomes warmed up by the sun and air, the seed, having been settled in the soil by the action of the water, will germinate, and the little tap roots will penetrate the ground and follow the water down, while the top will make a vigorous and rapid growth. It is true that weeds may also come up and contest for life with the young clover, but they may be set back by early mowing, so that the clover will get the start of them. On land sown in this way now, one or two crops of hay may be secured this season, and the meadows in the fall will be almost as good as though nothing had happened."

"Stump the World."

Although the luscious peach which we illustrate on this page is a native of New Jersey, it is Californian in its spirit and Centennial in its proud consciousness of superiority. It is Californian in its spirit, and if all that is written of the peach is true it has some title to the lofty connection which we have given it. We can "stump the world" on our fruit and the

THE "STUMP THE WORLD" PEACH.

Centennial can "stump the world" as an expression of national success. Arguing in a straight line from these premises the conclusion would be that our illustration is very timely.

We do not think "Stump the World" is a very pretty name for a peach, yet according to authorities it is a good peach nevertheless. Downing gives this description of it: "It is a large and showy peach and profitable for market growing. The fruit is very large, roundish, and a little oblong. The skin is creamy white with a bright red cheek. The suture is shallow and extends rather more than half around the peach. The flesh is white, jnicy and high flavored. Ripens about the middle of the peach season."

O. F. Library Association.—We have received the 21st annual report of the S. F. Odd Fellows' library association for the years '75 6. It contains the annual report of the president and librarian, with a list of the accessions to the library. It is an interesting publication, in

West Side Irrigation.

Messrs. Henry DeVeuve, Francis Williams and J. R. McDonald, appointed irrigation commissioners under the West Side Act, have issued a circular to the people of the district. It appears that the supplemental act instructed the commissioners to proceed forthwith and engage competent engineers and clerks to make a topographical survey of the district and report upon the feasibility of the enterprise. There was, however, one important omission, for the statute makes no provision as to the way in which these men are to be paid for the work. The commissioners say in their circular that they are ready to proceed with the work, but they can see no way in which to raise the necessary funds, except by voluntary subscription among those who will be benefited if the work proves a success. The circular closes as follows: "We propose to you that you unite with your neighbors in raising the money required. We propose to give to each subscriber a certificate showing the sum subscribed by him, the purpose to which it is to be applied, and pledging ourselves to obtain, if possible, from the next legislature an appropriation to repay the sum so advanced, in the, we think improbable event of the rejection of the tax, or the consequent or other failure on our part to carry into successful operation the provisions of the original act. As already stated, the wording of such certificate will, of course, be such as to exclude any personal liability on our part for the payment of any money subscribed. But we have not the slightest hesitation in stating to you that we entertain not the shadow of a doubt that in any event the money will be all refunded; for it cannot be that any legislature of California will ever refuse to make the appropriation we have agreed to ask for, in the face of the language of the supplemental act, which in express terms authorizes us to incur these expenses and to contract for their payment."

Cotton Grain Bags.—The Stockton *Independent* notices that J. D. Peters has introduced coarse cotton sacks to take the place of burlap sacks for grain, and describes them as "strong, very durable and cheaper than burlap sacks." Concerning some advantages possessed by cotton sacks, the *Record-Union* says: "A very little further advance will place the burlap bag at a cost greater than the same sized cotton bag can be made. Cotton bags have some advantages over bags made of burlaps, and it may not be out of the way for farmers to look into this subject for their own interest. The burlap cloth rots very quickly in the sun, and as much of the grain this season may have to lie exposed to the sun after sacking, before it can be moved to market, the cotton sacks, even at a little greater cost, may be preferable. Then again, cotton bags will do for flour while burlaps will not, and in this respect has an advantage. But we believe, as we have heretofore stated, that bagging material will be more plentiful and cheaper later in the season, when late orders have arrived, and would again suggest the storing of grain in bulk where it is not to be put into market at once. In this condition it will not shrink as much and the mice and rats will trouble it less."

Fox Seedling Pear.—In the latest "appendix" to Downing's standard work on fruit, we notice mention of a new seedling pear, by B S. Fox, of San Jose. The *Country Gentleman* says of this pear: "Among the pears are Fox's new seedling, which he has named Col. Wilder, and which is highly commended for its excellence. Judging from specimens examined last year, we should place it as high as any early winter pear we have ever seen, taking size, appearance and excellent quality into the account, and it will stand high, provided it does as well at the East as at San Jose, Cal., where these specimens were grown. We shall look with interest to see what its developments are here—possibly it may not be so good, but if it is, it will assume a high position"

American Berkshire Association.—The first volume of the American Berkshire Record will be issued soon, and will contain well authenticated pedigrees of the principal families of Berkshire swine. This work will be extensively patronized by the breeders of the United States, Canada and Great Britain. This volume will contain an exhaustive treatise on the origin of the Berkshire, and also the one hundred dollar prize essay on the origin, breeding and management of Berkshire swine, written expressly for the association, together with numerous cuts of some of the fine stock, to which the volume is devoted. For full information, blanks for pedigrees, the premium essay or Volume 1 of the Record, address A. M. Garland, Secretary, Springfield, Ill.

Insuring Growing Crops.—In the older countries of Europe it is no new feature of the insurance business to take risks on growing crops, but not until recently in California have farmers had an opportunity to secure their returns against loss by fire in the grain fields. We are therefore pleased to call attention to the advertisement in another column of two pioneer companies who have come foward to accommodate California farmers in this special insurance, viz: the Svea of Gothenburg, Sweden, and the French Insurance Corporation of Paris. The first office of this branch of insurance is located in Stockton, convenient to the great grain fields of the State. Charles W. Dohrmann, manager.

Alameda County Year Book.—William Halley of Oakland is preparing for publication "A Centennial Year Book" of Alameda county

CORRESPONDENCE.

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 4.

Day by day the exhibition grows in interest by the addition or uncovering of new attractions; but still the vast buildings present many gaps, with preparatory indications, however, that they are soon to be filled. Although yesterday closed the second week of the fair, I saw great numbers of cars—not less than 20 in all—in various portions of the grounds and buildings, pouring out boxes and bales almost without number. Eight carloads arrived overland only three days ago, filled with Australian goods; which arrival, I am told, will complete that exhibit. When the end of receiving will be, none can tell but those who have power to put an arbitrary end to the admission of any further exhibits. Spain has not yet opened more than one-half of her goods in either of the four principal buildings. France is also much behind. In fact none, with but few exceptions, are yet fully ready with all their exhibits.

It will be readily inferred from the above why I have not yet been able to give comparative descriptions. It is now clearly certain that every foot of the area will be occupied throughout all the 70 or more acres of floor space available for exhibition purposes. In my second letter I think I set down the space at about 62 acres. I am now satisfied it will measure nearer 75—the amount which is claimed in the official publication—and which exceeds the area limit of the largest European exhibit by about 19 acres! Well, this exhibition can't be repeated, with all its pomp and circumstance, for at least a century to come, and so the great American people may be pardoned for making the most of it. No European nation will be likely to attempt to rival it during the present century. It won't pay them—it won't pay us. The great American Centennial is too big a thing to handle with much financial success. In fact, its value and importance ought not—can not be recorded in dollars and cents. Still we may be pardoned for giving

A Brief Financial Exhibit.

The Board of Finance, in its official exhibit under date of November 10th, 1875, reports receipts as follows:

State of Pennsylvania	$1,000,000
City of Philadelphia	1,500,000
State of New Jersey	100,000
State of Connecticut	10,000
Miscellaneous donations	40,000
Stock subscriptions, about	2,200,000
Total	$4,850,000

The board, under its original organization, was authorized to issue stock to the extent of $10,000,000, but they estimated in their report of the above date, that $8,500,000 would cover the necessary expense up to the day of opening. To the amount of $4,850,000 already enumerated, Congress has since added $1,500,000, and perhaps it is fair to estimate the sales of stock and other contributions since last November at $750,000, which would give a total cash aggregate, at this time, of $7,000,000, leaving but one and a half millions to be realized from the profits of the exposition and the sale of property which can be disposed of after it is over. But whatever may be the result—whether the cost reaches eight and a half or ten millions, there is no donbt that all the bills will be paid, although the stockholders may not receive anything in return for their investment. Probably very few ever expected any returns—what they paid was from patriotic motives alone.

There has been no disposition manifested on the part of the commissioners to be niggardly in anything that would really tend to make the exhibition the success that it should reach; nor, so far as I can learn, has any "crookedness" been developed. The management, the contributors and the people at large will undonbtedly have the proud satisfaction, when all is over, to know that everything has been reached which could reasonably be expected to be realized from labor, skill and an honest expenditure of money. Everything has been done upon a liberal—nay, upon a grand scale, and the result, thus far, has been an undonbted surprise to the world, and a matter of national congratulations to the American people. Whatever may be the cost in dollars and cents, it may be set down as a not very extravagant price for the "universal Yankee nation" to pay for a grand Centennial "blow out." It won't come again in the next hundred years; will cost, even at the largest sum mentioned, less than two bits a piece for each man, woman and child in the land, aside from the traveling expenses and admission fees of those who enter into the fullest personal enjoyment of the occasion. Who cares, under the circumstances, for the paltry eight or ten millions which will be sunk in the enterprise?

Attendance and Transportation.

Since the rains to which I alluded in my last have been succeeded by clear and sunny skies, the streets and grounds and attendance have been wonderfully improved; and contrary to my surmise a week ago, I find that a substantial pavement exists beneath the mud which then covered the main street approach to the Centennial grounds; but for much of a distance no sidewalk is yet visible over that thoroughfare. Although the attendance has largely increased there is yet nothing of the rush which was anticipated by the average Philadelphian. As a consequence, ample hotel accommodations can still be found and at reasonable prices. A circular before me offers good accommodations at from $2.50 to $3.00 per day in a hotel within 200 yards of both the Pennsylvania railroad depot and the exhibition ground and where 4,000 guests can be accommodated, and the Grangers, at their encampment, are still accommodating all who come at even lower prices, hence no one need stay away from the Centennial on account of extravagant hotel prices.

It was estimated by the Centennial Commissioners that the paying visitors at the ground would reach an average of about 65,000 per day. This estimate is altogether too large, probably by about one-third, perhaps nearer one-half. Say the daily average will be 40,000. When that number is reduced by the very large attendance which Philadelphia chiefly furnishes, added to those who can reach the grounds and return to their homes every night by the railroads, it will readily be seen that the city with its special accommodations can easily accommodate all who come to stay. There will be no overcrowding except on a few special days, such as the Fourth of July and a few parade and society days.

At no previous world's fair have such extensive facilities been offered for the transportation of large numbers to and from the grounds, by street and other cars, as have been provided in Philadelphia. There are upwards of 250 passenger trains running in and out of the city every day, a large portion of which are timed for the special accommodation of visitors at the Fair. Excursion trains, morning and night, are thus run in almost every direction from 100 to 150 miles, at very low special rates. Passengers are put down at the grounds from New York in one hour and forty minutes, or at 9 A. M. (the opening hour), and taken back at 5 P. M., at which time the machinery stops and the exhibition virtually closes, although all are not necessarily out until 6 P. M. The grounds are not open in the evening at all.

A large number of new cars will be put upon the New York road in a few days, which will consist of an ordinary carriage platform car, fitted up with temporary seats and covered with a cloth roof and curtains to keep out the sand and rain. These cars will be run from New York to the grounds in about two hours—arriving at 9 A. M., and returning at 5 P. M.,—at $2 for the round trip. After the exhibition is over the cars will be covered and fitted up for regular passenger cars. The commissioners of the exposition, in connection with the various railroad officials, have displayed great energy and care in thus providing special transportation to meet the occasion, and to the credit of Philadelphia it should be known that her citizens have willingly seconded all such efforts, without manifesting any special disposition to make money out of visitors by rendering it inconvenient for them to make their trips to and from the city.

An Interesting Feature Lost.

One of the striking features connected with European international expositions, and especially so to citizens of this country, has been the brilliant uniforms of army and navy officers, the official robes of Eastern men of note, and the many-colored and multifarious forms and styles of garments worn by attendants and visitors from the different nationalities which have there assembled. A display of this character, somewhat limited in extent, was also expected at this exposition. Something of the kind was, indeed, seen on the "opening day," among the large number of Turks, Japanese, Chinese, Greeks, Egyptians, etc., who were in attendance, and the effect was duly appreciated and respected by the orderly people within the grounds. But no sooner had our curiously robed visitors reached the public streets of the city than the bad side of Young America began to show itself in a very indecorous manner, and one seldom exceeded by even the ruffian conduct of San Francisco gamins toward a newly arrived cargo of Chinese. These Centennial visitors were followed through the streets of the City of Brotherly Love, and for aught your correspondent knows, to the very doors of Independence hall, by crowds of idle boys and men, peered at with ill-mannered curiosity, saluted with rough epithets, and, in some instances, I am told, were actually assailed with ruffian violence. In one instance it is said the silken robes of a Chinese official were rudely torn from his person. The result of such unmannerly conduct has been to banish nearly all such display of individual nationalities from the grounds and the city, such persons, much to their inconvenience and dislike, having donned the conventional hat, coat, vest and trousers of the "universal Yankee nation." I have since noted only now and then a turban, supplemented with the flowing robe of some isolated Turk, more venturesome than most others of his countrymen.

The Foreign Commissioners and What they are About.

The foreign members of the Centennial Commission—the judges, experts, scientists, etc., are beginning to put in an appearance, and to accommodate them in their investigations the representatives of the press have been removed from their snug quarters and cosy rooms in the judges' hall to less convenient quarters in a large common room in a building erected for "the public comfort." The "press" of course, don't like the change; but they yield with as good a grace as possible to the convenience and possible needs of our foreign visitors and umpires. One-half of all the judges have been very properly selected from representative men of foreign nations, and the liberal sum of $1,000 has been appropriated to each judge, in payment of his expenses, and as some compensation for the time and labor which he will be expected to devote to the specialty to which he is assigned.

Count Della Sala, the Turkish Commissioner, arrived in New York on Saturday last, as did also, on the same steamer, Sir Sidney Waterlow, M. P., one of the British Commissioners, others having preceded them.

The Germans have some of their best scientists and technical experts on the ground, who will study up the exhibition thoroughly, in all its useful and economical aspects. Prof. Herman, of the polytechnical school at Aix-la-Chapelle, is here, specially commissioned to examine into the textile fabrics and machinery on exhibition. He proposes to make a thorough study of his subject, and his report will be looked for with much interest both here and in Europe.

Herr Renleanx, a director in the Royal polytechnic academy of Berlin, will report on motors or power generating machines. I infer that the "Keeley motor" will not come under his observation, as from careful inquiry I cannot learn that the proprietors have seen fit to honor the exposition with an exhibit of that wonderful invention—perhaps they have not yet secured their patents "all over the world."

Herr Wegler, a wine merchant of Coblentz, will examine, test and report upon our native wines, and on the culture of the vine in the United States. California will be particularly interested in this fact and what he may have to say. I fear our wine men have not made as full an exhibit as they might. Perhaps it is not yet too late to bring their wines to the notice of this European expert.

Herr Deinhard, a large German landholder and an experienced agriculturist, will make himself acquainted with the economical value of American agriculture and our general system of agricultural practice.

Even the German beer manufacturers are here by proxy, in the person of Herr Goldsohmidt, an extensive German brewer and expert. He comes to see if it is really a fact, as reported even by some Germans, that the American brewed beer cannot be excelled in quality by the real German article.

The French and English will also be fully represented by experts in every branch of industry, mechanical and agricultural, who will look sharp into all our Yankee "fixins," and show them up if they are not what is claimed for them. They will moreover be found to be tractable and honorable men, ready and willing to meet us on common ground and seek honestly for the great truths of science and art wherever they may be found in the grand exhibition of the world's skill which is here presented.

Sewing Machines—English and American.

The sewing machine companies are on hand as usual, and also, as usual, were all ready at the start; for which reason we are enabled to give them this early notice. We, of this country, have been taught that the sewing machine, of all other inventions, was purely American in its conception and origin; but in machinery hall we are told, by handbills, that its history is substantially as follows: "The sewing machine was invented by Thomas Saint, of London. It was seized upon and sold at enormously high prices by the combination monopoly; subsequently perfected and sold at prices within the reach of all, by Kimball & Morton; chief office and manufactory, Bishop street, Glasgow." On more particular enquiry, I learned further that it was in use in England more than 50 years before Elias Howe made his first model! This information rather staggered me; but as it was communicated by a very interesting young lady, I could not master sufficient courage to venture any doubt in regard to its correctness, so I left the history of the sewing machine to vindicate itself.

The sewing machine exhibit at the Centennial is, no doubt, by far the most perfect and complete that was ever made in any country. Seventeen different American companies are represented and four foreign ones—England, Scotland, Sweden and Brazil. The Scotch exhibitor, has already been named. Messrs. Newton, Wilson & Co., 144 High Holborn, London, make the finest and largest foreign exhibition. The machines in both the Scotch and English exhibits have all the novel improvements and accessories common to the American machine. The last named exhibit consists of some 50 machines, of 11 different grades and styles. One of these machines, "England's Queen," it is claimed, "presents some entirely new features, never before realized in a sewing machine." It can be instantly changed, "without stopping the machine," from the lock-stitch to the herring-bone stitch, and to overseaming. These changes are effected by simply turning a screw. The width and length of the stich are also regulated at pleasure. A machine is also shown for sewing ships' sails.

This party also shows a "pleater," which gathers up the fabric into box-pleats, in front of the needle. The pleats, as they pass under the needle, being fastened to their places by stitching. It is claimed that this is the only pleater in use. It was invented by one of the firm, and has been patented in this country as well as in Europe. The English machines are made quite as ornamental, if not more so than the American. They also appear to be more substantial.

It has been often said and printed that the English have never made a practical success of the manufacture of the sewing machine; but we have here proof to the contrary, for this company, according to their circulars, at least, are manufacturing large numbers daily, many of which, after the home consumption has been supplied, are sold in various parts of Europe, South America, Africa, India and the British colonies. They have three times enlarged their works to meet the increased demand for their machines, and are now making a fourth enlargement, which, when completed, will enable them to turn out 1,000 machines each week.

The Brazilian and Swedish machines are all very plain, but substantial in their make, and are not calculated for fancy work.

W. B. E.

Centennial Grounds, May 23d, 1876.

Sacramento River Vicinity.

[By our Journeyingman, B. W. C.—No. 1.]

The passenger on the Sacramento river steamer gets but a poor idea of the bordering lands and the beautiful residences that stand along the shores, hidden for the most part by the dense shade and fruit trees. A portion of Grand island was very disastrously deluged and the earnings of years of toil swept away hastily—yet the unfortunates summon new courage and some seek land on Andross, Brannan and Sherman islands, where the injury from flood was much less and good lands could be rented for summer planting in potatoes, beans, buckwheat, cabbage, etc. On these lands you are sure to see a crop of something growing. If not very carefully and constantly cultivated weeds will fully occupy the garden and field. Many parts, owing to the excessive wet, had the wheat killed out and now stand covered with flags and rushes, as if never cultivated.

Again I find the vexed question,

Does Wheat Ever Produce Cheat?

The fact made quite clear by testimony of many farmers is, they sowed good seed but through much wet their crop was all or nearly all cheat. Many farmers seem very sure that the wheat germ changes to cheat; others think the condition that kills the wheat causes the cheat to grow. Many farmers would be glad to know what our university teaches on this point. Some farmers go so far as to say that they have seen wheat and cheat growing on the same stalk. If any such specimens are ever produced this is a very favorable season for finding them, and it is to be hoped they will be carefully preserved for convincing the many who disbelieve these statements. One farmer sowed on dry ground wheat mixed with cheat, and never saw a crop more free from cheat. During last season I heard considerable said among farmers on both sides; and by two public speakers—one using to illustrate his theory that a proper education produced good results in character, as pure seed would only produce true wheat, not oats, barley or cheat. The other mentioned it to illustrate his superior knowledge and certainty on a point disbelieved by many. So much for cheat. Although some of the finest stands of wheat I ever saw are along the river, they are cutting most of it for hay, which with fruits and table vegetables comprise their leading products. Thousands of acres are rented mostly to Chinese, Portuguese and Italians, some at $20 per acre, the owner in many instances residing on a portion and having some supervision of how his trees shall be cultivated and pruned. When the back lands are reclaimed and cultivated we can ship vegetables to Europe and Asia.

Moral Progress.

Those owning the lands seem to be generally making improvements as if for a permanent home. Some of the most tasteful residences, built by first-class city mechanics, are taking the places of the old buildings. Postoffices are convenient and steamer landings almost for every house. Their schoolhouses are all neat and commodious, but, as yet, churches or religions teaching somewhat lacking, yet occasionally we find a well conducted Sunday school and occasional preaching.

Emmaton, on Sherman island, was about organizing a Sunday school to balance their three saloons. Isleton, on Andross island, also moving in a similar work, and can also show a roll call of about 40 Good Templars, and adding more each meeting. Brannan island, with a small American population, has a very well conducted Sabbath school, that has for some years been sustained mainly by the efficient earnestness of one female. That school is a fitting illustration of what can be and ought to be done in thousands of school districts and neighborhoods now having no moral teaching.

If the perpetuity of our government does depend in any degree on the good, sound morality of the masses—as all profess to believe it does—then is the suggestion here made one of more than trivial importance and worthy of a present and future consideration.

Isleton, Sacramento county, May 26th.

SHEEP AND WOOL.

The American Merino in Western New York.

Having always supposed that Vermont was headquarters for fine wool sheep, we gave a grain of allowance to the claim of this locality for precedence and began searching records and oomparing figures.

We find that several breeders here starled twenty-five years ago with some of the best Vermont stock and have been faithfully improving their flocks ever since. It is now several years since Vermont sheep-men have ventured to compete in New York fairs and the statement on page 88 of the "Practical Shepherd" has been thoroughly proved, viz: "Removed from the pastures of New England, of north-eastern, eastern or southern New York—grazing lands proper—to the rich clover fields of western New York, Ohio, etc., the merino increases considerably, both in size and weight of wool, and continues equally healthy."

When this was written Hammond's Sweepstakes was the model sheep and the excitement was at the very highest. Comparing him with one of the sheep shown in the table below we find his heaviest fleece and his gross weight are only three-fourths as great as that of the two-year-old Bonanza. This latter is not far ahead of many others in weight of fleece or of caroass. Several have sheared 35 pounds of one year's growth and while Freak of Nature reached the latter weight of fleece he was fifteen pounds heavier in carcass than Bonanza.

We think that the advance in style has been greater than in weight, as our readers who have the "Practioal Shepherd" can judge by comparison whenever we have pleasure of publishing the pictures of Triumph, Captain Jack, Genesee, Volunteer, Middy's Boy, or many others equally good that might be named. From the facts within our reach we tbink we may safely claim for our best breeders that they are

Thirty-three per cent. beyond Hammond's flock of 1863.

There are two other considerations that have had an important bearing on this advance. Vermont breeders have had a fashion of breeding for fineness of staple and then for shearing the greatest percentage of wool to weight of carcass. In deference to the latter style we see Hammond named a favorite prize ram "Twenty-one Per Cent." To take prizes in this line they feed high till within a month of shearing time and when the wool is grown starve down the weight of carcass. Both these fashions have been to the sacrifice of constitution, the most important point for a breeder to consider, as the very foundation of excellence. On the other hand the fashion here has been to breed for constitution, weight and evenness of fleece, weight of carcass and the power of transmitting these qualities. Breeders are generally well informed as to principles involved and to the standard of excellence sought for. Their families of sheep are almost all descended from the Infantados and Paulars of Spain. The names and labors of Atwood, Hammond, Robinson and other famous breeders of Vermont and Connecticut are familiar to all of them.

The Batavia Show.

On April 27th began the State sheep show at Batavia, at which the leading breeders came together to compare results, attend to business of general interest and contend for premiums of nominal value.

No great noise was made nor was any crowd collected. Those who came were all interested in sheep, butit was said to be the "The finest show of sheep ever exhibited together in this oountry." The Merinos were classed as American, Delaine and Fine; Cotswolds, Lincolns and Leicesters were represented. Resolutions were sent to Congress protesting against proposed reduction of tariff on wool, and the importance of a flock register something after the style of the "American Herd Book" was considered. They propose to publish each a pedigree and brief history of his flock in *Rural Home* and to illustrate these articles by woodouts of leading sheep in their flocks. These articles are to be revised by a committee of breeders before publication and it is designed to publish them in book form when complete. They are as careful abont the accuracy of their pictures as of their pedigrees, and the general confidence in this accuracy is such that breeders hundreds of miles away have frequently bought sheep at very high prices on the strength of description, pedigree and picture. Mr. J. M. Norton, the favorite artist in this line, is kept busy a great part of his time upon Merino sheep.

Sheep Shearing.

On May 3d the sheep breeders of Ontario and Livingston counties met at Honeoye. It was our pleasure to attend this, and it seemed the best calculated to advance the interest represented of any show that we ever attended. On the first day entries were made and the sheep carefully examined when in full fleece. On the next morning shearing began in earnest. Fleeces and carcasses were weighed and the staple measured and examined in presence of a committee, and an official record kept. Methods of feeding; results of particular crosses; qualities of different strains of breed; questions relating to the history of the blood; the policy of such eminent breeders as Hammond and Atwood, etc., yon might hear discussed by groups of farmers who were at the same time passing from one pen to another to illustrate points under discussion.

The Peculiarities in the Management of this Show

Were these: No premiums were offered, hence the jealousy often engendered was avoided, and many were more willing to exhibit. The public character was such as to establish an official record and avoid the difficulty of establishing the weight of fleece which has caused so much skepticism regarding the fleece of Mrs. Blacow's famous sheep. The expense was trifling, for the farmers brought their sheep and feed in their wagons, and occupied the meeting house sheds, both for horses and for sheep pens. Many of the fleeces were sent to the factory to be cleaned, thus giving a fair representation to those who claim to be breeding purely in the interest of the manufacturer, with prime reference in the fleece to amount and quality of cleansed wool.

Results of Crossing wilh Mexican Sheep.

Mr. J. W. Taylor, who has been engaged a great part of the time for 18 years past in buying stock sheep for the Texas market, says that the result of the first experiment satisfied him as to the importance of the business. From his description of the average Mexican sheep of Texas at that time, we infer that they were about like the Mexican sheep of California. They sheared one to two pounds of unwashed wool, which was almost all grown upon the back and sides, and was a very near approach to hair. As the result of the first cross from good Merino bucks there were several of the fleeces from the yearling wethers weighing seven pounds each. The attention of breeders is especially directed to the purpose of improving the quality of the common flocks of the country, with a special view to the wants of large flocks running in dry countries like Texas, and liable at some seasons of the year to suffer from short feed. Hence they make their first point constitution and breed beyond what would be their ideal standard, for wrinkles, yolk, etc., as it is only in this way that inferior flocks can be readily bred up to a desirable standard. During 1875 500 stock rams were sold (most of them to Texas) from the town of Richmond alone. It is supposed that a larger number will go this year,

The record of shearing given below was copied from the official entries by the courtesy of the Secretary, D. O. Pierpont. The results would not average as well as the shearing of some particular breeders. We attended a private shearing at Ray Bros.', where all the sheep shorn before we left, including those shorn at the fair, were 14, who averaged 19½ pounds per fleece. Several of these were yearling ewes and only two were grown rams. Mr. McMillan reported a shearing of 13 yearling ewes whose fleeces averaged over 16 pounds each.

From the table below we have computed the average weight of fleece and of sheep clothed with one years' fleece for all animals shorn who were more than a year old. An allowance of ono and one-half to two pounds per sheep must be made for the shrinkage in shearing.

RAMS.

Average weight of 365 days' fleece.......... 27 lbs ½ oz
Average wt. of carcass and 365 days' fl'ce... 165 " 4 "

EWES.

Average weight of 365 days' fleece.......... 18 lbs 9 oz
Average wt. of carcass and 365 days' fl'ce...108 " 0 "

Official Record of Honeoye Sheep Shearing.

Name of Owner.	Age of Sheep.	Age of Fleece.	W'ht of Shorn Carcass.	Weight of Fleece.		Length of Staple.
	Y'rs	D'ys	Lbs.	Lbs.	Oz.	In.
H K Francis	1	411	97	14	9½	3⅛
A Ashley	3	330	145	23	7	2
A B Norton	1	365	113	15	6	2½
L L Pierpont	2	355	137½	28	10	2½
Ray Bros and Ashley	4	359	154	26	13	2⅛
H D Adams	2	359	129½	24	6½	1¾
A Bennett	5	363	145	28	7½	2½
J C Short	2	359	115	25	2	2¼
Gideon Pitts	1	404	100	17	6	3
G N Swan	2	359	115	23	14	2
Frank Wales	3	368	147½	21	7½	2½
J C Short	3	359	124½	23	9	2½
Ray Bros and Brunson & Mariner	3	359	140	26	10	3
Levi Noble	4	345	.....	25	7½	2½
Brunson & Mariner	1	420	.....	15	14½	2½
Dunton Bros	2	384	145½	36	0	2¼
Ray Bros	2	360	101	17	15	2½
F Wales	1	369	48	13	0	3
Ray Bros	1	357	102	19	5½	2½
Geo Ashley	2	364	80	16	12½	2½
Gideon Pitts	2	359	115	18	7	2¾
Ray Bros	2	357	103	18	3½	2¼
Dunton Bros	2	350	93	18	8½	2½
Dunton Bros	2	361	60	19	8	2¾
Brunson & Mariner	1	425	.....	15	14½	2½
Ray Bros	1	420	69½	17	2	2½
Dunton Bros	2	361	83	17	0	3
Geo Ashley	4	365	87	17	8½	3¼
Dunton Bros	2	355	91	18	1	3
Perez Pitts	2	358	71	14	15	2½
Geo Ashley	2	356	80	17	9	2½
Frank Wales	1	369	38	11	3	3½
Ray Bros	1	375	75	15	14½	3⅛
Dunton Bros	2	361	79	19	13	3
Ray Bros	4	357	103	22	1	2¼
J C Short	3	359	85	19	1½	2¼

The last in the list of the rams was Bonanza, for whom the championship of heavy fleeces is claimed. Allowing for difference in age of fleece it would still lack three and one-half pounds of the famous California fleece, but as this was free from burs and from more than an ordinary amount of dirt it may be that the claim is fairly held. Sheep men here protest against want of suitable care on the part of those who had charge of the fleece of Mrs. Blacow's famous sheep.

Can California Improve Upon These Sheep?

We believe that alfalfa is as much better feed for sheep than any in New York as the feed there is ahead of Vermont, and that we have the facilities for another long stride in advance. We reason thus from the fact of our climate being such as to give good feed and keep sheep in growing condition during a greater part of the year, and from the experience of Mr. N. Wykoff, of Woodland, and others who have practiced soiling sheep with alfalfa, frequently moving their corrals to fresh stamping ground. We gave some particulars of Mr. Wykoff's experience to the public in 1873, and presume that he could now give further light upon the subject. FRANK S. CHAPIN.

Vacaville, Cal.

POULTRY YARD.

M. EYRE, JR., Napa, Cal., Corresponding Editor of this Department.

Dead Ducks.

EDITORS PRESS:—I want some more information from Mr. Eyre. Some of my young ducks get sick and die. The only symptoms are a difficulty in breathing. I have had good luck with ducks, having lost but 22 out of 350.—*, Pajaro, Cal.

"A difficulty in breathing," is hardly a sufficient description of a disease. There are several causes which produce labored breathing in young ducks. I have not lost a single young duck by disease, and with strong, healthy stock there should be absolutely no disease among ducks, except such as must attack an occasional subject among any class of animals.

In PRESS of March 11th, 1876, I gave directions for "Raising Ducks." I judge the "difficulty in breathing" comes from cold. The only danger I anticipate in rearing ducks is from cold and wet, or from feeding *grain* too soon. They should have in their pen only sufficient water to *drink*, and none to swim in. When a month old I drive mine to the water on a sunny afternoon and allow them to remain 10 or 15 minutes. After this they are always driven up in the evening early enough to become thoroughly dry before sundown. If their feathers or down become wet and do not dry before night they catch cold and wheeze and show "difficulty in breathing." Sometimes these symptoms will result from confinement at night in too close or ill-ventilated quarters. If fed grain when too young they show a *froth* in the corner of the eye, become dull and sometimes wheeze, or show a "difficulty in breathing." If the large head louse is allowed to remain on their heads instead of being killed by the ointment I recommend, or otherwise taken off, they often commence to run at the nose, become dull and a difficulty in breathing results then also. I judge that the losses of this correspondent have resulted from one of the causes I have mentioned. They should all be voided. E.

THE SWINE YARD.

The Profit in Pigs.

Thomas Cross writes to the *Willamette Farmer* some points for success in swine growing and the possible profits: I take the position that feed and care makes the improvement in blood, and the best blood of to-day is capable of improvement and ought to be improved, which must be done by feed and good management. The best breeds of hogs will in two or three years, under some men's care, so deteriorate that they are hardly recognizable. I say to all, do not start with improved breeds unless you intend using good care and feeding well. Twenty years ago I sold to a farmer some of my best sows, and about three years afterwards, he not being at home, I looked around his place and found plenty of hogs, but not any that looked like the Cross hog. When he afterwards wanted to make another purchase of me, I declined to sell and plainly told him that any scrubby hog was good enough for the care he gave, and to-day, or any time, any one who will call at my farm near town will be convinced by seeing some of my best imported blood that have been let out for two years and lately returned. They have the color of Berkshires, but that is all. One sow having 8 pigs I got when the pigs were one week old. Those of my own raising are eating with them out of the same trough and the difference is too perceptible for any one to be mistaken. They are badly degenerated. To improve and breed properly, your male and female must have particular attention and be in proper condition.

But the question is, will it pay? Now this is a question every one must decide for himself. Hon. J. W. Nesmith tells me that fattening hogs pays him better than to sell his grain; he fattens from 100 to 150 each year and when visiting his farm I found that he was attending to them systematically, making a business of it; his spring pigs are to weigh 200 pounds, and he says he is going to increase to 200 pigs to be fattened annually. I wish there were a few more like him. Mr. Benjamin Holt, of Harrisburg, told me he had made no money from his farm since he quit the hog business, and he usually lets me have 100 head at a time, and he says he now intends raising and fattening 200 pigs. Those are men of experience.

I now copy a experiment made by R. Morrell, Harrisburg, Ill., who says:

"On the second day of last December I weighed 26 hogs, the aggregate weight being 4,960 lbs., or an average of 192½ lbs. per head, they were then fed six weeks on corn meal. the first week they consumed 29¼ bush. and gained 472 lbs; second week they were fed 29¼ bush. and gained 372 lbs.; third week they were fed 31½ bush. and gained 486 lbs.; they were then fed two weeks, consuming 71½ bush. and gained 495 lbs.; the sixth week they were fed 29¼ bush. and gained 392 lbs.; their average gain was 14 lbs. to the bushel of meal, or four lbs. of meal to the pound of pork. They were then sold for $6.35 per cwt., which paid me 88 6-10 cents per bush. for corn. The unevenness of their gain was owing to cold weather part of the time. My experience is that ground corn will make one-fourth more pork to the bushel when fed in a floored pen, than when when fed in the ear, or whole state. This experiment was the result of careful feeding and watering three times a day in a good, warm, tight room."

Mr. Editor, if 4 lbs. of corn meal makes a pound of pork, wheat properly fed and a pig running to grass will make more. Yet this would make 800 lbs. of wheat for 200 lbs. of pork, which will bring $12 for 13⅓ bush. of wheat, which gives 90 cts. per bush. in the sheaf. Now I do not claim his much, but give in your time and give your attention to your pigs and I think you can make 75 cents per bush. in the field or in the sheaf. Those living some distance from market cannot do as well as to put their wheat into pork.

HORTICULTURE.

Borers.

EDITORS PRESS:—As the season for borers is approaching, it may prove advantageous to some of your subscribers to know my experience with these voracious little creatures. The fly deposits its eggs in the night on the bark of the young tree, at or near the surface of the ground. In the Mississippi valley the eggs are deposited from about the middle of June till about the middle of July; and I am informed that in California the deposits are mostly made in July.

The eggs hatch in September, when the little creatures immediately commence boring into and through the bark, and their whereabouts may soon be known by the fine dust which is thrown out of their hole as they proceed. Their depredations are confined the first season to the bark, devouring the inner part of it, sometimes completely girdling the tree, causing its death the first year. The second year they require more substantial food, hence they leave the bark and commence eating the wood, and when the tree dies, or is broken by the wind, if you examine the break the borer you'll find.

Remedy.

Many of the egg nests may be removed and the eggs destroyed by washing that part of the tree infested by them in strong soapsuds two or three times during the egg-depositing season. Then, any convenient time during the autumn, form a small, basin-like cavity of the soil around the base of the tree stem, and fill it with boiling water. It is sure death to all the borers, whether of the first or second year's operations, and will not injure the tree. OBRA GARVIN.

Kingsburg, Fresno Co., May 27th.

STOCK BREEDERS.

Treatment for Blindness.

EDITORS PRESS:—It may be of great importance to many of your readers to know how to cure blindness of stock; you will therefore allow me to make a few remarks. Horses and cattle, more particularly little calves, are very often afflicted with sore eyes, for which I have found no exact cause. The eyelids become swollen and inflamed, the tears are constantly running, and if not attended to in time, the beast will become blind. I call it the "California eye disease," as I have no other name for it and have found it nowhere else. I wash the eyes with a solution of tobacco boiled in water, making it as strong as possible, from one to three times a day, according to long standing of the case. Having no tobacco on hand strong salt water will do good service. I have cured many a poor brute. The other day a horse came under my care which was entirely blind, but by careful attention and light food I saved one eye, the skin over the other being so thick that it can only be removed by the surgical knife. N.

Santa Clara, May 29th.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

COPIES OF THE CONSTITUTION AND BY-LAWS of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. OF H.—Subscribers who pay fully one year in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, besides other premiums. See our premium list in another column.

Notes Among the Granges.

[By Bro. J. D. BLANCHAR.]

EDITORS PRESS:—As I have lately made quite an extended list of visits among the Granges I send you a few hasty notes concerning them which may be of interest:

Linden Grange.

Left San Francisco at 8 A. M., by W. P. R. R. Being met at Stockton by Bro. Wasley we proceeded in company to Linden to meet with the Grange in the evening as per appointment. I was well pleased with the visit, for we found the members not only earnest workers but fully appreciating the benefits to be derived from the organization, social, moral, mental, physical and financial. In union there is strength, and by co-operation they will prove to the disaffected skeptics that we are sure to reap a rich harvest in due course of time. A more pleasant evening it has not been my fortune to spend at a Grange. I was hospitably entertained at the comfortable home of Bro. Wasley.

Riding with Bro. Overhiser to Stockton we met with the Stockton Grange there in the afternoon, May 7th. Going to Modesto by evening train we spent Monday surveying the county seat and its surroundings, and agree with Bro. Spencer that it has a bright future.

Merced.

On the evening of May 9th we were in Merced, and pleased at meeting many old friends there, who greeted us at the Grange, where we spent the afternoon in discussing matters of interest to all good Patrons. Bro. Overhiser is the right man in the right place as orator of the day on a business proposition. The only trouble was the day was too short for everybody wanted to hear more. We hope to meet them again after harvest, for they are alive to their interest and understand what it is.

After a day at Visalia, seeing the rich harvest that awaits the husbandman, we returned to Stockton, and on the 12th left Stockton for Chico, where we arrived at 8 o'clock P. M., and were met at the depot by Bro. Hallett and taken to the Union hotel, where we met a large number of old '49 friends and passed a pleasant evening in social reunion. In the morning Bro. Hallett gave us a ride of 18 miles to meet

Plaza Grange,

on Stony creek, Colusa county. Nearly the entire distance was through grain fields of wheat and barley that will yield from 20 to 60 bushels per acre. Bro. Kendricks, Worthy Master of Plaza Grange, was at the hall when we arrived and bade us welcome. But few of the members had yet arrived, as the most of them live a long distance from the hall. The Secretary lives 15 miles off and others still further. As they came pouring in from all directions we recognized many familiar faces. Among them were A. D Logan, who lives 30 miles distant, J. R. Totman Worthy Master, and Bro. Green, of Colusa Grange, who had traveled 40 miles, Bro. Nelson W. M. of Nelson Grange, Bro. Clark, W. M., of Nord Grange, Bros. Van Wert, McIntosh and others from neighboring Granges. Men, women and children came pouring in until they numbered something over 100, of earnest workers in the good cause of reform. The Grange was opened in due form and Bro. Overhiser and your humble servant gave them the benefit of such information as we possessed in regard to present success and future prospect of the various business organizations in which they are all interested. Afterwards we adjourned to the main hall below, where, with the invited guests (who by the way were getting a little impatient at our protracted session as none but Patrons were admitted in the Grange), we partook of the excellent feast provided by the worthy exemplary sisters of Plaza Grange, after which a public installation of the officers by Bro. Hallett, assisted by Bro. Overhiser, and this was followed by an able address from Bro. Hallett, prepared for the occasion. It was a day spent pleasantly and I trust profitably to all.

After two days at Chico, where we met many Patrons who appreciate the benefits to be derived from our association, we left for

Yuba City.

Bros. Walton and Ohleyer kindly tendered their services to give us a drive through the rich grain fields of Sutter, which was readily accepted by Bro Overhiser, and his report was that there was the best and most thoroughly practical farming done there of any portion of the State we had visited. I spent the time very pleasantly and profitably with Bro. Ohleyer in the Farmers' Co-operative warehouse, which, under the management of Bro. Ohleyer, has proved a financial success to the stockholders and of great benefit to the farmers of that section.

At the appointed hour we repaired to the hall. Notwithstanding they were right in the midst of haying as well as preparing for their large harvest, there was a large attendance of the members of Yuba City Grange, as well as quite a number from adjoining Granges. Among these was Bro. Spillman, Worthy Master of North Butte Grange, who is noted far and near for his devotion and zeal in the work for the good of the Order. He is possessed of a high order of intellect and large experience, and his influence is of great value to Patrons. Suffice it to say that the meeting was one of the best we had on our trip. I forgot to mention Bro. A. D. Logan put in his appearance, having traveled 60 miles to meet us there.

Good Farming.

Bro. Overhiser went home with Bro. Walton, and from him learned many valuable lessons in scientific, practical and profitable farming, while I spent the night with Bro. Ohleyer and visited Bro Hardy and availed myself of like benefits. Profiting from their experience I will try at some future time to give your readers an idea of their style of farming which never fails to produce a good harvest. One of the cardinal principles of our Order is education. Experience being one of our teachers we should not withhold the information, but interchange those valuable lessons, and all will profit by it.

In company with Bro. Logan we went to Colusa to meet with

Colusa County Grangers

On the 18th. There, as elsewhere, we met the earnest workers in the field all ready for an interchange of views upon the important issues of the day. Among the visiting members was Bro. Peterson, who took an active part in the discussions, and from the able manner in which he handled the various subjects convinced all that he keeps himself well posted, and finds it profitable to do so.

One of the pleasing exercises of the day was the installing of the sister elected as Overseer of the Grange, by Bro. Overhiser, it being the first meeting she had been able to attend since her election. Also the conferring of the second and third degrees upon Sister Totman, wife of the Worthy Master.

A collation was one of the enjoyable features of the day. At Colusa we found one of the largest grain warehouses owned and controlled by the farmers under the management of Bro. Murdock, and a farmers' agricultural warehouse under the management of Bro. Jones, both doing a good business.

On the 19th we went by steamer to Knight's Landing and thence by rail to

Woodland,

And spent the night with Bro. Blowers, the great grape grower and raisin maker of California. Owing to Bro. Blowers' invitation not having been received by me, I had not made an appointment for that place and no meeting had been called; but Bro Blowers started out early in the morning and notified as many as he could, calling a meeting at one o'clock. We got together in the hall and had a little talk over matters of interest to all Patrons.

After spending a night with Bro. Rhoades, Worthy Master of Capay Grange, and then going to Stockton, I met Bro. Wolf. We went to his hospitable home and there I found Sister B. and Master Read to welcome me. Passing a night with Bro. Overhiser at Oak Home farm, I rode next day to

Castoria Hall,

To meet our last appointment for this trip. There we were joined by Worthy Master Webster and Bro. Inman, who took the lead in the discussions of the day.

Home Again.

I arrived in San Francisco May 23d, having labored industriously in the field for 19 days, not a day passed without having an interchange of views with more or less of the Patrons and meeting at nine meetings during the time, some of them a large attendance.

Reflections.

Brothers and sisters, when croakers tell you the Grange element is dying out you can rest assured they are only asserting what they wish was true, for to-day we are really stronger to effect and accomplish the purposes of the Order than ever before.

In the rapid growth of our Order in its first introduction in our State, so little was understood of its aims and objects that many thought they saw in this rapidly growing movement an easy way to office and joined for that purpose; but finding no sympathy or geniality they have done what that class of citizens generally do. Again, others joined alone for selfish purposes, thinking they saw an easy way to make money. The principles of the Order disrobes its true members of sordid selfishness, and they labor upon the principle that what is to the benefit of all inures to the benefit of each. That class of citizens have been a detriment to the Order, and are now among the leading croakers. They cling to the Order and curse it with their membership.

Others whose motives and intentions are good, seem perfectly willing that others should do all the work and bear the burden of the Grange, reserving the right to grumble and even going so far as to slander the workers if they do not go just as Mr. Growler thinks they should. This is a crime against the Order.

Notwithstanding these and numerous other causes have been a serious drawback to our progress, our future looks more encouraging than at any previous time since the organization of the Grange. The present paramount work of the Order must be an educational one, yet it is a recognized fact that the membership may derive much pecuniary benefit from co-operation in a business way.

I find that the greater portion of our members admit that to the farmer the Grange affords a school in which to cultivate the mental faculties, to develop the long dormant energies of the mind, so as to lighten their physical labors and prove them more remunerative. I find everywhere members alive to the fact that they have a duty to perform, and will exert their energies to make our Order what it was designed to be, a means of improving the agriculturist socially, morally, mentally, physically and financially; that they may attain to the most honorable positions in the walks and duties of life, and that the farmer will be a power in the land. They have resolved to do their duty, to prove faithful to their obligations and assume all responsibilities devolving upon them as Patrons.

It is the duty of every member to meet with the Grange, to give free interchange of thought, to assist in devising ways and means for the spread of intelligence, which is in harmony with the spirit of the age, the development of man's higher and better nature.

There is no calling to-day in which brains is more necessary than farming, and it is our duty to see that the rising generation have the advantages of a practical and scientific education at the institutions we help to support.

There is an impression among commercial circles that the Grange movement is a crusade against the business men of the country, when, in fact, one of the purposes of the Order is to correct abuses, give healthy tone and build up every legitimate business of the country, as well as advance the agricultural interests. Let us all try to make the Grange an oasis in life's duties, that we may recall the days spent in the Grange with pleasure. This is the wish of one who has been among you.

A Field for Grange Work.

EDITORS PRESS:—Experience shows us, as time progresses, that the Granger movement was not inaugurated one day too soon. Evidences meet us at all the social gatherings, picnics and public entertainments, that the farmer is deficient in social experience. Not that the heart or affections are less capable of the higher and finer amenities of life than those cultured under more favorable circumstances; but it is the "know how"—how to put them in the best possible shape for exercise. This discrepancy is painfully apparent when the management of a public gathering is entirely in their keeping. The second attempt is always an improvement on the first. As time progresses all angularities and deficiencies will be removed, when they meet at basket picnics or any other social gathering. And instead of discountenancing these reunions because they do not come up to the standard of modern requirements, they should be encouraged as educatory; bringing the powers of mind to occupy channels of thought altogether new, but necessary as being recreative in their tendencies.

The more I mingle with and understand this Granger movement, the more I am convinced of its necessity, not merely as a social focus for intercourse, but for the intellectual benefit which is derived from its observance. In every association for the amelioration of man's condition there is more or less of a formula to be gone through. Some members pay more attention to this form than the spirit taught. There is always a something which should comprehend the central idea of the institution above all form, which is too often lost sight of, and form becomes the substance.

The central idea of the Granger movement seems to be comprehended in three words—educational, social and protective. Each of these principles may be enlarged and improved upon indefinitely. As time revolves, improvements will so take place that a want of either proposition will not be questioned in the enlargement of knowledge on all questions and subjects which may be brought forward. This is a wide field for speculation and I feel my powers of thought insufficient for its elucidation. JOHN TAYLOR.

Mount Pleasant, June 3d.

GRANGERS' BUSINESS ASSOCIATION.—At a meeting of the Board of Directors, June 6th, the resignation of T. J. Brooke, manager, tendered some months ago, was accepted. The President, Daniel Inman, of Livermore, will officiate as manager in the future. All communications should hereafter be addressed to Daniel Inman, President and Manager, No. 106 Davis street, San Francisco.

IN MEMORIAM.—We receive from S. W. Millard, Secretary of Sunol Grange, a record of the action taken by the Grange, expressing the regret at the death of two esteemed sisters, Mrs. M. E. Cooper, who died May 12th, and Mrs. Lisetta Neusbaumer, who died May 25th. The Grange has lost two worthy and efficient members, and the community, ladies of the highest social attainments.

Golden Gate Grange.

This Grange held its first regular meeting since organizing on Tuesday evening of this week. A number of visiting brothers, including some members who had just attended a meeting of the Board of Directors of the Grangers' Business Association, were present. Bro. I. C. Steele made a very effective speech on the good of the Order, giving interesting facts about the business interests of the Order; testifying to the soundness and fair prospects of the Grangers' Business Association. Bros. A. W. Thompson, W. L. Overhiser, T. H. Merry and others made appropriate addresses, illustrating what good works should be accomplished by this and other Granges. The following address, representing the sentiment of the meeting, was unanimously adopted:

Address and Invitation to Members of Other Granges:

The Patrons who are engaged on the business of our Order and compelled to reside at San Francisco, have keenly felt their deprivation of the privilege of attending Grange meetings; the pure enjoyment of social intercourse with their brethren becomes very appreciable when it can no more be had, and as "blessings brighten when they take their flight," so we have found how good a thing we lose in missing the meetings of the Grange.

The longer we have endured this deprivation the more grievous it has become, until we have felt compelled to seek a remedy in the establishment of a Grange here, and this, under the permission of the Worthy Master of the State Grange, we have done. Our place of meeting is at Huddy's hall, 909½ Market street, south side, between Fifth and Sixth streets, where our meetings will be held on Tuesday evening of each week, and to our brethren everywhere we extend an invitation to join us at all times when their presence in the city may permit.

We sincerely hope that our sisters and brothers may accept this invitation, favor us often and in goodly numbers with their company, bringing from the country life such freshening influences as may make our symbolical farm a true Grange where faith, hope and charity abound, and aid us in making it one pure, green spot—an oasis in the desert of city life at San Francisco.

The belief that, for the pleasure of your society, we may be able to reciprocate, in some degree, by conferring benefits on you, has been no small incentive to us in this enterprise. At the impromptu meeting at "Redmen's hall," after the last election of Directors of the Business Association, the unanimous wish of the Patrons there assembled was that this thing should be done, and it was urged that by having a Grange here opportunities would occur for social converse and discussions on business matters in which not only counsel with many might be had, but where the sisters would be with us and by their finer perceptions of the right, show us the cause which justice as well as wisdom may direct. And thus, by the inestimable benefit of their presence and voice in our deliberations, bring into the conduct of our affairs the great, distinctive feature of the Grange, woman's influence for good. Moreover, the officers of the State Grange will be with us and such of the members of the Order as need instruction, aid or suggestions in the conduct of their Granges will have a proper and natural place where they may ask for its reception. For these, to us, good reasons we have formed this Grange; selfishly, that we may have the pleasure of your company and enjoy the dear privilege of being with our fellow Patrons; in kindness, that we may show our love to you, and in the earnest hope that our work may be a source of good to all around us; that our pride of being in your fellowship may keep us walking in the paths of righteousness, so that we may remain in good repute among men and by our lives and conduct show how excellent a thing it is to be Patrons of Husbandry. J. D. BLANCHAR, Master.

FRED K. RULE, Secretary.

THE WAREHOUSE AND WHARF.—The Construction Committee of the Grangers' Business Association have agreed with Mr. Lloyd Ryder, of Benicia, upon terms of a contract for the immediate erection of two warehouses, 60 by 100 feet, and have ordered the material, which will probably be here so that the work will commence the coming week. The loading of the wharf material at Puget sound was delayed in waiting for piles, as the contractors were advised last week; but they do not expect its arrival here to be delayed beyond next week; and they calculate to complete the wharf within 30 days after the material comes. The Directors will be prepared to supply sacks and other facilities for harvesting and marketing the crops, and by the middle of August, at latest, will be ready to load a 2,000 ton ship at the wharf if the farmers are ready to furnish the wheat.—*Contra Costa Gazette.*

MEETING OF EDEN GRANGE.—There will be a meeting of Eden Grange, Haywards, Alameda county, at 10 A. M. on Saturday, June 10th, at which Bros. C. J. Cressey, A. W. Thompson and J. D. Blanchar will be present and address the Grange upon subjects of interest to the Order. There will be also a harvest feast. Many farmer friends have been invited, and all Patrons are desired to attend.

CROP INSURANCE.—We learn that farmers can have their growing crops insured in reliable foreign companies, by applying at the Grangers' headquarters, No. 40 California street, S. F.

Agricultural Notes.

California.

ALAMEDA.

Grape Crop.—Washington *Independent*, June 3: The grape crop in this vicinity will turn out well this season, it is thought. About the Mission San Jose especially the vines promise a bountiful yield. J. C. Palmer expects to make at least seventy-five thousand gallons of wine from his vineyard this fall.

Currants.—The currant crop is now being gathered at Haywards and vicinity, and is turning out a large yield. Several hundred Chinamen have arrived to help through the fruit harvest.

AMADOR.

Sheltering Hay.—Cor. *Record-Union*: With the exception of the shower of rain which fell on the night of the 19th of May, our haying season has thus far been a most pleasant one. The single rainfall that has visited us did not materially injure the hay which was cut and exposed in the fields, as the timely care it received after the cessation of the rain prevented the crop from losing to any extent its native nutritiousness. The practical experience of past seasons has taught our ranchers the wisdom of the system of storing their hay crop just as fast as it is properly cured, thus following the same course which is adopted in countries where late spring showers are the rule instead of the exception; and as this plan is now pretty generally adhered to by our farmers, but a small portion of the crop is at any one time left needlessly exposed in the field, as cutting, raking and hauling are followed up in seasonable succession, thereby avoiding the possible danger of the loss of the crop, which was in numerous instances sustained during the years when the hay was left on the ground where harvested until the whole crop was mowed.

COLUSA.

Wheat.—*Sun*, June 3: M. Kendrick, residing on the middle of the plains west of Jacinto, in sending us a number of club wheat heads between four and five inches long, writes us that he could gather a wagon load of such heads. He sends also some very large heads of Chile wheat, but he says that experience has taught the farmers of that district that Club is the best to rely on for a sure crop. The warm rays of the sun for the last few days has ripened the grain very fast, and it is all taking the golden hue, which to my thinking is pleasanter to the eye, and more suggestive of prosperity, than the "big bonanza mines."

CONTRA COSTA.

Hop Culture.—*Gazette*, June 3: Mr. Frederick Langenkamp of Ygnacio valley, is the pioneer hop grower of our section, and indeed the only person who has as yet engaged to any extent in this culture. Three years ago, we believe, Mr. Langenkamp planted some ten acres in hops, and made his first crop last year, a light one of course. This year, he informs us, the prospect of a large yield from the vines is very promising, though they have not yet attained the full bearing age. With furnace, drying and packing rooms constructed upon the most approved plans, Mr. Langenkamp has laid out to prosecute the business of hop raising and curing to the best advantage—and as we have no doubt, to profit—leading the way for others to follow in diversifying the products of our district.

FRESNO.

A Fine Vineyard.—*Express*, May 31: The "Eisen vineyard" is under the supervision of Prof. Gustav Eisen, a gentleman of refinement and culture. Mr. Eisen, with a commendable zeal, has planted a large number of the choicest native trees and plants, besides drawing largely from the vegetable kingdom in various parts of the world. The chicken-house on the premises is, in itself, an object of interest. It is two stories in hight, and built of adobe, making it cool in summer and warm in winter. The ground floor is devoted to the laying and sitting departments, and the up-stairs to roosts, while sheltered pens or coops are placed on the outside of the building for the accommodation of the young chickens. It is the most complete establishment we ever saw. Workmen are now engaged in making adobes for the construction of one of the largest and most complete wine-making establishments in the country. The building will he 50 by 100 feet and two stories in hight. The wine presses will be located on the upper floor, while the lower story will be used for storing the must, wine, etc. Arrangements will be made for storing about 40,000 gallons of wine—the estimated yield of this season—but the capacity will be increased as required. Mr. Eisen will erect a substantial residence on the premises this season.

HUMBOLDT.

Good Results from Draining.—Editors Press:—I have a quarter section of land in Eel river valley which is but little above tide water, and as I clear off the brush and timber I find that I have to drain it, or I cannot put in a crop until May of either grain or potatoes. Four years ago I began at the slough and opened a main ditch and three main drains. I found the land near the ditch and drains yielded one-third more than it did between. I am now putting in the side drains; the cost of this work is $25 per acre, labor, lumber and nails. We have had a very wet spring; it rained almost steady until the first of May. We are now only in the middle of our work, so we cannot tell what our crops will yield. Please keep us posted about the potato blight.—James Smith, Ferndale, May 6th.

[We shall be pleased to hear from our readers on the potato blight as mentioned by our correspondent.—Eds. Press.]

KERN.

Barley on Sand.—*Courier*, June 1: Mr. J. T. Anderson has about 100 acres of barley on the highway, two miles west of the town, raised on ground that has never produced anything in its wild state. Last year it was as barren as was possible, with only a few weeds indigenous to the dry ridges formed between the rivers. With the use of water a beautiful crop of barley has been raised, which cannot produce less than 50 bushels to the acre. The waste of sand proves to be more sediment than sand, and few finer crops can be grown on the best lands of the island. The ground has been neglected heretofore as promising too little to encourage its planting. The result proves that there is not a foot of land lying within the river line which will not pay better for planting than any of the richest parts of the plains to the north.

LAKE.

Progress.—*Bee*, June 1: In Bachelor and Scott valleys there is a goodly area of land being planted with corn. Some places there are whole fields of it, and on other farms it is planted in all the corners, where wheat would not thrive so well. Considerable land has also been planted in potatoes, which are looking nice at present. We noticed also that almost all the farmers in this vicinity have good substantial, yes, almost elegant, dwelling houses, together with capacious barns and other outhouses for the proper protection of produce and animals from the blasts of winter. This is as it should be. Nothing will enhance the value of a farm more than judicious improvements. No difference if they are not costly. Good taste will add a charm which money, without it, could never touch.

NAPA.

Army Worms.—*Register*, June 3: Dr. Pond has placed upon our table four army worms, (which are carefully secured in a glass case, however). They were taken from a regiment of stragglers, a quarter of a mile south of Union station, up the valley, where they line the road by thousands. They are of all sizes, from one inch to four inches long, and are traveling in a westerly direction. They are villainous and disgusting looking creatures, and it is to be hoped that they will continue to go west—the further west the better. They are very undesirable visitors, and enough of them will do a deal of damage.

SACRAMENTO.

Bees Dying.—*Record-Union*, June 3: Late swarms of bees along the Sacramento river are dying off for the want of food. So large a portion of the land is covered with water and so little flora is to be found at this time, that they fail to find enough honey to support themselves and feed their young, and the little busy bees are actually dying of starvation. The month of June in this section is the hardest month on bees in the year generally; but this month the present year, in this vicinity, bids fair to be particularly severe, on account of the large area of land covered by water that usually affords about all the bloom of the month, and those who desire to carry their late swarms through the month had better feed them. Probably the best material to be used is white sugar, made into a thin syrup by dissolving in water, and placed within the hives of the weak swarms. Care must be taken not to allow the stronger swarms to know of the supplies given the weaker ones, or there will he war and robbing in the apiary. It may he well to place the food in the hives of the weak swarms early in the morning before the bees are flying.

SANTA BARBARA.

Bees.—Lompoc *Record*, June 3: Now is the time for bees. The general question when people meet is: "How many swarms have you hived this last week?" In the hills, in the valley and in the town large swarms are constantly being seen and easily caught. We heard of one man who found a swarm where he had no box, and he just carried them home in a gunny sack Fact! In some places the bees don't care to hunt a hollow log, or a cave in the rock, but actually make their comb and fill it with honey in the open air, simply suspending it on a projecting limb of a tree, ledge or rock, or even twigs of brush.

SAN BENITO.

Flax.—*Advance*, June 3: Mr. J. H. Algord, the land rating agent of the S. P. R. R. company, presented to our notice a few days ago a very handsome shoaf of flax, made up of stems, measuring from three to four feet in length. The capsules were well filled with seeds, and the sample altogether is one that San Benito county may well be proud of. It is to be forwarded by the railroad company to the Centennial exhibition with other samples of California products. This bundle of flax is from Mr. Pomeroy's field of 50 acres in Santa Ana valley. The land upon which it was cultivated cost $30 per acre, and it is estimated that the profit of the crop the present year will more than pay this amount per acre. The probable yield will be from 1,500 to 2,000 pounds per acre, and the contract price at which it is to be delivered in San Francisco is $3.25 per cental. Make your own figures, farmers, and see how this result compares with the profit on grain.

SAN BERNARDINO.

Heavy Orange Crop.—*Argus*, May 26: Anson Van Lenven was in town yesterday, and says that they will at old San Bernardino this year have the largest crop of oranges that has ever been raised in any one year in this county. He says that if they are not knocked off the trees will break down with the weight.

SAN DIEGO.

Bananas.—*Union*, May 27: Mr. J. M. Asher, of the Finit Vale nursery, has just received five barrels of the Cavendish dwarf banana bulbs from Florida. This banana has been domesticated 12 years in Florida. It comes from middle China, and is well adapted to this climate, having been already tested at different places in Los Angeles county. Colonel Whitner, the "banana king," says: "If frostbitten the first year, they will spring from the root and bear fruit the second year." Mr. Asher will dispose of a part of these bulbs, and it is desirable that their culture should be tested in different parts of the county. There is little doubt of their success, and their introduction and successful culture in this county. They require to be planted four feet apart; after they start give water, manure and attention *ad libitum*; plant two inches under the ground, in rich soil.

SAN LUIS OBISPO.

Money in the Best.—*Tribune*, June 3: Clean, plump grain always commands more in the market than a foul article of the same quality. This was illustrated in the sale of a crop of wheat raised on the Morro creek last season. The farmer who grew it went through his growing fields and weeded out all the mustard, barley and oats, thus leaving, when threshed, a fine, clean milling grain, for which Messrs. Pollard and James, of the Chorro mills, paid more by several cents per cental than for other wheat supplied in this market. A dairyman last week told us that he bought a hog for breeding purposes, that he had no doubt paid him several hundred dollars' profit the first year, in the improved size and quality of his stock hogs. A dairyman had better pay one hundred, five hundred, or even one thousand dollars for bulls from certain strains of stock, than to take one of the common herd for nothing. So with sheep. See what good breeding has done for the flocks that tenant the hills and valleys of California. To-day, for medium wool, the State cannot be excelled. There is money in thoroughbreds—in the best of everything.

SANTA CLARA.

Tall Rye.—*Mercury*, June 1: We were shown yesterday by W. H. Hall a bunch of rye, the stalks of which were nine feet in hight, the same having been grown on Hall's ranch in this county. The bunch will be forwarded to the Centennial exposition as a California curiosity.

SANTA CRUZ.

Reclaiming Lands.—*Pajaronian*, June 3: Near J. M. Ripley's place Mr. Hale owns about 400 acres of tule land—in addition to his dairy ranch—which he is reclaiming at a cost of $25 or $30 an acre, and present prospects look very flattering. He is ditching in a scientific manner, and when the land is reclaimed it cannot be bought, probably, for a price any less than the best Pajaro valley land. In this section are the ranches of J. M. Ripley, A. Cox, B. Callagan, A. Hughes and H. C. Struve. The latter, as seen from the road, presents a most attractive sight. The ranches generally present a thrifty appearance, and houses and outbuildings comfortable and commodious. We understand that several of the farmers along the road design soon to erect new buildings, and make other improvements.

Beet Sugar.—About seven miles from Watsonville the road passes through the sugar beet fields. The company have in 1,000 acres, and the plants look well and promise a fine crop. It is estimated that the yield will be 7,000 tons, and that 100 days will be required to transport them to the factory six or seven miles further on. Gangs of Chinamen were busily engaged at work hoeing or "thinning out." If the yield of sugar meets the expectation of the company—one barrel of sugar to a ton of beets—a good year's work will be the result. The road passes one mile from Soquel, near the beet sugar works. Beet sugar is fast becoming one of the most important industries of the State. Some idea of the extent of the works may he obtained when it is known that 1,500 cords of wood are used in one year.

SONOMA.

A New Blackberry.—*Russian River Flag*, June 1: Eld. Richard Corbaley has a rare native blackberry which he has cultivated and greatly improved; it is about two weeks earlier than the ordinary wild variety of this locality. The fruit resembles the dewberry, but has the flavor of the black-cap raspberry. Mr. Corbaley has about 60 stools of this variety in bearing and from present indications will be able to plant quite extensively next season. It is his purpose to cultivate this variety for market. The berry is fair sized and very firm—qualities which will add to its value for shipment.

STANISLAUS.

First Shipment.—*News*, June 2: The first shipment of grain from this county, that we have heard of, of the present crop, was from Grayson, on Saturday, May 27th. The grain, consisting of 600 tons of barley, grown by Mr. McPike, was shipped by the *Clara Belle* and barge. The yield per acre was over 60 bushels.

Rye.—Those of our farmers who have given rye a test speak of it in the highest praise. It is an admitted fact that rye is peculiarly adapted to our plain lands. The only question presenting itself is as to the market. Those who have tried it assert that rye never fails to mature a perfect crop on our driest soil.

SUTTER.

Notes.—*Banner*, June 1: There is now a great demand for harvest hands in this vicinity, and a large number of steady young men can find profitable employment in these parts during the next four months. Ready work and good wages are guaranteed to the right kind of men, and those coming from the East would do well to visit this place. We have heard several persons who passed by B. F. Walton's place speak of his field of barley as the best they had ever seen, and set down its probable average as high as 80 bushels to the acre. We will try and get the correct average of this wonderful field as soon as it is threshed. Large quantities of this year's hay are daily coming into town. The price rules very low; we understand $6 per ton is the most paid.

An Improved Separator.—H. C. Jones, one of our enterprising and ingenious farmers, is building an improved grain separator. Hugh is an old hand at building separators, having already built one and nearly worn it out in long service. The chief improvement in the new one is in the "shoe," which is intended to be five feet wide, while the cylinder will be only 36 inches. All experienced threshers agree that the cleaning capacity of most separators is not in proportion to the cylinder, which causes great loss to the farmer, in consequence of the grain blowing over. We feel confident that Jones' improvements will prove successful, as they are the result of years of practical experience and careful observation.

TUOLUMNE.

Editors Press:—The fruit crop of Tuolumne county is now past all danger from frosts. The grapes in some sections suffered some, but taken as a whole this county will have a large surplus of superior fruit for export. All we lack is railroad to reach San Francisco market. The quality of the fruit would ensure a ready sale at remunerative rates. I will give you the doings of one new comer from his own statement by letter—Gen. J. Winchester, of Columbia—proving some of my former statements, that the old fogy miner gardeners will give place to enterprising strangers, who will produce results truly astonishing to the natives. He writes: "I have finished planting this week; have over one thousand hills of corn, more than that of beans, pumpkins, squash, melons, cucumbers, peas and small trash, an acre of wheat, two of oats. I have grafted Mission vines by the hundred with the Muscat of Alexandria. I have planted 120 young plum trees, some walnut and chestnut, etc., fixing, you see, for the future—for somebody." So wrote my enterprising friend; although sixty-five summers have left his locks as white as snow, still the heart is green and hopeful. This is the proper way to leave a legacy, richer than stocks in richest fancies, more permanent than the toys of gilded fashion. Home, garden, fruits and flowers, family and friends, are a something to be treasured dearly when produced by your own brain and muscle, and conducive to long life and a peaceful death. Happy the home of the contented, progressive farmer.—John Taylor.

YOLO.

Wheat Blast.—*Mail*, May 27: We understand that some of the finest and most promising looking wheat near Cottonwood is badly smitten with smut and blast Ed. Tadlock, a thorough farmer of that section, has a field of wheat which was thoroughly cultivated, and which gave promise of a large yield—estimated by those who have seen it to be one of the best in that part of the country. Upon a close examination it has been discovered that the heads have but two rows of grain, where there should be three—the third one apparently blasted. It is thought that it will not yield more than 20 bushels to the acre, where it gave promise of 50 or 60 bushels. There are other fields of wheat in that section which exhibit the same disastrous effects, and the cause is unaccountable. It may be well for our farmers to examine into this affair and its causes, and look out for a remedy so as to prevent it in future. Perhaps Mr. Tadlock did not use enough blusstone.

Washington Territory.

The Wheat Crop.—Walla Walla *Union*, May 27: The splendid appearance of our grain fields, which promise an exceedingly large yield per acre, the fact that hundreds of acres more than ever before have been put into grain this year, naturally cause our farmers to look at the possibilities of the market. After making a great many inquiries, we are led to the conclusion that this valley will this year have double the excess of any previous year to sell. This being the case, it would appear that under the present rates of freight and the persistency of the railroad company in exacting the last cent they think the producer can possibly pay for the transportation of grain, that a very large proportion of the crop of this year will have to be carried to next year.

Superintendent La Grange gives notice that the United States mint in San Francisco will be closed for the annual settlement on the 10th instant and remain closed until July 5th. During the interval, however, deposits of fine bullion will be received for coinage in July.

A bill has been introduced in the Senate allowing certain parties to lay and maintain a telegraph cable from America to Asia, and affording them facilities through the navy.

Happy Thoughts.

The good are better made by ill,
As odors crushed are sweeter still.
—*Rogers.*

Cheerful looks make every dish a feast,
And 'tis that crowns a welcome.
Massinger.

A merry heart goes all the day,
A sad tires in a mile. —*Shakespeare.*

Still there whispers the small voice within,
Heard through gain's silence, and o'er glory's din,
Whatever creed be taught, or land he trod,
Man's conscience is the oracle of God.
—*Byron.*

Procrastination is the thief of time:
Year after year it steals till all are fled,
And to the mercies of a moment leaves
The vast concerns of an eternal scene.
—*Young.*

True dignity is never gained by place,
And never lost when honors are withdrawn.
—*Massinger.*

Beware of doubt—faith is the subtle chain
That binds us to the infinite.
—*E. C. Smith.*

Scorn no man's love, though of a mean degree;
Much less make any one thine enemy.
—*Herbert.*

Base envy writhes at another's joy,
And hates the excellence it cannot reach.
—*Thomson.*

Errors like streams upon the surface flow;
He who would search for friends must dive below.
—*Addison.*

Experience, joined to common sense,
To mortals is a providence. —*Green.*

Faith lights us through the dark to Deity.—*Young.*

The narrow soul
Knows not the God-like glory of forgiving.
—*Rowe.*

Fortitude is virtue fighting for a truth.—*Nabb.*

Time, place, and action may with pains be wrought,
But genius must be born, and never can be taught.
—*Dryden.*

Know then this truth—enough for man to know—
Virtue alone is happiness below. —*Pope.*

All habits grow by unseen degrees,
As brooks make rivers, rivers run to seas.
—*Dryden.*

Humility, that low, sweet root,
From which all heavenly virtues shoot.
—*Moore.*

He is a freeman whom the truth makes free,
And all are slaves beside. —*Cowper.*

Our life contains a thousand springs,
But dies if one be gone.
Strange that a harp of thousand strings
Should keep in tune so long!
—*Watts.*

Remorse is virtue's root; its fair increase
Are fruits of innocence and blessedness.
—*Percival.*

The greatest glory of a freeborn people
Is to transmit that freedom to their children.
—*Havard.*

I have thought
A brother's and a sister's love was much;
But the affection of a loving child
For a fond father, gushing as it does
With the sweet springs of life, and living on
Through all earth's changes, like a principle,
Chastened with reverence and made more pure
By early discipline of light and shade,
It must be holier. —*N. P. Willis*

An Every-Day Story.

Last week a woman died of whom we wish to say a word here. It does not matter how or where she died. She was so obscure, belonged to so common and poor a class that no notice of her death found a place in even the cheapest paper, and no one who knew her will read these words. Only one of those thousands of ordinary lives that, day by day, end unnoticed, no more missed by the world than so many burned out candles. This woman had neither beauty, nor wit, nor large culture; she brought no gift with her when she was born to make her greatly welcome to the world; never could sing a song, nor write a poem; was not even fitted to reign in a drawing-room. She was only a sweet-voiced, gentle lady, full of womanly affection and eager tenderness, who had kept her pure childish beliefs unchanged to middle age. She was little, sickly, shabbily clothed; she lived in a tawdry house with glaring paper on the walls, and torn, dirty matting on the floor; the air she breathed was that of want and vulgarity; year in and year out she worked at a machine, sewing dresses for servants and shop girls who bullied her, not unreasonably, for she was but a poor seamstress, if the truth must be told. Her husband, a coarse-grained, gossiping fellow, tried this trade and that, became a ward politician, did what he could for his family, but felt that his wife must do her share. He had been used to raw-boned, stout Connecticut farm women, beside whom she doubtless appeared inefficient enough.

If others remembered how tenderly nurtured she had been as a girl, and that the fortune she brought him he had flung away, he never did. Nor did she. They were wretchedly poor, and it was but just and proper she should work. So she worked, stopping now and then to give birth to another child to be nursed at the tired breast and watched and prayed over with the blind, idolatrous devotion she gave to the others. Certain logical moralists lay down as axioms that there can be no tragedy without crime, and that no woman, with loving husband and children, ought to ask for more. The loud bragging politician remained her hero to the last. If her life slowly dried and withered away, as a tree might, tapped of all its juices at the root, she thought it was herself that was to blame. This poor lady was cursed with as finely wrought an organization as any favorite of fortune; both body and mind required companions of her own caste, and that nutriment which nature and art give but to few, but which that few must have or die. Besides, not even the strongest woman can furnish bread and butter for a household of children, make their clothes, keep their souls pure and their manners refined, and add to the number every year. She was not strong in any sense; so she stitched, and nursed and trained them, while the dirty walls about her and the torn matting under foot and the crowd of children grew shabbier and coarser and more vulgar day by day. One day an old accomplishment of her girlhood recurred to her: flower painting, molding in clay, designing—it does not matter what; work, however, in which her real nature would have found food and expression, and the pay for which would have been comparative affluence. She sent a specimen of her work for trial, which was approved; but—men were employed who had been trained to the business. Only the machine was left, and the work for her children's bodies and souls that she could not do. It grew and grew before her sight until the day came when she dropped as under an intolerable burden. As she lay on the bed day after day slowly dying, husband and children were loud in sorrow and astonishment. "How had she come by such manifold diseases? Machine work and want of air? It was incredible." She struggled with her work yet, sewed as she lay on her back, drew her children close to her with a hungry, unsatisfied love in her eyes that they could not understand. But as the hour came for her to quit the world that had been so niggardly of its comforts or bounty to her, she was beset with restless fancies, which to her husband seemed scarcely sane. "She thinks if she could see and smell a thorny rose that used to grow wild about the farms down there in Maryland where she was born, she would be well again. Now what good could there be in a rose?" He could not see why she would make them put the children out of the room and turn out the gas that she could not see the machine, and so lie looking at the patch of sky above the brick walls. When she was dead, he cried, "I did what I could; I am not to blame." And it was true; no man can go beyond his nature.

What was to blame? Not poverty; not the working for bread and butter; not the unequal marriage. Since the world began, King Cophetua have married beggar girls untitled, clothed them royally in their own fames; and Titanias have rejoiced to worship an ass. But if she had been taught practically the one occupation for which her taste and ability fitted her? If all women were so thoroughly taught such occupations that employment would be opened to them as men? The answer matters nothing to her now. A day or two ago the worn-out body was laid back in the earth to which it had been drawn by such strong and subtle kinship. To what rest or recompense the soul of the gentle lady passed, only He knows who took it hence. Her work remains unfinished. But it is because there are so many thousands of over-worked women around us on every side, staring blankly at their unconquerable work, and lives wasted at noon-day, that we have told her story, and reverently held back her memory, for this brief moment, out of the eternal silence.—*Rebecca Harding Davis.*

NEEDLEWORK AT THE CENTENNIAL.—Mary S. Riley, of Louisville, Ky., makes one of the most interesting and wonderful exhibits in the entire collection. It consists of admirable portraits of individuals, taken either by embroidering in silk or working in worsted. Notwithstanding the apparently insuperable difficulties in this process in the way of securing delicate shading with such cumbrous and unmanageable materials, the artist has succeeded in several instances in producing works in black and white which at a little distance cannot be distinguished from etching. The work in different colors is also wonderful, but is nothing to compare in fidelity and sharpness of outline with the work in black and white. By means of simply stitching black and white silk on a white ground, the artist has succeeded in producing admirable portraits of Hon. W. E. Gladstone and John Bright, and of James Bridgeford of Louisville, Ky. She has wrought in worsted pictures of Queen Victoria, Prince Albert, the Prince and Princess of Wales and the Princess Royal of England, now Crown Princess of Germany. But the most ambitious and most interesting piece in the collection is a picture in worsted work representing the "battle of Langside, or the death of Douglas in the defense of Mary Queen of Scots." In the foreground is Douglas, lying on the ground in his armor, with his charger near by and his knights surrounding him. Queen Mary is bending over with a look of anxious solicitude, and a monk near by holds a cross to his (Douglas') lips. Above him spread the boughs of a large oak, and in the distance may be seen the smoke of battle. The success which the artist has achieved in blending colors and in shading is really wonderful. The deep green foliage of the trees, the rich velvet and silken garments of the knights and ladies, the bright trappings of the horses—even the deathly pallor and expression of agony on Douglas' face—all are brought out with almost as much clearness as if they had been painted.—*Philadelphia Ledger.*

The Duty of the Press.

The first and probably the most difficult work of the true and Christian journalist is to correct the taste of the reading public, and thus lessen the demand for, and ultimately stop altogether, the supply of the miserable, washy-washy and corrupting trash, falsely named light literature, and the news which is now interesting society. The great want of our times, as we understand it, is a lifting up of the habits of thought, a turning of the mind to things higher and better, a breaking loose of attachment to things which administer to the flesh only, and a recognition of our relation to a purer and unseen realm, and our consequent obligations to do right simply because it is right. The higher and better man and womanhood, which is presented as an object worthy of the ambition of society, can never be attained while the mind is feeding on the apples of Sodom and the soul festering in the fevers of lust. As well might we hope to sober the drunken by additional drafts from his cup, as to purify and elevate the minds of men and women while they are being continuously inflamed by fuel to passion such as is found in most of the reading of to day. Our people are rapidly becoming a reading people, and with a taste unfortunately vitiated the public mind is clamoring for food. Brothers of the quill and sellers of books, the people demand of us bread; shall we "give them for bread, a stone," or "for eggs, serpents," which will sting them to moral death? God forbid! Let us rather give them that which will impart health, strength to live, to work, and to rise and bless the world; and let us, by showing them the tendencies of their appetites, and by furnishing good reading matter, help in correcting their tastes.

We should not forget that the press is the greatest educator of the day, and, more than any other instrumentality, gives cast to individual and national character; and we should remember also that this influence imposes a corresponding responsibility upon us. To meet this heavy and far-reaching responsibility, and to make the press the palladium indeed of American liberty, the elevating lever of our advancing civilization, it must have a moral conscience and an unyielding spine. Its influence and patronage must be withdrawn from the market. It must love the right and determinedly stand by it. It must be used no longer as the tool of demagogues to foist them to office. It must break its league with a remorseless money power, and no longer assist it in plowing its schemes of fraud through legislation. It must turn away from charlatans and impostors and refuse to longer recommend them through its columns. It must stand as a faithful guardian of the rights as well as a trustworthy monitor to the minds of the people. And upon the appearance of harm, be it from an open foe or an insiduous evil, it must have the courage to give faithful warning to the people, and strike telling blows for humanity and the right. To do this we shall be called upon to thin out our advertising columns, and for a short time our subscription list may be cut down and our revenues greatly lessened, so that some of us may have to exchange the quill for the hammer and plow handles, but it will be well; our country will have been saved, and humanity entered upon the ascending node.

We repeat, then, the great want of the American press to-day is conscience and backbone. —*Oregon Cultivator.*

The Propensity to Fib.

Is there such a thing as an inherent distaste for the truth? Judging from the dogged preference for falsehood which some persons manifest even on occasions when reason must tell them that veracity would serve their purpose best, it really seems so. That a propensity to fib sometimes runs in families is beyond dispute. The sins of parents are not only visited upon their children, but, in many instances, appear to be inherited by them from generation to generation. An evil twist in the moral nature of a parent is, we fear, more apt to be inherited than a virtue; just as physical ugliness is more frequently transmitted by descent than physical beauty. We do not believe, however, that a tendency to "tell stories" is, under any circumstances, ineradicable, if taken in time.

The hereditary diseases of the flesh were once thought to be incurable; but we know better now; and charitable Christians also believe that hereditary moral infirmities are not beyond the reach of moral medication. But mendacity must be dealt with in the grisle. A mature falsifier is a hard subject. It is next to impossible to school his vile idiosyncracy out of him. With children it is otherwise. The value and importance of truth may be so impressed upon them by counsel, by illustration, by discipline, that they will never depart from it in after life.

George Washington and His Equipage.

Washington's carriage was of a light cream color, painted on the panels with beautiful groups by Cipriani representing the four seasons. He was preceded by two gentlemen with long white wands who kept back the crowd. His stables at Mount Vernon were furnished with thoroughbred horses. When he appeared on horseback it was always with fine equipments, accompanied by his servant. For Mrs. Washington he kept a chariot and four horses, with black postilions in livery. The following order, sent to his London agent, for out-of-door equipage, savors of a republican simplicity which would cause a stare in these later days:

Man's riding-saddle, large plated stirrups, and everything complete.
A very neat and fashionable (!) Newmarket saddle-cloth.
A large and best (!) portmanteau, saddle, bridle and pillion.
Cloak-bag, surcingle; checked saddle-cloth.
A riding frock of a handsome (!) drab-colored broad-cloth, with plain double-gilt (!) buttons.
A riding waistcoat of superfine scarlet cloth and gold lace, with buttons like those of the coat!
A blue surtout coat.
A neat (!) switch whip, silver cap.
Black velvet cap for servant.

He was fond of horses, and his equipages were always of a superior order. He kept a register of both horses and hounds, and in hunting was always superbly mounted, and wore a blue coat, scarlet waistcoat, buckskin breeches, top boots and velvet cap. His pack of hounds was very numerous and select, and he used to hunt three times a week. When he broke up his kennel he formed a deer park of a hundred acres. For breakfast the custom of his time and society was tea and coffee, roast fowl, ham, venison, game and other dainties. Never was there a more generous hospitality than his. House and apartments and servants were at the disposal of the guest. At dinner the center of the table contained five or six large silver or plated waiters, those at the end oval on one side to correspond with the shape of the table. The waiters were filled with mythological alabaster figures. On the outside of the oval formed by the waiters were the dishes. He had a silver mug of beer by his plate, and he drank several glasses of Madeira wine. His wines were always the best that could be obtained, and nothing could exceed the order with which his table was served. Every servant knew what he was to do, and did it in the most quiet and rapid manner. The dishes and plates were removed and changed with a silence and speed that seemed like enchantment.—*Galaxy.*

Leaves From My Scrap Book.

I think one always feels the better for looking any small evil of life straight in the face.—*The Country Parson.*

Women can do a great deal for each other if they will only stop fearing what "people will think," and take a hearty interest in whatever is going to fit themselves to deserve and enjoy the rights God has given them.—*L. M. Alcott.*

We bury love; forgetfulness grows over it like grass; that is a thing to weep for, not the dead.—*Alexander Smith.*

What a great gift is sunny, cheerful disposition is.—*Anon.*

A Scotchman thus recently addressed his daughter: "Fat's this I hear ye're gann to dee, Jennie?" "Weel," she replied, "I'm gust gann to marry that farm ower by there, and live wi' the bit mannie on't."

It is well for us that we do not count up in early life the number of steps, many of them weary ones, we shall have to take in treading the long road that reaches from the cradle to the grave.

Great duties are before me, and great songs, and whether crowned or crownless when I fall, it matters not, so as God's work is done.—*Alexander Smith.*

It is not hard to die. It is a thousand times harder to live.—*H. W. Beecher.*

A half-and-half performance of the right is just about as mischievous as the perpetration of the wrong.—*Gail Hamilton.*

And though all cry down self, none means his ownself in a literal sense.—*Butler's Hudibras.*

No man ever became great and good except through many and great mistakes.—*Gladstone.*

MISSED 'EM SEVEN TIMES.—As a reporter passed a North Hill schoolhouse yesterday, says the Burlington *Hawkeye*, a studious looking lad emerged from one of the doors, with a worried expression of countenance, and ambled around to the rear of the building, closely followed by a companion who popped from behind a fence. The two sought a retired nook, where the studious lad backed up against the wall, and, reaching his hand behind him into that department of a boy's clothing that is patched next after the knees, he drew forth a heavy buckskin mit, and again another. As he readjusted his deranged garments, he winced a trifle, and, rubbing a little lower down his anatomy, gave vent to the remark: "They're pretty good, Jimmy, but he missed 'em seven times."

NEVER fear spoiling children by making them too happy. Happiness is the atmosphere in which all good affections grow—the wholesome warmth necessary to make the heart-blood circulate healthy and freely; unhappiness, the chilling pressure which produces here an inflammation, there an excrescence, and worst of all, "the mind's green and yellow sickness"—ill temper.

Diversity of Gifts.

To be content with such things as we have, and yet to covet earnestly the best gifts, is not always an easy thing to do. In straining after what we have not, we are prone to forget or ignore what we have, though it may be of its kind the best, and to allow buddings of discontent and envy to spring up in our hearts. The farm laborer aspires to ownership, and esteems lightly in comparison his power to labor, his freedom from responsibility. The owner envies the facility with which at the close of a day's work his hired man can sleep, careless whether the crops will turn out well or not. The same diposition pervades all classes of society. No sooner have we won one crown than, unable to see its glory, but only to feel its weight, we aspire to another that we can see because we do not happen to wear it. George Eliot, not satisfied with her unique and glorious authorship, is pained, it is said, because her poetry is less highly esteemed than her prose. In this there is nothing blamable. It is "right and proper and our bounden duty" to develop to the utmost the capacities God has given us; to hold ourselves as stewards intrusted with talents which we are to put out at usury. But all of us have our limitations, and happy are those who learn what those limitations are, that they may not waste themselves in vain and fruitless endeavors to compass what is not within their power, while they leave undone that which they might easily accomplish. There must be workers in all vineyards, and he who lays brick and lays it well, who sweeps streets and sweeps them clean, may in that fulfill the end for which he was made, and be as useful to his race in his way as the man who pays him for doing it. It is not the work that honors the man, but the man that ennobles and dignifies and honors the work, thus showing himself worthy of the crown of true manhood Our limitations are sometimes in ourselves, sometimes in our circumstances.

There are hidden away in the nooks and corners of society many clever people, who, from various circumstances, can illuminate only the small circles in which they shine. One such, a true lover of learning and an accomplished scholar, writes thus: "Just now my place is with my father and mother. They are aged and infirm, and no one can do for them as I can. To brighten their declining years and smooth their pathway down the vale of life is now my sole object, to accomplish which I willingly forego the pleasures of society and indulgence in my favorite pursuits of literature and art." This estimable person, while thus engaged, may not be growing intellectually, but what noble and beautiful development of the moral and spiritual nature must be the result of the dutiful course she is pursuing. There is a knowledge higher than any that can come from books, an elevation loftier and more desirable than any mere intellectual mastery can boast.

Our nearest duty is always close at hand, so close to us sometimes that we overlook it, and let heathen perish on our thresholds while we are carrying the gospel to Boorioboola-Gha. There are crowns for all of us, just above our heads, and if we stand upright and constant in the path set for our feet, we shall reach them, and some time wear them, though their beauty our eyes may not behold. Fidelity to the trust imposed is the one only requisite; it matters not what the work may be, so it is well done. *Tribune.*

Mark Twain as a Horse Buyer.—At a lecture in New York, Mark Twain related an anecdote in relation to buying a horse, which he told as follows: I bought the horse at auction; they called it a Mexican plug. I did not know what that was, but supposed it was all right. The brother-in-law of the auctioneer took me to one side and said: "Now, I could cheat you, but I won't; I see you are a stranger. Now, that horse is a genuine Mexican plug, and, besides, he can out-buck anything in the country." I did not know what "bucking" was, but I wanted a horse that could excel in something, so I bought him. The next afternoon I thought I would ride him, so I brought him out, and two men held his head and another man held him down to the ground by the tail, and I mounted; and just as soon as they let go that horse brought all his feet together in a bunch and lowered his back, and then suddenly elevated it, throwing me some feet into the air. I went straight up and came straight down and lit on the saddle; and up I went again, and still again. This time I lit on the neck of the animal and hung fast. Then he rose on his hind feet and went through all the gymnastic performances he knew of, and finally ended by throwing me up again; and while I was up in the air I heard some one say, "Ah, how he bucks!" So that was bucking. Before I got down some one hit that horse, and when I got down he was not there. Plenty of friends gathered around to offer me sympathy; they always do when you want to be alone. I wanted to sit down and I did sit down; and I was so sore and bruised and shaken, I put one hand to my head, the other to my stomach—and if I had had 16 hands I could have found places for them. One friend said, "Why, you might have known he was nothing but a Mexican plug." "Yes, I did know it." Another, "Why, you could see that animal bucked." Yes, that was what I bought him for.

Young Folks' Column.

The Farmer's Daughter.

The sunshine to the meadow lands,
"Bright days have come," keeps saying;
The children, taking hold of hands,
Beside the brook are straying.
Or, grouped around, in rosy bands,
On mossy knolls are playing.

The birds are singing everywhere,
The winds are soft and wooing,
And Mary, in her sewing chair,
Heare o'er the white dove's cooing.
Her playmates call, the skies are fair,
What can the lass be doing?

While Nature pours her cup of balm
O'er earth, and air, and water,
Has she no power your soul to charm,
That thus in-doors you loiter?
"Behold my answer in my palm,"
Replies the farmer's daughter.

"That Nature has no charm for me,
Kind friends, I'm not pretending;
I love to roam hill, vale and lea,
With blue skies o'er me bending,
But duty binds me, now, you see—
My father's coat needs mending."

And is not duty's task severe,
Too stern for youth's obeying?
"Nay, love makes duty's pathway clear,
With both my heart goes Maying;
And love keeps whispering in my ear
The words that duty's saying."

—*Boston Cultivator.*

Boys, Do Something.

We want to say just a word to the boys of the farm. We have no sermon to deliver, no lecture—just a bare suggestion—and we hope every farmers' boy will heed it. Make a beginning for yourselves this Centennial year. The time will finally come when you must look to your own exertions for a living. It is your wisest course to fit yourselves early for the battle of life. Solicit from your father the right to plant and cultivate some certain plot of ground, be it ever so small, the product from which shall be your own. Prepare it most thoroughly, plant it with care, keep it clean of weeds, harvest the crop and sell it, putting the proceeds at a fair rate of interest, so that when you "become of age" you will be able to begin your business career as independent, well-to-do citizens. Suppose you are 10, 12 or 14 years of age. Just sit down and figure up what the mere trifle you may earn for yourselves this year, at compound interest, will amount to by the time you are 21 years old! Then if you add it to each year, in a proportion to your efficiency as farmers and you will be astonished at the result.. Do not fear that your parents will not second your every effort. Nothing will please them so much as to realize that you are really a young *farmer*, with great hopes of the future and a great ambition to excel. They know that the farmhouse is the real home of happiness and comfort, if within it are found contentment and high aspirations. The time has fully come when the lords of the soil are the lords of the country. With careful lives, with good education, with even fair ability, the farm boy may hold any and all positions when in manhood's prime, and it is to him that the nation, in these days of corruption, must look for true manhood and true patriotism. The beginning of all this future brilliant career is dependent upon early self-exertion more than upon all other things. Whether your parents are rich or poor does not matter, it is individuality that wins.—*Prairie Farmer.*

Toy Making.

In Paris there are about 5,000 workmen employed in the exclusive trade of toy manufacture. The chief essential in this art is the procuring of the substances—the raw material—to be used, for unless these can be obtained for next to nothing, the finished work would have to be sold too dear to allow of its success. The barrels of sham guns, so dear to the warlike male offspring of the modern Gaul, are wrought up out of old sardine boxes. Doll's boots are made of the coverings of discarded purses, and their dresses and trimmings of the old worn-out stage costumes of actresses, gathered from from every theater, great or small. As for the wheels which support the thousand movable creations in which the infantine heart delights, they would, of course, if constructed even by toy wheelwrights, be an important item of expense in the profession. As it is, they are provided for by appropriating to this purpose the round pieces cut out from wood or metal when holes are bored in it to allow the insertion of some other article. Such are the cruet-stands in use in France, in which each glass bottle is encased in a layer of wood, while in this country probably medicine boxes would afford a more common example of the same thing. For the little pewter instruments used in doll's houses, such as plates, knives, spoons, bottles, and fire-irons, the toy makers press into their service the metal belonging to old water pipes and spouts, worn-out roofing, and the filings collected in workshops. But the most striking and horrible revelation remains yet unmade. Whence comes the lead of which those resolute German and English soldiers are made who stand so bravely on their thin ledge of ground to be picked off by peas and marbles? Let not any boys with tender susceptibilities or a tendency to melancholy be made aware of the answer. They are forged out of the metal cut from ancient coffins dug out of the old cemeteries at Nuremburg.

Good Health.

Is Medicine a Science?

It is a nice question, in many cases, which has done the more hurt, the disease or the remedy; whether, for instance, the child's health suffer more from the intestinal parasites which vex him or from the destructive purgatives employed as anthelmintics; whether the cancer or the knife produces death more speedily; whether calomel or quinine be not pretty much such friends to the sick man as La Fontaine's good-natured bear was to the gardener, whose mouth he crushed while trying to brush the flies off as he slept. It is an equally nice question to determine whether there ever really does occur a critical period in any decease, when the direct action of actual medicine, *per se*, can turn back the wavering life from the jaws of death to the flowery meads of re-established health; or, granting the possibility of such a rare occurence, do we not run too great a risk, as a rule, to be able to profit by it? These are nice questions, as I have called them; nor does the present condition of medicine entitle us to expect to see them answered. For these reasons, among many others, medicine cannot be called a science.

It must not be supposed, however, that the doctor's office is to become a sinecure because his drugs are voted rubbish and his methods false. On the contrary, we shall need him quite as much and his advice will be more valuable to us than ever. He will not have it in his power to do harm, and consequently can give his undivided energies to the pursuit of good. It shall be his office to teach us the fallacy of physic. He shall present to our minds in all its horrid array the atrocious enormity of medicine as once it was practised, and so shall save many a poor sufferer amongst us from unconscious suicide. He shall be our perpetual beacon-light against the iron-bound, immitigable loadstone rock of quackery, where so many fair keels lie untimely wrecked. In fine, he shall become to us the counterpart of that invaluable member of another profession, known as the chamber lawyer—a quiet man, of skill and experience, who abounds with all the wisdom and unction of pertinent counsel, and who never takes his client into court, where he bound to lose, no matter how his case is decided.—*Edward Spencer, in "The Atlantic" for May.*

The Effect of Worrying.

Worry is defined in our dictionaries as a state of undue solicitude, anxiety, trouble. Shakspeare says that worry is

"A hell-hound that doth hunt us all to death;
A dog that hath his teeth before his eyes
To worry lambs and lap their gentle blood."

Shakspeare's picture is graphic, and one almost sees the monster before him. He personifies and makes it a creature visible to our senses, and all we have to do to escape his clutches is to run away or take our tomahawk to him. But, notwithstanding Shakspeare's graphic poetical statement, worry is not a creature at all, but simply an abnormal action of the mind to which we commonly attach very little importance; and yet which, if persisted in for any length of time, possesses elements of danger that will produce disastrous effects on the health and happiness of the individual. Worry is not a cheap and easy form of mental action, but an expensive one. The mind does not run smoothly, but with friction, heating the nervous machinery and destroying its substance. Worry is a nervous strain, a load of care and anxiety, which is too much. It comes on in times of mental weakness, when the person is tired, worn out, exhausted. Worry is more dangerous than overeating. Yea, it it may be even more dangerous than drinking, bad as that is. It breaks down the body and mind. Worry is also useless. It is foolish. It is wrong. And yet most people will do it. Worry is a symptom of mental unsoundness. It does itself. The will cannot control it. It will not stop when ordered. It keeps on day and night often. It prevents sleep. It destroys appetite. It spoils digestion. It takes laughing away, and puts sighing in its place. The man always in a worry never sits down to the table with a heart full of thanksgiving. He never laughs or tells a funny story. His face is long. His heart is sad. His head is hot, and his feet and hands cold. He is not healthy. A perfectly healthy person never worries. He must begin to break down first. The nerves must first begin to tremble. Then worrying comes easy.—*M. L. Holbrook.*

Diet.—Say the vegetarians, 100 acres of good land will support a greater amount of human life, if planted to wheat, corn or potatoes, or products directly consumed by man, than if laid out in pasture for planted with vegetables designed to feed cattle. This may be true, but all land is not cultivable to such crops as man feeds on, there being much land unfit for tillage that may be good pasturage. Under the vegetarian *regime*, such land would furnish nothing directly for the food of man: so of forest and moor—game would cease. Vegetarians reject the products of the sea: milk, butter, cheese, beef, pork, mutton, poultry, fish, etc., are all rejected by the strict vegetarian. A mixed diet utilizes the products of the sea, the moor, the forest and grazing lands, as well as the products of tillage land.

Domestic Economy.

Science in the Kitchen.

Man is defined as "the only animal that cooks his food." It has been said that good cooking is the first element of civilization, and the better the cooking the higher the civilization.

Says Dr. Willard Parker, of New York: "If you wish your son to be a tiger, feed him on meat; if you wish him to be a lamb, give him bread and milk." Says another: "Tell me what a man eats and I will tell you what he is."

May I ask if we are not quite as dependent on the quality and preparation of the food we eat, as on its distinctive nature? Are not the dishes of our tables wholesome or hurtful as the ingredients are good or poor, and as they are well or ill prepared? Let us take the beefsteak, bread and rice of daily use; does not a thick tender beefsteak, well broiled, rare, and served hot, simply in its own juice, give strength of body and corresponding buoyancy of spirits, while, on the other hand, a thin, tough beefsteak, fried until its flavor is gone, and served lukewarm, half covered with fat, cause weakness of body, depression of spirits, and irritability of temper? Does not bread made from good flour, mixed with the right proportions of salt, yeast and water, then raised, baked and properly cooled, gratify the taste and easily accomplish its work of nutrition? How striking in contrast is bread made of poor flour, mixed without regard to proportions, allowed to stand until its sweetness is not only gone but has given place to an acidity which is more than destroyed by an over quantity of soda, then, insufficiently baked, and, when taken from the oven, so covered that the crust becomes soaked, losing all its crispness! This bread is eaten from sheer necessity, and its assimilation is labored and meager. Does not good rice (used as a vegetable,) well washed and so boiled that every grain stands out white and alone, tempt one by its mere beauty to appropriate its nutritive qualities? Whereas poor rice, unwashed, boiled into a soggy bluish mass, is so unattractive that, if eaten at all, it is without that relish which adds greatly to the good effect of food.

Let the kitchen be directed by intelligence and skill, and it becomes "a well-spring of joy" to the whole house! We must have good tables if we would have health, happiness and refinement. Not that the tables should groan with rich and costly viands—not that there should be a great variety; but the two, three or four dishes should be well chosen and perfect of their kind, both in their cooking and the serving. This, in connection with the neatness and order which are indispensable to the comforts of the table, will give it the high rank to which it is justly entitled. That it is a great power in the family all must admit; whether for evil or good depends not only on the manners and conversation of those who surround it, but also on the preparation, arrangement, and appearance of the dishes. If poorly cooked and badly served the influence is on the side of evil; but if well cooked, savory and inviting, the effect is to scatter clouds and gather sunshine; and if it is our habit to eat moderately and slowly, this influence will deepen into our lives, helping to make them genial, loving and strong.—*Mrs. Miller.*

The Irreproachable Way to Broil a Steak.

First see that the fire is clear and not too much of it; open wide all the drafts, to carry off the smoke that is made during the process of broiling; then see that the gridiron is smooth and quite clean; rub it well with whiting or chalk; lay on your steak. Do not pound it, nor after it is on the fire, stick a fork into it, as the juice will escape. Neither salt nor pepper it; do that on the dish. Place the gridiron close to the fire for the first few minutes, to carbonize the surface, then turn it over quickly to carbonize the other side. Now it should be exposed to a slower fire, to do which, place two bricks on their edges, and rest the gridiron on them. The steak should be turned repeatedly and carefully, and when it feels rather firm to the touch, it is rare, and, if so liked, it should be taken off, laid on a hot dish, on which one and one-half ounces of butter has been melted, less than one-half teaspoonful of salt, a pinch of white pepper and one teaspoontul of chopped parsley well mixed; lay the steak on one side and then on the other. Serve immediately.

Vanilla Custards.—One stick of vanilla; one pint and a half of new milk; half a pint of cream; quarter of a pound of white sugar, and seven yolks and four whites of eggs. Cut the vanilla into slips; boil in the milk and cream quarter of an hour, adding the sugar; strain, and let it remain till cool; then stir in the eggs, well beaten; pour it into cups with half a teaspoonful of fresh butter, melted in each cup; set them in water; bake in a moderate oven; color them when done by holding a hot salamander over, and serve cold, with sugar sifted on the top.

Ground Rice Cake.—Break five eggs into a stewpan, which place in another, containing hot water; whip the eggs for ten minutes till very light; then mix in by degrees half a pound of ground rice; six ounces of powered sugar; beat it well; any flavor may be introduced; pour into a buttered pan and bake half an hour.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

No SUBSCRIPTIONS will be received at less than four dollars a year, except in clubs of five or more, or through club or Grange agents who have sent five or more subscriptions during the year.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, June 10, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Effect of Water on Alfalfa; "Stump the World;" West Side Irrigation, 369. The Week; The Youthful Spirit and the Farm; To Encourage Correspondents; Caterpillars, 376. McCall's Road Grader, Ditch and Levee Machine; Faulkner's Excelsior Family Fruit Drier, 377. Patents and Inventions, 380

ILLUSTRATIONS.—"Stump the World" Peach, 369. Faulkner's Excelsior Family Fruit Drier; Double Hitch Bell Hook; McCall's Road Grader, Ditch and Levee Machine, 377.

CORRESPONDENCE.—The Centennial at Philadelphia—No. 4; Sacramento River Vicinity. 370.

SHEEP AND WOOL.—The American Merino in Western New York, 371.

POULTRY YARD.—Dead Ducks, 371.

THE SWINE YARD.—The Profit in Pigs, 371.

HORTICULTURE.—Borers, 371.

STOCK BREEDERS.—Treatment for Blindness, 371.

PATRONS OF HUSBANDRY.—Notes Among the Granges; A Field for Grange Work; Grangers' Business Association; In Memoriam; Golden Gate Grange; The Warehouse and Wharf; Meeting of Eden Grange; Crop Insurance, 372.

AGRICULTURAL NOTES from various counties in California and Washington Territory, 373.

HOME CIRCLE.—Happy Thoughts (Poetry); An Every-Day Story; Needlework at the Centennial; Duty of the Press; The Propensity to Fib; George Washington and His Equipage; Leaves from my Scrap Book; Missed 'em Seven Times. 374. Diversity of Gifts; Mark Twain as a Horse Buyer, 375.

YOUNG FOLKS' COLUMN.—The Farmer's Daughter (Poetry); Boys, Do Something; Toy Making, 375.

GOOD HEALTH.—Is Medicine a Science? The Effect of Worrying; Diet, 375.

DOMESTIC ECONOMY.—Science in the Kitchen; The Irreproachable Way to Broil a Steak; Vanilla Custards; Ground Rice Cake. 375.

QUERIES AND REPLIES.—A Way to Poison Squirrels; Eruption Caused by Strawberries; Central American Table Land; Grafting Roses; Raising Dogs; Poultry Disease, 377.

NEW ADVERTISEMENTS.

Lands For Sale, Lake Vineyard Land and Water Association, Los Angeles Co., Cal.; Ayrshire Bull For Sale, A. B. Rowley, Mayfield, Santa Clara Co., Cal.; Fire Insurance Company, Chas. W. Dohrmann, Manager, Stockton, Cal.; Poultry Business For Sale, M. Eyre, Napa, Cal.; New Feature in Life Insurance, James Munsell, Agent, S. F.; Fruit Drier, J. W. Cassidy, Petaluma, Cal.; Sweepstakes Thresher, Frank Bros. & Co., S. F.; California Fruit Drier, Sacramento Plow Manufacturing Co., Sacramento, Cal.

The Week.

The harvest combat thickens. The hay crop is gathered in most localities. The headers are now mowing their wide swaths in the grain. The barley falls first, but the wheat crowds close upon it. The new barley has already made its appearance in the city market.

The rain of week before last extended over a wide area and caught some hay, doing occasional but not any general harm. It varied greatly in its weight of water, grading from bait an inch down to a sprinkle. No fears of its result on the grain are expressed, the cool and active air chasing the rust fiend from his banquet.

The evil of the frost proves to be less than expected, even in the counties which suffered most, and the foothills will do good things in some points despite black frost and white snow which fell upon them.

The whole outlook throughout the State is one of action and promise.

CALIFORNIA SILK WORMS AT THE CENTENNIAL.—A dispatch from Philadelphia, dated June 6th, says: Joseph Neumann of San Francisco exhibited six thousand silkworms to-day in the agricultural department. On his way here his stock of mulberry leaves was exhausted at Council Bluffs, Iowa, and the worms were without food for several days, and a few died on the route. The proper food is plenty in Philadelphia, but no cases being ready for their reception, the consequent lack of protection from draft is killing some of them. The remainder are in large open boxes and have begun making cocoons. The spectators handle them in spite of watching, and some have been stolen. The display attracts much attention. Male and female moths are also shown. Two large flags, the only ones ever made in California, are to be displayed in the main building.

The Youthful Spirit and the Farm.

When the youth begins to think thoughts of manhood, he thrusts an eager interrogation point into the various methods by which men bring themselves into contact with the world. Then it is that life upon the farm often seems distasteful to him. He thinks, and older men too often encourage the opinion, that farming is a complete science, that there is nothing more to learn about it, that the methods which have been applied cannot be improved, that all a young man upon a farm can do is to tread again well beaten paths. His is encouraged to think that the farm has no capacities for further development. Is it any wonder that the yearning for progress, the impulse to push forward which every worthy young man feels strong within him, find no scope for exercise upon the farm? Is it any wonder that he turns from it when he thinks it complete and devoid of opportunity? And what does he perceive elsewhere? In all the professions he beholds a ceaseless struggle for the possession of new truths and new methods for applying them to the health, the happiness and the salvation of the race. In the commercial callings he sees a constant effort for new means and materials for gaining wealth and position. In the manufacturing industries he hears of new ways of applying physical power, the inventor following close upon the progress of the scientific discoverer, the exciting story of a fortune in a day by a new and happy thought. Everywhere there is ceaseless activity, continual progress, and success attained as success was never attained before. Can any one wonder that a strong and ambitious young man yearns to try his strength and skill where every one is moving and the prize is to him who pushes farthest onward? Can any one be surprised that he tires of revolving routine at home when elsewhere every occupation is elastic, expansive and progressive?

The young man often turns from the farm because it does not seem to answer the progressive longings of his nature, and does not afford an opportunity for the attainment of his ambitious. He longs for something upon which he can stamp the impress of his individuality. He must have something which will give him a chance. Then it is that the stories of heroes recur to him. Then it is that the lives of youths who have escaped from the farm and become millionaires, scholars, leaders in thought and action, senators, governors and presidents pass before him, each strengthening a resolution nearly formed. Feeling within himself a self-trust—a confidence which is natural to youth and strength—he does not stop to trace closely the qualities of greatness. Each hero has done one thing. Early in life each has cast off his shackles—he has left the farm. The logic of events, as he reads it, imparts a resistless impulse. These men have become great by getting out into the world. The success of each says to him, go thou and do likewise.

He is not wise who treats this hopeful, nervous restlessness of a young man except in a single way. To repress it is to make its possessor a careless, indolent, satisfied cipher in the account of life. To place fetters upon it is to make him fretful and discontented, a burden to himself and a vexation to the community. There is but one way to operate successfully and in a salutary manner upon the spirit of a young man, and that is in guiding it in enabling it to perceive the dangers which beset the various paths which lie open, and to reveal opportunities where all now appears fixed and chanceless.

This is the duty which now presses upon the men who have in their keeping the present and future of agriculture in this country. They cannot hold their sons upon the farm by recounting the dangers to which young men are exposed in great cities. If a young man is shown that only one in a hundred of those who leave farms to engage in professions or commercial industries succeeds, he will decide that he will be the one and not a part of the ninety-nine. If he be shown that city life is enervating and that he will become old before his time, he will contract his arm and smile upon you over a swelling mound of muscle. It will not do; you cannot frighten him with thoughts of early weakness nor a vision of speedy burial; you cannot frighten him with details of the wickedness which lurks in secret places. Another policy must be adopted. He must be shown that agriculture is not a finished book. He must be shown that its brightest and noblest pages are still to be written. He must be made to see that there are capabilities for progress as great upon the farm as elsewhere. In short, he must be shown the facts as they exist.

THE FAST TRAIN.—The lightning train overland from New York city, which we described in our last issue, left New York city at 1 A. M. on Thursday, June 1st, and arrived at San Francisco at 9:45 A. M. on Sunday, June 4th, making the whole distance of 3,200 miles in 83 hours and 59 minutes. The train excited the people all along the line, and was met in San Francisco by a multitude. The "run" of the train must be regarded as one of the greatest railroad feats of the day.

To Encourage Correspondents.

There is constantly recurring evidence of the valuable services performed by earnest, intelligent and persevering agricultural writers. We prize every item of news which indicates that labor in this direction is generally appreciated. The PACIFIC RURAL PRESS is unsurpassed in this country in the number and quality of its wide-awake and practical correspondents. We cheerfully accord to them full praise for the aid they give us in preparing a paper which shall reflect the truest progress in all agricultural endeavors. We value their favors highly and we trust that as the circulation of our paper grows each week, so each week we shall receive in still greater abundance the notes of actual trial, experiment and experience, such as only thoughtful and practical men and women can prepare.

We find in our English exchanges a notice of the substantial recognition which the English farmers have bestowed upon a gentleman who first became known to them through his articles in an agricultural paper. Recognizing in his writing a disposition and ability to treat subjects pertaining to their interests, the English farmers first made him a member of parliament. Here he was untiring in forwarding the work which he espoused in his letters to the farmers' papers, and his fame and usefulness increased continually. He was the champion of that great class of English workers called tenant farmers. He secured a position which the aristocratic government was forced to recognize, and he was appointed to high office in the government. Here he discovered that he was to be bound hand and foot by the powers which be, and he promptly asserted his independence and the strength of his cause by resigning his office at great sacrifice to his personal prosperity. His firm friends, the farmers, recognizing his last act as evidence of continued truth to them, instantly set at work and raised among themselves the comfortable sum of $30,000, which was presented to their champion with words of praise and thankfulness for the stand which he had taken. Thus the English farmers have honored Mr. Clare Sewell Read, whom they first knew as an agricultural writer.

In this occurrence it seems to us there may be found much encouragement for the earnest and intelligent agricultural writer. It may not be that any of our contributors will be honored in just such a way as the English writer, but we are sure that American readers will be just as prompt to honor those who do them valuable service as are their English brethren. It is for the true worker to labor for the cause in which he believes and trusts irrespective of any reward save a consciousness of well doing. This is a noble work and thus the English writer worked for the farmers until they, of their own will, bade him go up higher. Thus we urge our contributors to work, as we ourselves shall shall work continually to advance in every honorable way the interests of the world's honorable workers, the agriculturists. Let us advance the farm in every direction in which increased knowledge and understanding of all farm efforts and aspirations can advance it. Let us all contribute whatever we possess to secure better and more productive work, and more happy and prosperous men and women. Let a flood of light illuminate every item of agricultural practice and policy. If any one needs light let him ask it; if any has light let him give it. Thus working all together and each giving and receiving the teachings of experience and research, no one can measure the progress and development which shall be the portion of the agriculture of this coast in the near future. We invite all our readers to the honorable contest to determine who shall do the agriculture of the coast best service. Let each throw upon us the light that is in him or in her, and we will cast the reflected ray into 10,000 homes. The mirror of the RURAL PRESS is set up in the sight of all. We shall keep it bright and shining. Send on your little individual rays, good friends, that we may reflect full light upon all who may now work in doubt or darkness. No matter how small the light may be, if it be new and true, flash it on us.

HANDSOME WHEAT.—We have received from Joseph Burns, of Kings river, Fresno county, a bundle of handsome heads of wheat, of the Australian White variety. Laying a measure alongside a number of the heads we found the average of the bunch to be fully six and a half inches. The longest one measured was seven and three-fourth inches, and the shortest six inches. Of the sample Mr. Burns writes: "The wheat grew upon black adobe land without plowing. In fact, it had no cultivation except a light harrowing when sown in November. These are choice heads of course, but they were gathered from different parts of a 50-acre field and there is plenty more just like them left. Mr. W. A. Sanders mentioned the field in his communication to the RURAL PRESS some time ago." Mr. Burns suggests that these heads be transmitted to the Centennial. They are well worthy of such distinction, and we shall hand them over to the committee in charge of the California display.

THE CALIFORNIAN is the title of a new 32 page monthly started in this city by Edward Isaac Dobson.

Caterpillars.

EDITORS PRESS:—The question with us just at present is not, what shall we do with our boys, but what *shall* we do with the caterpillars? It is becoming a question of immense importance to us, and I fear, sooner or later, to orchardists in general. At present our orchard is a sad sight to behold. In fact there is nothing but caterpillars and the bare trees. In our orchard of 30 acres there is scarcely a leaf to be seen. It looks as though the fire had swept through it, and there is every prospect that the trees are ruined. With the exception of peach, fig and walnut, the caterpillars do not seem to be very particular as to what kind of orchard trees supply them with food. Of shade trees, poplars and locusts seem their favorites, but except evergreens and gum trees there seems to be nothing that they will not eat, rose bush, flowering plant, or even fruit, for after eating the leaves from apple trees they will eat the apples. Although the vineyard is filled with them as they come from the orchard, they do not seem to molest the grapevines.

What is to be done? Our own orchard is probably ruined, and we shall have to cut it down root and branch; but there is still time to save others, if people will be up and doing. We have been making a study of this pest of late, and have come to the conclusion that the only safety is in *close winter pruning*, being careful to burn the brush soon.

When the caterpillars get their growth they form in cocoons, from which in turn hatches a moth or fly. The fly deposits innumerable eggs near the end of the limbs or twigs, which hatch the following spring, mostly, I think, during April and May. The blight of their season is a little passed now, although we still find them in all stages, from the little one just hatched from the egg to the moth emerging from the cocoon. In a cold, wet spring, I presume their season would come later than this year.

If there is any remedy, other than I have suggested, will not the PRESS or its correspondents come to the front?—S. J. W., Santa Clara, Cal.

EDITORS PRESS:—The caterpillars are doing great damage here in some of the orchards. Pear and apple trees suffer most; cherries have been attacked some, but the peach tree is doing well with an abundant crop. Pear trees in Mr. Watkins' and also in Mr. Gould's orchard are entirely destitute of any foliage. Now, not a half a mile from these orchards is Mrs. Paray's, in which there is hardly a caterpillar to be found; the supposed reason is that a band of hogs is in there part of the time every year rooting around and destroying the eggs, or is it in the different kind of soil, the former having more sandy and drier soil than the latter?—N., Santa Clara.

Our friends are indeed suffering under a severe visitation, and it will be only at the price of vigilance that neighboring orchards can be preserved. We have fought this pest for years in Eastern orchards and after rooting out our own legitimate stock have been replenished again and again by tramp caterpillars from neighbors' trees. Indeed, if anything is hoped for in a closely settled district, there must be a common warfare waged in which all tree owners will do their share. If it be not so the effort of the individual will be only partially successful. A neglected orchard or row of roadside trees will furnish enough each year to colonize a community.

Our correspondent, "S. J. W.," mentions one of the most effective methods of extermination we know of, and that is cutting off the twigs and burning them and the thousands of eggs which inhere. "S. J. W." would winter prune closely, as we understand her writing above, without reference to selecting the twigs which contain the bunches of eggs—cutting off all to catch the many. We proceeded rather upon the plan of noticing the egg clusters and removing only the affected twigs. On a bright day the shining clusters of eggs may be easily seen. There are three or four hundred eggs cemented closely together and extending quite around the twig.

We have fought the caterpillar in this way during the winter and then followed it up by vigorous assaults on the "tents" as soon as they appear. We have burned them with a torch, we have shot them away with a shot gun, lightly loaded with powder and wad, and we have soaked them with lye, soap suds and kerosene. All these means of destruction are effective. We prefer soap suds, soaking and smashing the "tent" with a loosely rolled swab. If any of our readers have discovered a better remedy we should be glad to know it.

Our correspondent "N" mentions a supposed reason why one orchard in the vicinity is unaffected. The surmise is incorrect. The presence of hogs would have no effect at all upon the tent caterpillar. It lays its eggs in the tree and hogs cannot harm them unless they be some of the lean, agile breed of hogs which we sometimes read of. Hogs are of some use in reducing the ravages of the "codling moth" by destroying its larvæ, which are found in the inside of the apples which fall to the ground. The tent caterpillar does not penetrate the apple at all. What the reason why this individual orchard has escaped we cannot tell. We should not count on security at all, but keep a look out for the first comers.

A BUSINESS CHANCE.—M. Eyre Jr., our corresponding poultry editor, makes an announcement for himself in our advertising columns this week. He offers his place and flourishing poultry business for sale, because he intends practicing his profession, the law, and his agricultural business has so grown that it pushes the law to one side during the busy season. As can be seen by the advertisement, Mr. Eyre's business is large and increasing. So far as the PRESS is individually concerned we hope that some one will embrace the partnership proposition, for we do not wish to lose Mr. Eyre from the poultry circle quite yet.

ON FILE.—"Botanical Excursions," J. G. L.; "Grape Culture and Gratting," J. B. J.; "Agricultural Education in Germany," J. W. A. W.; "The Champion Fruit Drier," "Inquiry concerning Iron Pipe," S.

DIED.—At F. M. Kittrell's ranch, June 6th, Miss Permelia, daughter of W. B. and Malinda Harp, of Modesto, aged 20 years and 2 months.

QUERIES AND REPLIES.

A Way to Poison Squirrels.

EDITORS PRESS:—Take a chilacota, (a wild nut), stick the point of a penknife in the chit; split the nut a little so as to get your thumb nail in to hold it open, then take pulverized strychnine on the point of the knife and insert; withdraw the thumb nail, pinch the nut together and pull out your knife. Now put the nut anywhere on your ranch and count yourself one squirrel less. I do not care what there is for them to eat, they will eat a chilacota in preference to anything. Last year they took my crop and this year I took them. Enclosed you will find one of the nuts; I do not know that chilacota is the proper name; there are a great many growing on the high parts of Santa Clara valley.—A. W. MUSSEY, San Diego.

Irruption Caused by Strawberries.

EDITORS PRESS:—Quite an excitement has been caused in Oakland by a Chinaman breaking out with an irruption on his skin which some parties took for small pox. The Chinaman cleared out and returned in a day or two perfectly cured. He said he stopped eating strawberries and got well. I have heard of a case of a hired man becoming sick from the same cause and cured by abstaining from the fruit. Have you ever heard of an itch caused by strawberries?—READER, Oakland.

We have felt an itching *for* strawberries early in the season when they were very high, but we never heard of an itch produced *by* them. Who has?

Central American Table Land.

EDITORS PRESS:—Can you tell me whether wheat is raised on the Andes, under the equator, and what kind of temperature prevails on those table lands; also on the Rocky mountains, in that stretch where Central America lies.—J. D., Hill's Ferry, Cal.

On the table lands of the Andes, between the tropics, is a climate suited for the production of all kinds of grain, but particularly of wheat, barley and rye. The altitude of these lands is between 6,000 and 9,000 feet above the level of the sea. In this region also the oak flourishes. The temperature is such as prevails in the temperate zone. This statement applies to all the mountain land in Central America. The Rocky mountains, so called, do not extend into Central America, but come to an end at the northern boundary of Mexico.

Grafting Roses.

EDITORS PRESS:—I have some questions to ask, which I would like to have answered through the columns of your valuable paper, which I have no doubt but what some one of your many readers can do with ease. First, I want to know how to graft rose bushes to insure success, and to know whether the rose can be grafted on any other shrubs of a different species; if so, what are they, and how can it be done? I also want to know what time in the year is the best for grafting, if there is any difference.—A. W., Springville, Ventura county.

Who will favor us with article on this subject?

Raising Dogs.

EDITORS PRESS:—In your last I see inquiries for a remedy for distemper in dogs. I have raised dogs and as fine pointers as ever pointed and never had any trouble about sickness. In the first place I feed them vegetables, mostly boiled potatoes with the skins on, as soon as they commence to eat until they are a year old; I give them no meat but bones, with the meat picked off clean, to help cut their teeth. I give them oat meal boiled and mixed with their potatoes, and put in such scraps as come from the table. When the skin about the nose begins to be dry (in health it is always moist, and looks sweaty and cold to the touch), I give a tablespoonful of sweet oil, then watch the result. If the dog remains costive, I get some buckthorn syrup, and with a teaspoonful mixed with a tablespoonful of water, I take the dog between my knees and with my left hand hold his upper jaw strong and solid, point the spoon in his mouth outside of his teeth as far back as I can get it to go in his lips and pour the liquid down back of his teeth. He has to swallow, as it runs down like going in a tunnel. He will not want the dose repeated for two or three days. The great trouble is that good dogs are dosed too much. Poor dogs are not worth bothering with. Don't be afraid that the dog will starve himself. A little boiled rice for him to eat is good and easy to digest. If he does not eat it at first put a little meat gravy on it and leave it awhile; if he does not eat it in five or six hours, throw it away and repeat it anew. If he is troubled with worms the same remedy will answer. Always partly cook all meats.—J. D. KNOX, Napa.

Poultry Disease.

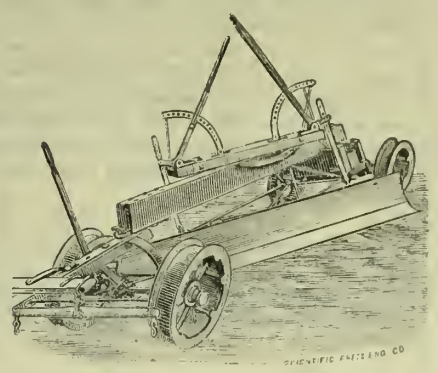
EDITORS RURAL PRESS:—There is a peculiar disease affecting the poultry in this vicinity. They appear dumpish for awhile, then one or both legs become paralyzed and they soon die. Can you suggest a remedy?—F., Livermore, Alameda Co., June 1st.

Give three or four tablespoonfuls of strong alum water twice a day. If the fowl be too far gone to eat, beat up an egg, raw, in alum water and feed. I use a funnel and an india rubber tube, introducing the latter into the crop, as the best mode of administering food or medicine to a fowl. Feed stimulating food; confine in a warm and dry place. As soon as a fowl looks "dumpy," mix soft food (bran and shorts) with alum water and feed it; if it will not eat the food on account of the astringent taste of the alum water, add some meat liquor or soup and the food will not be refused. In PACIFIC RURAL PRESS of February 12th, 1876, the cure and the preventive of this disease are given. The same will apply to the disease here described.—M. EYRE, JR.

INJURY TO SILKWORMS IN FRANCE.—The *Salut Public* of Lyons says of the silk crop: "By degrees, as we advance in the season, a better idea can be formed of the harm done by the frosts of the 13 th and 14th of April to the mulberry trees. The evil is unfortunately very real, and will have a very considerable influence on the production of the year, which, beyond doubt, will be very small in France. Many breeders have been obliged to throw away their seed for want of leaves to nourish the worms. The departments of the Vaucluse, Gard, Var, seem to have suffered the most. In the higher parts the damage is not so great; the eggs had not yet been put to incubation, and the vegetation was late. In Italy, the cold has done no harm, but even there a serious delay has occurred in vegetation, and the bad weather still continues."

McCall's Road Grader, Ditch and Levee Machine.

We give on this page an engraving of a machine which has come into wide favor because of its useful and effective work. It has been proved in all its lines of work. As a machine for road making it is worthy of consideration from the fact that the supervisors of of five counties, Santa Clara, San Mateo, San Benito, Monterey and Santa Cruz, have purchased it for road work in their counties after full examination of its merits. As an instance



McCALL'S ROAD GRADER.

of its road making, Moses Davis of the Davis & Chapman tract, states that he graded five miles of streets in 11½ days with 10 horses and two men, without plowing. It was in the month of August in dry, hard adobe. In ditch and levee making it has been used on Roberts' island, near Stockton, by Mr. J. P. Whitney and pronounced most successful. On railroad work Messrs. Turton & Knox, of Sacramento, state that the machine is equal to 90 men with shovels or 40 horses and 26 men with hand scrapers. We present this evidence to show the character of the machine.

In addition to the above we would mention that Mr. McCall's apparatus took three premiums at the last State fair, one in each branch of its work, viz: one as an open ditch plow, one as a ditch and levee machine and one as a farm and road scraper. A contest before a committee of supervisors and citizens at Stockton last year resulted in Mr. McCall's favor.

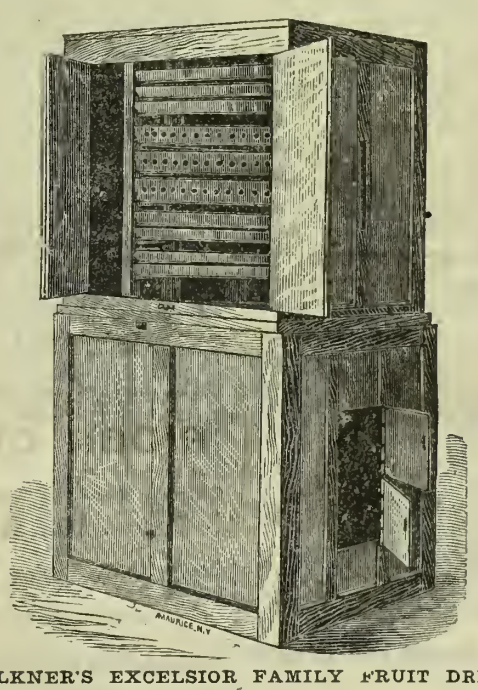
This machine, as shown by the engraving, consists of one main beam, supported by four strong iron flanged wheels, with peculiar and ingeniously contrived axletrees, which, by means of a ratchet lever, are adjusted so as to set the wheels bracing and tipped to any desired pitch, either to the right or left, thereby counteracting all side pressure. The moldboard or blade is all made of steel, 17 inches wide and 10 feet long, including a shear like that of a plow, deeply concaved. This blade is supported under the main beam, and attached by connecting rods and levers to a turn table on top of the beam, so as to be lowered or raised at will, or turned at any desired angle, throwing a furrow either to the right or left, or square with line of travel.

For grading uneven land, cutting off the high places and depositing its load in the low, the center of the blade is pivoted on a V shaped push bar, the wide ends of which are strongly hinged to a false bolster, or cross timber, near and just in front of the hind axle. This main push bar holds the blade from being moved sideways by any pressure of earth against it, but allows it to raise or lower, as desired. The turn-table on top of the beam turns always with, and at the same angles of the blade, and forms a platform on which the operator stands to regulate the working of the machine. It may be worked with four horses, and as many as 20 have been used, but usually 10 or 12 horses are employed. Information concerning the machine may be obtained by addressing the McCall road grader, ditch and levee machine company, at San Jose, Cal.

Faulkner's Excelsior Family Fruit Drier.

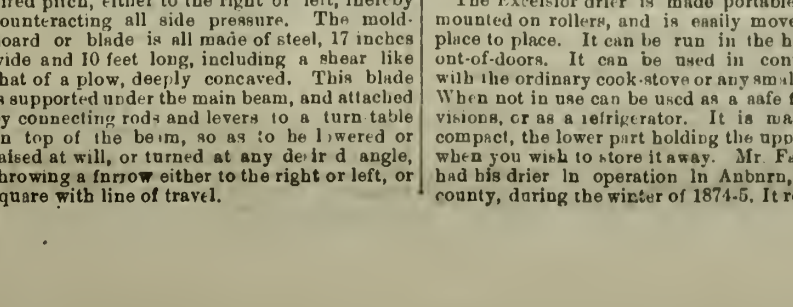
We take pleasure in calling the attention of our readers this week to another candidate for public favor: Faulkner's Excelsior portable family fruit drier. This apparatus is put forth to fill a long-felt want, hitherto unsupplied. The public have long called for a low priced, economical family fruit drier, one with which the fruit growers can save their surplus fruit and convert it into money or its equivalent, trade at the store. California has established a world wide reputation for its dried fruits through the products of Alden, Smith, of Baltimore, Plummer, and others. The Excelsior drier, it is claimed, will turn out goods equal in quality to any other drier. The frosts of April 5th and 6th, 1875, destroyed most of the fruit, therefore the supply of dried fruit was small. The stock on hand is exhausted, and the certainty of large crops and good demand this year makes it to the interest of all fruit growers to save all they can.

The Faulkner family drier has one great advantage in being very low priced: $65 to $75, with more drying surface than some others costing much more. It is plain and durable in its construction and very simple in its management. Any child can attend to it. By watching the thermometer in the front part they can regulate the heat accurately by closing the lower registers and shutting off the heat, or opening the top ones let the heat escape. By use of the reserve hot air chamber the heat can be forced into any part of the drying chamber requiring it, thus drying the fruit equally in all parts of the chamber. By this arrangement one of the main objections to fruit driers where the trays are one above the other is overcome. By the use of the reversible trays the fruit can be turned in a moment without handling it. The reserve hot air chamber and reversible trays are advantages possessed by no other drier.



FAULKNER'S EXCELSIOR FAMILY FRUIT DRIER.

The Excelsior drier is made portable, being mounted on rollers, and is easily moved from place to place. It can be run in the house or out-of-doors. It can be used in connection with the ordinary cook-stove or any small stove. When not in use can be used as a safe for provisions, or as a refrigerator. It is made very compact, the lower part holding the upper part when you wish to store it away. Mr. Faulkner had his drier in operation in Auburn, Placer county, during the winter of 1874-5. It received the approval of the principal fruit growers and residents there. The sale of the drier is in the hands of the leading houses in their lines in many of the cities East, including B. K. Bliss & Sons, New York, Messrs. Vick & Co., Rochester, and others. It is manufactured for the Eastern States by Messrs. Jas L. Lockwood & Co., Stamford, Conn., and by Mr. E. T. Steen, 226 to 232 Beale street, San Francisco, for California, etc.; also, for sale by Messrs. Strong & Williamson, Clay street, S. F; Messrs. W. R. Strong & Co., Sacramento; Mr. I. Fongeron, Auburn. County rights and information of all kinds concerning the drier can be had of the inventor, J. W. Faulkner, 31 Beale street, S. F.



DOUBLE HITCH BELT HOOK.

consists of one main beam, supported by four strong iron flanged wheels, with peculiar and ingeniously contrived axletrees, which, by means of a ratchet lever, are adjusted so as to set the wheels bracing and tipped to any desired pitch, either to the right or left, thereby counteracting all side pressure. The moldboard or blade is all made of steel, 17 inches wide and 10 feet long, including a shear like that of a plow, deeply concaved. This blade is supported under the main beam, and attached by connecting rods and levers to a turn table on top of the beam, so as to be lowered or raised at will, or turned at any desired angle, throwing a furrow either to the right or left, or square with line of travel.

FINELY FINISHED MACHINES.—We are much interested in the description of handsome work which comes to us concerning the agricultural machinery which is prepared for the eyes at Philadelphia. Here is a note concerning the Walter A. Wood's mowers and reapers, which would seem to be very beautiful. The Troy (N. Y.) *Times* says: "The machines are almost marvels of artistic workmanship, quite handsome enough for parlor ornaments, and sufficiently strong and durable for the practical purposes of husbandry to which they are to be put after their exhibition. We need not enlarge upon them further than to say that they are made of the usual materials which are employed in the manufacture of the company, most elaborately finished and beautified. The woodwork is painted in vermilion, black and gold; the ironwork is nickel-plated—all the parts being polished to a surprising degree. The machines represent one each of the several manufactures of the company, and are to be set up in the Centennial buildings with power attachment ready for operation at all times. The boxes, seat-standards and levers are in black walnut. Each machine bears the motto, "*Labor omnia vincit*,"—labor has conquered all things—together with the company's monogram and emblematical designs of chaste and exquisite workmanship."

A WONDERFUL ATTACHMENT.—We see by our Louisiana exchanges that Southern cotton growers are being excited by columns of laudatory comment on an "attachment" to the common card, which is able to manufacture cotton thread directly from the seed, and consequently throws out all necessity for ginning, pressing, baling, shipping to distant markets, where expensive pickers and cards are necessary to overcome the evil done to the fiber by ginning and pressing. In short, the so-called "attachment" will bring all the work which is now done by thousands of factory operatives into the compass of a two by four feet attachment, and this will be set at work on the plantation instead of in some distant city. In even shorter phrase, the "attachment" will make the planter a manufacturer as well as a grower of cotton. If an attachment is already devised to spin the thread directly from the seed we see no reason why another story to the attachment could not weave the cotton cloth, still another story make it up into "all wool" garments, and for a flagstaff to the structure, let there be set up a typical Hebrew to dispose of the stock to the passing stranger. This would be a self-sufficient industry.

AN ESTATE IN SAN DIEGO COUNTY.—Readers have doubtless noticed the advertisement of Lee H. Utt of San Diego county, in which he offers for sale a share in the estate called "Aqua Tibia" in Pala, San Diego county. Mr. Utt, as we are informed, has brought his property into a fine state of development and finds that its management requires the time of two men. He cannot secure hired help to take an interest in the work and stay permanently as he desires, and so he asks for a man to take half ownership and assume the active control of the property. It is an opportunity which we consider worth looking into.

IMPROVED BELT HOOK.—We illustrate on this page Sherman's patent double hitch belt hook, which is being introduced on this coast by T. S. Bailey, of Batavia, Solano county. This hook retains its original shape in the belt, and can be used until worn out. It is an excellent substitute for lace leather, being much cheaper and easier of adjustment. The cut conveys a correct idea of the manner of adjusting these hooks. It will be observed that the substantial double bearing of each hook precludes the possibility of "tearing out." The hooks can be had of Dunham, Carrigan & Co., S. F.

PERSONAL.—We have had a call during the week from Mr. Andrew Clemmens, one of the patrons of the RURAL PRESS, living near Hueneme, Ventura county. Mr. Clemmens has been seeking some pure blood Poland China hogs, and cannot understand why breeders do not advertise them. He is doing everything he can in his farming operations for improvement of his lands and stock, and is evidently a driving and progressive farmer. He reports crops as very fine in his locality.

MR. C. G. AKAM, of the Whitney Manufactory Co., Paterson, N. J., is in S. F., perfecting arrangements for introducing the Whitney sewing machine on this coast. Mr. A. represents a large established and flourishing firm, whom we believe are destined to do an extensive and satisfactory business with the people on this side of the continent.

THE ONLY RELIABLE

STRAW BURNING ENGINES.

RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last session to the largest farmers and best threshers in different parts of the state, and gave the very best satisfacton, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be prosecuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Marcus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Pacific Coast, and all orders should be addressed to them.

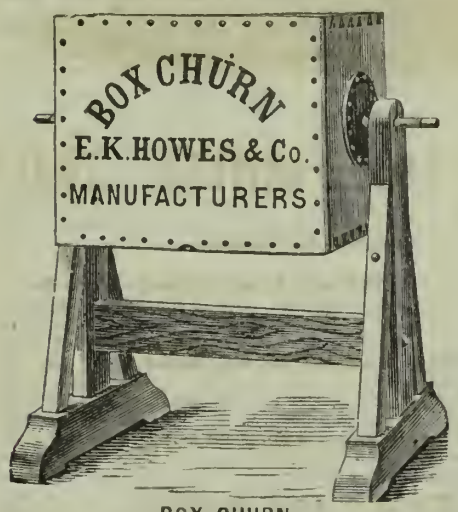
SAN FRANCISCO, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street San Francisco, and corner Second and J streets, Sacramento.

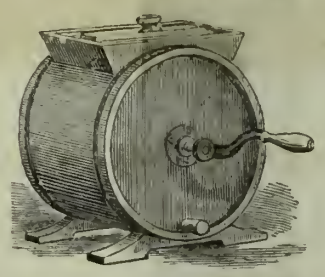
P3eb78tf MARCUS C. HAWLEY & CO.

E. K. HOWES & CO.,

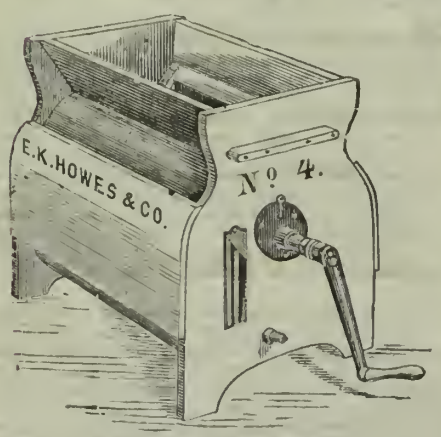
NOS. 118, 120 and 122 FRONT STREET, - - - - SAN FRANCISCO.



BOX CHURN.



CYLINDER CHURN AND DASHER.



THERMOMETER CHURN.

BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers and Molds, Butter Tubs, (35, 50 and 60 Pounds), Butter Kegs—Plain and Gal. Hoops—Wholesale and Retail.

Send for Price-List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired.

THE MINING AND SCIENTIFIC PRESS is one the best papers published on this coast. It should be in the hands of every miner and mechanic in the State. The issue of last week contained one xcellent article on the old product of this coast.—Oroville Mercury, Jan. 28.

50 **Visiting Cards,** with your name finely printed, sent for 25c. We have **100** styles. **Agents Wanted. 9** samples sent for, stamp. A. H. Fuller & Co., Brockton, Mass.

STRAW BURNING ATTACHMENT.

KING'S PATENT.

The Only Successful Burner Yet Introduced.

Having secured the exclusive right to manufacture and attach to engines J. R. KING'S PATENT STRAW BURNING ATTACHMENT, I respectfully invite the attention of the threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

MODESTO, October 9th, 1875.

MR. J. R. KING—*Dear Sir:*—We have used your Attachment on our Automatic Hoadley Engine the past two seasons; it furnishes all the power necessary to run our large Pitts Separator with a Jackson Feeder attached; it more than gave satisfaction to all the farmers for whom we threshed; it required but little straw to furnish the necessary amount of steam; our engineer had a boy to fire it, and he attended to the Separator and Engine; it was much safer than a wood burner, for when we wished to stop or move, all that was necessary was to close the door and everything was perfectly safe. We used no spark arrest, as there were no sparks to arrest. It was a perfect success in every particular. Yours, etc., BENTLY & YOUNG.

LINDEN, October 16th, 1875.

MR. J. R. KING—*Dear Sir:*—Having used one of your Straw Burner Attachments on my Ames Engine (wood burner) No. 3, I feel it my duty to state that it proved to be far more than I expected. It furnishes sufficient power to operate my large Pitts Separator. I have seen several regular Straw Burning Engines in operation, and would not exchange for any small consideration. I used it all the season without the least difficulty and know it is a success. Yours, etc., J. H. DUNCAN.

The following parties used my Attachment on their Wood Burning Engines last season: Covert & May, Grayson, Stanislaus county; W. H. Gilmore, Stockton, on an old style Hoadley Engine, 8x12 cylinder; Morse Bros., Modesto, Stanislaus county; C. F. Leavensworth, Modesto, Stanislaus county, old style Hoadley, 8x12 cylinder. On the 13th of May, at Stockton, in a test of Straw Burning Engines, a very lively competition ensued between the different styles and patterns of machinery, particularly between the two Straw Burning Engines. My Attachment claims superiority and preference over all others on account of its adaptability to all styles and patterns of wood or coal burning engines, to which it can be fitted. It has a conical feed tube or funnel, through which the straw is fed to the fire box, the interior arrangement of which is also peculiar, containing a half set of coarse grate bars standing six to ten inches high, and adjustable to any hight desired and sloping toward the front. In front of the tubes a circular concave plate is so arranged as to cause the draft to first strike the top of the boiler and then draw down behind the plate through the small flues. Engines rigged with this burner are absolutely safe from sparks, there being no necessity even for a spark arrester on the smoke stack. To show how rapidly it makes steam we add the following record of its performance on Saturday, attached to a Gaar, Scott & Co.'s portable engine: The fire was lighted with the boiler partially full of cold water, (two gauges cold) and in 25 minutes the whistle was blown, the gauge showing a pressure of 10 pounds of steam; in 30 minutes, 20 pounds; in 32 minutes, 30 pounds; in 34 minutes, 40 pounds; in 35 minutes, 45 pounds; in 37 minutes, 50 pounds; in 38 minutes, 55 pounds; in 40 minutes, 60 pounds; in 42 minutes, 65 pounds; in 45 minutes, 70 pounds; in 47 minutes, 80 pounds; in 49 minutes, 90 pounds; in 50 minutes, 100 pounds. On reaching a pressure of 100 pounds the barley mill, to which it was attached by a belt, was started and run to its full capacity, grinding at the rate of two tons per hour; during this time steam raised to 130 pounds, pumping more than a full supply and frequently blowing water out of the boiler; then stopped firing until the steam gauge indicated 80 pounds; commenced firing again and got 140 pounds in 25 minutes; water raised in boiler to three gauges; mill run to full capacity all the time; this was a Gaar, Scott Engine, cylinder 7x13 inches; boiler, diameter, 29 inches; 27 flues, 2⅜ inches diameter, and 54 inches long; fire box, length, two feet eight inches.

The Attachment can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced county. Byron Jackson, Woodland, Patentee of Self Feeder, agent for Solano, Yolo and Colusa counties.

All orders addressed to J. R. King, Patentee, in care of the Globe Iron Works, or H. C. Shaw Plow Company, Stockton, will receive prompt attention. Send for Circulars.

JOHN CAINE, Proprietor Globe Iron Works, STOCKTON, CAL.

RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

Not a Valve, Spring, Cam, Lever or Eccentric about them.

ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.

Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

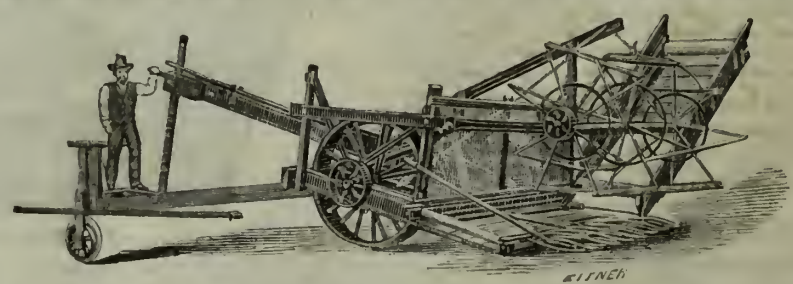
Send for Circular and Price List, or call and see one in operation.

HUNTINGTON, HOPKINS & CO.,

Sole Agents for the Pacific Coast,

Junction of Bush & Market Sts., S. F.

RICHARDS' IMPROVED HEADER



STOCKTON CHIEF.

This Header for stanchness of build, lightness of draft and capacity for securing fallen grain, has no equal on the Pacific Coast. The manufacturers offer it with full confidence that it will give perfect satisfaction to all who purchase and use it. Manufactured by

MATTESON & WILLIAMSON,

Corner of Main and California streets, Stockton, Cal.

D. H. WHITTEMORE, Worcester, Mass., makes a machine that at once pares an apple, slices off and separates. Warranted satisfactory. Price, $1 and $1.50 each. Sold by Dealers.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

HARVESTING MACHINERY,

MOWERS—Wood's Eagle, Peerless & Clipper.

REAPERS—RUSSELL'S PEERLESS.

HEADERS—Haines' Genuine Single Gear.

SEPARATORS AND POWERS.

Chicago Pitts, with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

Steam Engines.

ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

LYMAN'S SELF-FEEDER.

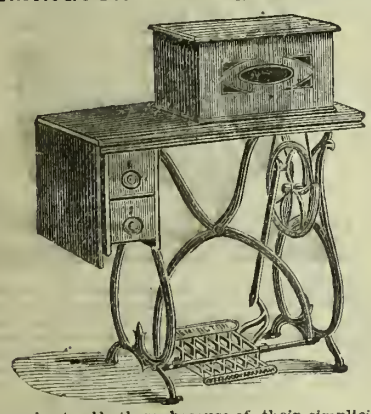
Invented by a practical thresher. Best in the market. Price only $150. It surpasses all others in durability and simplicity of construction. Can be applied to any Separator in a few hours, and taken off in 15 minutes. It is guaranteed to give satisfaction or no pay.

FULL SUPPLY OF "EXTRAS" FOR ALL OUR MACHINES.

Linforth, Kellogg & Co.,

Nos. 3 and 5 Front St., San Francisco, Cal.

REMINGTON SEWING MACHINES.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

SHOWERS, JEWELL & COLE,
629 Market st., under Palace Hotel, S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

LEA & PERRINS'
CELEBRATED
WORCESTERSHIRE SAUCE,
DECLARED BY CONNOISSEURS TO BE
THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of
Lea & Perrins' Sauce,
which are calculated to deceive the Public,
LEA & PERRINS have adopted
A New Label,
bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of
Worcestershire Sauce,
after this date, and without which none is genuine.

November 1874.

*** *This does not apply to shipments made prior to the date given.*

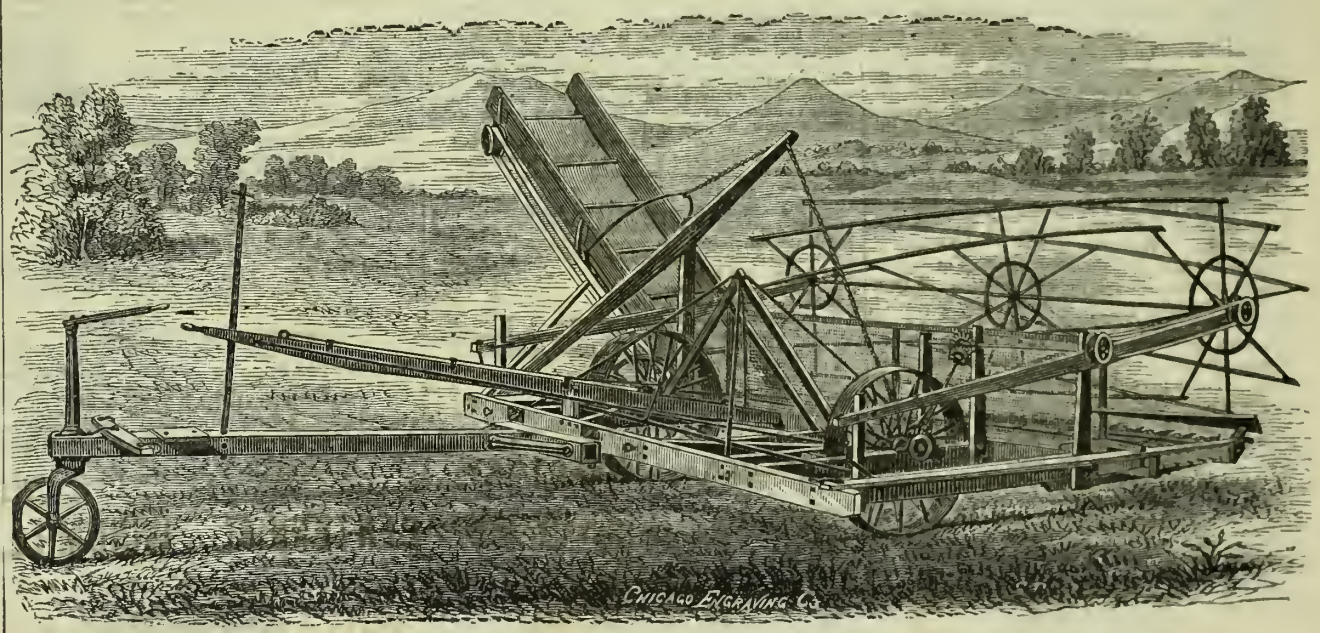
Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER,
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

KELLER & CO.,



IMPORTERS AND DEALERS IN

AGRICULTURAL IMPLEMENTS, MACHINES AND FARMERS' TOOLS.

We are Sole Agents for the following Celebrated Machines:

J. I. Case & Co.'s 18-horse Engines.

We guarantee these Engines to furnish more power, with less fuel, than any other make in the market. They are handsome in appearance, mounted on substantial trucks, and furnished with driver's seat, roller break and hand pump.

J. I. Case & Co.'s 40-inch Separators,

With large cleaning capacity, made expressly and just imported for this trade.

Pitts' Down and Mounted Powers,

HEAVIER HAINES' IMPROVED SINGLE-GEAR HEADERS.

These Headers are manufactured by the same party who has superintended the building of all Headers ever made for this trade. Knowing the wants of this market, he has added many improvements for 1876, which will be found on no other Header.

J. I. Case & Co.'s Improved Single Gear,
WITH ADJUSTABLE SPOKES AND REEL.

These Headers are so well and favorably known that we only add for the year 1876 they are better made than ever before. We have these headers in sizes of 10, 12, 14 and 16 feet.

Mowers.

EXCELSIOR MEDIUM MOWER, EXCELSIOR JUNIOR MOWER, ÆTNA MOWER, WOOD'S MOWER, PEERLESS MOWER, MEADOW LARK MOWER. The finest assortment of noted Machines ever kept by one house.

Header Wagons.

The reputation of Fish Bros.' Pacific Wagons is so well established that parties buying these Wagons know without doubt they have the very best in the market. We have a large stock of IRON AXLE HEADER WAGONS. We guarantee them to run two years without the resetting of the Tires.

Lock-Lever Steel Tooth Hay Rake,

Awarded the FIRST PREMIUM at State Fair last fall as the best Steel Tooth Rake. This is a self-dumping Rake, and stands without a rival.

Sulky Revolving Rake

Has become very popular as the best Winrowing and Bunching Rake. Also, a full stock of Revolving Rakes.

Harpoon Hay Forks.

The double harpoon is the only reliable Horse Fork for all kinds of hay.

Faust's Hay Loader,

The only successful Hay Loader in the world.

Buckeye Corn Cultivator.

This is either a Riding or Walking Cultivator. More of them in use than of other makes combined.

The Gorham Seeder and Cultivator,

The Only Reliable Seeder now in Use.

Barbed Wire for Fence,

Also, Single Barbs, separate from the Wire. They can be attached to any Wir Fence anywhere. They are immovably clasped around the Wire, after the Fence is built, with pincers furnished for the purpose.

Halladay's Windmills.

They are the Standard Mill the world over. Have gained a reputation as broad as its use is extensive.

Wagons, Plows, Cultivators, Harrows, Seed Sowers, Etc., Header Knives, Mower Knives, Sections,

AT HALF THE USUAL PRICE PAID OTHER DEALERS.

Our Goods are the best in the market. Our prices are the lowest. Our manner of trading is well known all over the Coast. Our Machines are so well and favorably known that farmers make no experiment when trading with us. Send for Circular and Price List.

Address, KELLER & CO.,
43, 45, 47 J Street, Sacramento, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

Dewey & Co. {224 Sansome St} **Patent Agt's.**

The Mining and Scientific Press,

Established 1860, is a Large, Ably Edited and Liberally illustrated Weekly—the BEST PRACTICAL MINING AND MECHANICAL JOURNAL in America. $4 per annum, postage paid. DEWEY & CO., San Francisco.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., June 6th, 1876.

FOR WEEK ENDING MAY 23d, 1876.*

LIFE BOATS.—James F. Cosgro, Santa Clara, Cal.

RAILWAY CARRIAGES.—Emannel Blochman, S. F., Cal.

TRADEMARK.

BITTERS.—Winder & Shearer, S. F., Cal., (two cases.)

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

HIGH WATER.—There has not been a season since 1862, the great flood year, says the *Record-Union*, that the waters of the great rivers in this State stood so high on the 1st of June as the present. The head waters of the Sacramento and the head waters of the San Joaquin and all the smaller streams running from the Sierra Nevada mountains are full to their natural banks. The confluence of these waters in Suisun bay makes a dam which throws the water back over the tule or swamp lands of the great valleys, to the great detriment of farming interests along the rivers. Were but one of the great rivers high the water would find an outlet and the tule water would run down, but as it is each backs up the other. The following information from the Stockton *Independent* will be of interest to farmers along the Sacramento at this time. That paper says: Tulare lake is overflowed with an unusual surplus of water caused by the excessive hot weather of late melting the huge snow banks at the heads of the streams tributary to that lake. In time of overflow the water of the lake is drawn off by Fresno slough, which empties into the San Joaquin. There is said to be more water in the upper river than has been known since the great flood of 1862. At Dover, in Merced county, the water is so high that it is with difficulty that goods can be hauled away from or brought to the river for shipment on account of the saturated condition of the soil. The banks are brimming full, and while it is good for navigation, too much of it is not pleasant for the farmers who are subject to a general overflow.

Fairs in 1876.*

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.

Mechanics' Institute Industrial Fair, S. F., beginning August 8th.

California State Fair, Sacramento, from Sept. 18th to Sept. 23d.

The Southern District Agricultural Society, from Oct. 5th to Oct. 14th.

Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.

Newspaper Fileholders.

Dewey's new elastic fileholders (black walnut), size of the PRESS, *Harper's Weekly* and *Scientific American*, for 50 cts. Larger sizes, to suit any newspaper, 75 cts. By mail, postpaid, 10 cts. extra. Cash with all orders. Patent allowed. Address, DEWEY & Co., Publishers, San Francisco.

L. F. MOULTON, of Colusa county, offers very cheap and on terms to suit hard times, some choice farms of best land in the State, on the line of the Colusa and Chico railroad survey. Forty bushels per acre has been raised this season on adjoining land of same quality.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO,

Patents Obtained Promptly
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.
Examinations Ordered and Reported by TELEGRAPH.
Examinations made of Assignments Recorded in Washington.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of Patents and Assignments.
Rejected Cases taken up and Patents Obtained
Every legitimate branch of the Patent Agency Business promptly and thoroughly conducted.
Send for Circular

Collateral Loan and Savings Bank, N. E. Cor. Post & Kearny Sts., S. F.

The attention of all our readers is called to the objects for which this Association is incorporated, which are to loan money on collateral security, to receive money on deposit, and to transact a general banking business. The prime object, however, is to advance money on pledges of diamonds, watches, plate, furniture, etc., subject to the legal rates of interest—four per cent. per month. The Bank will also receive term deposits, of six and 12 months, subject to at least 30 days' notice before being withdrawn, and allow interest thereon at the rate of one and one-quarter per cent. per month, respectively. Such deposits will be loaned out only upon proper securities and pledges.

The Bank will also receive deposits subject to call or check, and upon such deposits no interest will be allowed.

Many larger banks of this description have for years been in successful operation in Paris, and in all the principal cities of Europe, and in the City of Mexico, under the patronage of their respective governments. The institutions in Paris loaned out during the year 1873 the enormous sum of 54,000,000 francs, or about $10,800,000. More recently similar institutions, or banks, have been organized in Boston and New York City, under special charters from the States of Massachusetts and New York. No city in the United States offers such splendid inducements for an enterprise of this character as the city of San Francisco, where people are subject to peculiar and sudden reverses of fortune. The quantity of jewelry, plate, and articles of value which are pledged in this city yearly as collateral security, is enormous.

The bank will be managed upon strict business principles; at the same time to its safety and profit and with liberal dealing to its customers.

The stock of the Bank is 30,000 shares, of the par value of $50 each; which, until further notice, will be sold at the Bank at $10 per share. This will give a cash capital of $300,000, which, loaned out at four per cent. per month, will give a monthly return of $12,000, or $144 000 per year; less rent and expenses, say $14,000, will leave $130,000 per year to be divided among the shareholders.

The dividends will be declared monthly after the first two months' business.

The Directory of the Bank is composed of well known business men of San Francisco, and as such gives to its customers a guarantee of fair and liberal dealing.

Subscriptions for a large amount of Stock have already been received, and subscription books for a limited number of shares, at $10 per share, will, until further notice, be open at the Bank.

SOLON PATTEE, President.
F. S. CARTER, Secretary.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
G. W. MCGREW—Santa Clara county.
J. M. MCARTHUR—Los Angeles, Santa Barbara, Ventura, San Bernardino and San Diego counties.
A. C. KNOX—El Dorado county.
F. A. SCOFIELD—Sonoma county.
C. N. WEST—Santa Cruz county.
CHAS. E. SAJOUS—Philadelphia.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Colate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

EDWARD FRISBIE, on line of Cal. P. R. R., near Vallejo, Pure Bred Leicester Sheep For Sale.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emdeu Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,

No. 166 TEHAMA STREET,

Cor. Third, bet. Howard and Folsom, San Francisco

sowbp

Lands and Homes for Sale.

FOR SALE,

IN LOTS TO SUIT,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city—are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beandry, on Spring street, opposite City Council rooms. References may be made to HON. B. D. WILSON or J. DE BARTH SHORT, at Lake Vineyard, who will take pleasure in showing the lands. Also, to MAYOR BEAUDRY or D. FREEMAN, Los Angeles city.

Fine Dairy Farm for Sale.

An undivided half interest in a fine Dairy Farm of 640 acres patented land, all inclosed. One hundred acres is good agricultural land, on which fine crops of timothy hay, potatoes, apples, etc., are raised. Balance affords fine grazing for 100 head of cattle and is also handsomely timbered. Plenty of fine running water at all seasons, and a valuable mill site and privilege are on the land. A good cash home market for all the produce of the place. Improvements, a comfortable house, three large barns, farming implements, wagons, etc. Also 40 head of good milch cows, 60 head of young cattle, horses, etc. There is also a large outside range of from 2,000 to 3,000 acres held under possessory title. Will be sold at a bargain. For particulars apply to

BERRY & CAPP, 418 Montg'ry St.,
Real Estate Agents and House Brokers

FOR SALE,

A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

For further particulars, apply to

W. R. STRONG & CO.,

, 8 and 10 J St., - - - - Sacramento,

—OR—

STRONG & WILLIAMSON,

418 and 420 Clay St., - - - San Francisco.

FOR SALE,

A well improved Farm of 160 acres, with or without the crop, one-quartar of a mile from Linden, 12 miles from Stockton. Apply to

JAMES DRACE, Linden, Cal.

CENTENNIAL WINDMILL.

CHEAPEST. MOST DURABLE.

I am now selling this Windmill at prices less than a corresponding grade of mill has ever been offered in this market, therefore I claim it is the CHEAPEST.

The Wheel is a solid rosette, constructed of the best material. All the bearings run in wood, and can never cut or grind if left without oil for a few days.

The Crane, or Turntable, is composed of wrought and cast iron, combined so as to secure all the strength of the material used. The Hub and Crank Flange are not fastened by keys or pins, but cast on to the shaft, and cannot come off or become loose. For these reasons I claim it is the MOST DURABLE.

The Rosette Wheel has more power than any other of the same diameter. The Cross-vane is easily operated, and perfectly controls the mill. These mills can be set up by any person, as there is nothing complicated in their construction.

PRICES:

10-foot Mill, Rosette Wheel.....$75.00
12-foot " " " 90.00
14-foot " " " 125.00

Tanks Built to Order. Pumps of the best make on hand and for sale by

E. O. HUNT,
37 Fremont Street, San Francisco.

☞ Save the Commission to Agents by Purchasing Direct from the Manufacturer.

P. of H.

GRANGERS, ATTENTION!!!

Grangers' and People's

IMMIGRANT BUREAU,

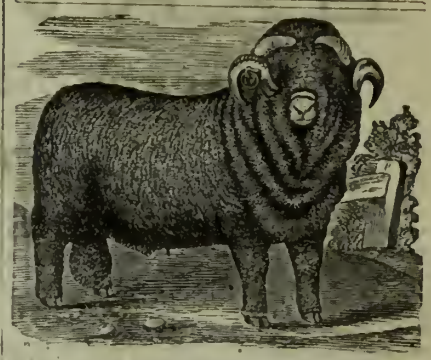
GRANGERS' BUILDING,

40 CALIFORNIA ST., - - - SAN FRANCISCO.

Farmers, send in your orders for help. We can send you all the good men you want at short notice, selected strictly according to your orders. Immigrants are arriving every day. All classes of help supplied, male and female. Address,

J. EARL,
Gen'l Immigration Agent of State Grange,
GRANGE HEADQUARTERS,
No. 10 California Street, San Francisco.

Live Stock Notices.



Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 500 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular.

LANDRUM & RODGERS,
Watsonville, Santa Cruz Co., Cal.

THOROUGHBRED SHEEP FOR SALE.

The undersigned offers for sale his entire herd, consisting of 150 head of Thoroughbred Spanish Merinos, Bucks and Ewes. The Sheep are good, and in good condition, and will be sold reasonable. For further particulars, enquire of

A. C. PAULSELL,
Stockton, Cal.

FOR SALE,

AYRSHIRE BULL—4 years old.

ENQUIRE OF

A. B. ROWLEY, Mayfield, Santa Clara Co.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, one fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

THOROUGHBRED SPANISH MERINOS.

Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS,
Santa Clara, Cal.

Allen's Planet Jr. SILVER MEDAL

Hand Seed Drills and Wheel Hoes, *perfected for '76.* Four sizes. They "sow like a charm;" *no packing* of seed in the hopper, *no crushing* it, *no pausing or waste* at the ends, *no irregularity* in depth, *no springs or gearing* to wear out, *no "skips," no noise, no equal!* The DOUBLE WHEEL HOE works *easier, better, and from six to twelve times faster* than the hand hoe; often saving the gardener $100 *in a season;* finishes *two rows at once,* when 6, 8, or 10 inches apart. Four pairs of hoes; *blades tempered steel.* We make an admirable COMBINED MACHINE possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our NEW HORSE HOE, perfected after ten years of experiment, saves most of the hoeing and *makes the remainder easy;* leaves the ground *level or ridged* as desired, *opens furrows, hills,* and cultivates shallow or deep, and is a thorough weed killer; should be owned *by every farmer.* Full Descriptive Circulars and Testimonials free. *Mention this paper.* S. L. ALLEN & CO., Sole Manf'rs, No. 119 S. 4th St., Philada. Pa. *We must have a Live Agent in Every Town.*

Gloves Made to Order

At prices most economical to customers, at the SACRAMENTO GLOVE FACTORY of I. W. Lusk, Tenth St., between J and K Sts., Sacramento. None but the best quality of California tanned skins used. Ladies' and Gents' colored, plain and Indian dressed riding and common gloves and mittens on hand, or made to order on short notice. ☞ Send your size or number and you can order by mail. Satisfaction guaranteed. Ladies, farmers, miners, engineers, and all requiring serviceable gloves are invited to call at the factory.

ANY PERSON receiving this paper after giving an order to stop it, may know that such order has failed to reach us, or that the paper is continued inadvertently, and they are earnestly requested to send written notice direct to us. We aim to stop the paper promptly when it is ordered discontinued. tf

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Juno 7th, 1876.

The coming trade casts its shadow before it. There is arising much interest among city dealers as to what the next few weeks will disclose. As yet, however, most of the activity is in talk, for we do not hear of any notable ventures being made. There is a very firm holding in Wheat, and indications seem to promise a profitable price. The war cloud thickening at the East, and all the attendant possibilities of its effect upon the demand for food supplies tend to strengthen confidence. There is apparently a difference of a point in the views of holders and bidders for new Wheat. We hear of holding at $1.57½ and offers of $1.55 per ctl.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday......	9s 10d@10s —	10s — @10s 6d
Friday.........	9s 11d@10s 2d	10s 2d@10s 6d
Saturday.......	9s 11d@10s 2d	10s 2d@10s 6d
Monday........	9s 11d@10s 2d	10s 2d@10s 6d
Tuesday.......	9s 10d@10s 2d	10s 2d@10s 6d
Wednesday ...	10s — @10s 2d	10s 2d@10s 6d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 6d@12s 9d	12s 8d@13s —
1875................	8s 10d@ 9s 1d	9s — @ 9s 4d
1876................	10s — @10s 2d	10s 2d @10s 6d

The Foreign Review.

It is announced that the situation in the European Grain markets is one of expectation. The telegraphed review of the *Mark Lane Express*, dated June 5th, is as follows: "Harvest prospects are fairly hopeful, despite some drawbacks. The weather recently has been on the whole advantageous to the Wheat plant. The state of political affairs in the East is beginning to exercise a marked influence in both monetary and commercial circles. It cannot be denied that the possibilities of war may become at any moment stern realities; consequently the daily course of foreign politics is being anxiously watched, and should the worst ensue we cannot shut our eyes to the fact that with the rapid diminution of stocks abroad and of the visible supply in America, a great alteration in the present range of prices in our market will in all probability occur. However, political influences have not affected our market to any extent, and our present position is one of careful watching. The supplies of Wheat from abroad during the week have been fair. No feeling of depression has shown itself. Millers still operate sparingly, but transactions in this quarter are expected to show more animation, as stocks of English Wheat in farmers' hands are believed to be unusually small. The fine weather on the Continent has caused a somewhat diminished inquiry here on the part of Continental buyers."

Freights and Charters.

There is still considerable doing in charters for future loading of Wheat. The prices are seen by the following reported engagements: Ship *Sovereign of the Seas*, 1,502 tons, Wheat to Liverpool, £3 5s; Cork, U. K., £3 7s 6d; Continent, £3 12s 6d. Br bark *Earl Dalhousie*, 1,047 tons, Wheat to Liverpool, London or Havre, July loading, private; Italian bark *Rocco Schiaffino*, 1,030 tons, Wheat to Cork, U. K., July loading, £3 7s 6d; French bark *Havre*, 681 tons, Wheat to Cork, or Continent, July loading, owners' account. There are now in port 24,568 tons engaged for new crop Wheat loading, 12,187 tons for immediate loading. The list of disengaged tonnage foots up 13,131 tons.

According to Mr. Friedlander's tonnage list for June, there is now on the way and chartered for this port an aggregate of 253,486 tons from all ports. From New York there is an aggregate of 33,374 tons on the way, and 18,825 on the berth. From Philadelphia, 4,188 tons; Baltimore, 9,132; and from Boston, 4,789, or 70,-305 tons in all from domestic Atlantic ports. Following is the amount from principal foreign ports: From Liverpool, 41,522 tons on the way, and 23,425 on the berth; From Newcastle (England), 14,052 on the way and loading; from Glasgow, 8,227; from Newcastle (Australia), 18,951; from Sydney, 14,168; from Hongkong, 11,596; and from Manila, 7,817, on the way and loading. Liverpool sends us the largest number of tons, though over half the vessels from that port are American. It is reported that in addition to the amount of tonnage given in the above list, there are about 50 vessels, aggregating 50,000 tons, engaged for this port, whose names have not yet been made public.

The *Commercial News* of to-day, June 7th, publishes a detailed statement of vessels under way for this port, and places the aggregate tonnage at 272,593 tons.

A feature of last week's engagements was the taking of the ship *Canada* to New York for 1,000 tons of new crop Barley, the charter being taken by the grower of the grain.

The Wisconsin Wheat Trade.

We quote the following concerning the Western Wheat market and growing crop from the circular of a Milwaukee dealer:

"The price of Wheat has been well sustained this week, the stronger tone to the export trade at the seaboard markets, and the more warlike news from Turkey producing an active demand for shipment and to cover short sales. A further decline in inland freights has also assisted the movement. Shipments have been made at lower freights than ever before known, 8¾c per bushel through to New York by lake and canal, including Buffalo charges. Receipts have increased, and doubtless would have been much larger but for the delays farmers have experienced in cutting their corn. The corn planting is now well over, and the calls for money and cars to move Wheat from the country are double what they have been, and we hear that the receipts will soon be equal to the full capacity of the railroads. For June they are variously estimated at from three to four million bushels. The receivers generally say that there is as much Wheat in the country tributary to Milwaukee as ever before. The weather has been warm, and the rains have ceased, none having fallen since last Saturday. The fields are looking splendidly. Thus far the growing Wheat has had everything in its favor. We can lay down No. 2 Wheat alongside ship at New York at $1.21 currency or $1.08 in gold. Freight on Wheat to Buffalo 2⅜c. Through freights to New York by lake and canal, 9c, and propeller and rail 10⅜c. All rail to New York 24c ⅌ 100 lbs. Through freight to Liverpool 42⅜c gold ⅌ 100 lbs."

The rates of through freight from Milwaukee to Liverpool given above are interesting as showing the cost of placing the Wisconsin Wheat on the market as compared with the cost of charters from this port.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week May 17.	Week May 24.	Week May 31	Week June 7.
Flour, quarter sacks	34,912	29,349	28,851	83,107
Wheat, centals......	57,285	25,634	103,858	29,158
Barley, centals......	11,825	25,897	24,216	27,156
Beans, sacks........	1,521	1,201	1,106	296
Corn, centals........	3,803	3 578	4,829	3 713
Oats, centals........	1,753	3,342	679	3,633
Potatoes, sacks......	5,262	11,121	8,449	11,713
Onions, sacks.......	128	779	1,062	766
Wool, bales.........	8,072	7,260	5,131	4,022
Hops, bales..........	161	67	105	201
Hay, bales..........	1,072	1,321	845	1,527

Bags—Wheat Bags are still held at 13¾@14c for time payments. We are informed that purchases can be made for cash at 13⅜c. There still prevails a feeling that more favorable terms can be made for August delivery. A dealer reports to us a sale of 100,000 Wheat Bags to be delivered August 20th at 12⅝c. Our information on this subject comes of course from dealers, and we only give it as we hear it. We have no evidence at present upon which either to affirm or deny. The trade is moderately active. Dealers look for their busy time next month.

Barley—There have been considerable transactions in Barley. The receipts have been larger than for several weeks. Current rates can be best learned from the following reported sales: 3,200 sks choice Coast Feed, $1.05; 300 do fair do, $1.02½, half silver; 500 do Coast Brewing, $1.10, half silver; 600 do Bay do, $1.20; 200 ctls new Feed, $1; 1,000 old do, $1; 500 sks choice old Bay Feed, $1.12½ per ctl; 600 do new Coast Feed, $1, half silver; 357 do Coast Feed, $1.02½, silver; 500 do good new, 95c; 200 sks poor Coast Feed, 90c; 300 do fair do, $1 02½, half silver; 1,100 ctls choice Bay Brewing, $1.20, half silver.

Beans—Beans are unchanged. Receipts are very light.

Corn—There have been large transactions and considerable activity in Corn, although rates are not materially changed. We note the following sales: 100 sks good Bay Feed, $1.17½; 200 good large Yellow, $1.20, half silver; 20 do small White, $1.30; 200 sks large Yellow, $1.20, half silver; 190 do Bay Dent, $1.17½; 27 do small White, $1.30; 450 sks Yellow, $1.17½, half silver; 100 sks White, $1.25, half silver; 50 sks small Round, $1.25, gold; 50 sks large Yellow and White mixed, $1.17½, half silver; 100 do large Yellow, $1.17½; 100 do large White choice, $1.25; 51 sks small Yellow, $1 25; 300 do large do, $1.17½, half silver; 200 do large White, $1 25 per ctl quarter gold; 500 sks choice Yellow $1.17½; 150 sks large Yellow, $1.17½.

Dairy Produce—Butter and Cheese are very plentiful and sales are not large. Large quantities are being packed by city commission houses. Prices are unchanged.

Eggs—Eggs are weaker and sell at a wider range than usual.

Feed—New Hay is abundant, the receipts of the week being the greatest for the last four weeks. There is still demand for choice old Wheat, and this would bring to-day as high as $17. New Hay sells at wide range. We note sales: 22 tons new Clover, $10.50; 22 tons new Wheat and Oat at $10.75; 40 do new Wheat, $11.50; 22 do choice old Wheat, $17; 60 tons new Wheat and Oat at $10.75; 40 do new Wheat, $11.50; 86 tons good new Oat, $10.50; 30 do old do, $13.50; 20 do choice old Wheat, $17; 30 tons fair old Mixed at $13.50; 90 tons fair new at $10@10.50; 25 tons choice new at $12.50; 44 tons new Wild Oat, $11; 17 do fair new Oat, $11 25; 31 do Oat and Wheat, $11.50; 27 do good new Wheat, $13 per ton. Cornmeal is quoted at $27@28 per ton. We note a sale of 100 sks at $1.26½, one-fourth gold.

Fruit—During the past week the first Cherry Plums and Madeline Pears have been received. They sell for fancy prices. Currants are fine and very cheap. The market is well supplied with tropical and semi-tropical Fruits by frequent steamer and overland arrivals. A shipment of Oranges and Lemons was this week received from Sicily direct, by one of our enterprising fruit merchants. The consignment came through in 40 days, including a detention of five days at New York. The fruit was in prime condition. Two more cargoes of Tahiti Oranges are at hand; in all six cargoes of the new crop have now been received since May 10th, bringing 2,092,000 Oranges. Four more cargoes are expected. Last year, during the months of May and June, the sales of Oranges here did not average over 12,000 per day. This year over 35,000 per day must be sold to get rid of the stock by July 4th. There have been some changes in fruit prices during the week, as can be seen in our tables below.

Fish—Salmon continues plentiful and fine; large fish can be had at 40@50c each. Other kinds are scarce and dearer.

Hops—The receipts of Hops for the week have been unusually large, but we learn no change in prices. We note a sale of 84 bales good Sacramento at 10c. The New York trade, for the week ending May 26th, is reviewed by Emmet Wells as follows:

"Market dull and prices nominal. The shipping demand has entirely ceased, and only a small business is doing with brewers. The attention of the trade is now turned toward the new crop. The foreign crop especially will be watched with unusual interest, the price here next season depending so much upon it. Without an export trade with England we must look for low prices, particularly if our own crop is a large one. A good many acres will be planted this spring, in a quiet way, on account of the low price of roots. We would advise growers who are starting in the business not to get discouraged by the low price now ruling; the chances are that prices will rule higher again after next year; besides, something may happen to the present growing crop to put the price up. The only way to make Hop culture a success is to stick to it, and strive from year to year to improve on quality."

Oats—Oats are only in moderate demand and prices unchanged. We note sales: 100 sks Milling $2.40@2.50; 100 sks good Feed, $2.20; 100 sks Tomales, $2.20 ⅌ ctl.

Onions—Old Onions are nearly out of the market. New are received in abundance and sell at low rates. New Red may be quoted at 75@$1.00 ⅌ ctl, and Silver Skins at $1.00@1.15 ⅌ ctl.

Potatoes—Old Potatoes sell at almost any price. We note sales of 100 sks fair old Tomales at 50@70c. New Potatoes are a little firmer to-day. We note sales: 30 sks new Early Rose at $2; 375 sks new Half Moon Bay and Mission Bay at $2.25@2.50; 100 sks Salt Lake at $1.50 ⅌ ctl. Salt Lake Potatoes are nearly out of the market, although some are still offered under the name.

Provisions—Fresh Beef is lower and good grades abundant. No very poor Beef is offered. Fresh Mutton is in excess and prices are very low. The quality is good. Hogs are much lower. The supply is moderate, but the demand is confined to fresh consumption, the price being still too high for the packers to operate largely. In salt provisions all articles of the hog product are lower on account of a serious break in the Eastern markets. Hams are affected less than anything else. The demand is moderate and increasing as usual at this season.

Poultry—Poultry is generally cheaper.

Vegetables—Vegetables are becoming more plenty and cheaper. Tomatoes have declined to 12½c ⅌ lb during the week. Marrowfat Squash is nearly out of the market and is very high.

Wheat—There is but little Wheat offered and the market is firm. Quotations are unchanged. There have been some transactions as we note: 1,200 sks choice Milling at $1 75; 800 do Shipping, $1 65; 2,000 ctls choice old Milling at $1.75; 3,000 sks good Shipping at a full figure; 1,400 do do, supposed to be $1.72½; 2,000 do good Stockton Milling, $1.75; 450 ctls choice Milling $1.75; 600 ctls good Shipping at $1.65 ⅌ ctl.

Wool—The local market is unchanged, and sales have been made at prices noted before. Northern has arrived more freely and sells at 16@20c according to quality. We note sales of 565,000 lbs various at 12@18c. The Eastern markets are reported by telegraph as follows:

NEW YORK, June 3d.—The Wool market has exhibited rather more activity this week, owing chiefly to the action of holders, who have in most cases receded from their recent views. This decline is noticeable on almost every description of both foreign and domestic, and at the close to-day there is still a visible weakness. A disposition is being shown to work off as soon as possible the supply of the old stock, and there are daily receipts of new clips. The demand for foreign clothing is so exceedingly limited that holders of Australian have commenced to export their supplies. The colonial sales at London open on the 20th of this month, and it is expected that 250 000 bales will be offered. Sales for the week are: 3,000 lbs Australian, 43½c; 227,000 lbs new spring California, 16@28c; 10,000 lbs fall do, 13c; 2,500 lbs scoured do, 50c; 20,000 lbs washed Colorado, 18c; 68 000 lbs new Eastern Texas, 15@23c; 20.000 lbs Western, 17c; 15,000 lbs Pennsylvania fleece, 34c; 30 bags lambs' pulled, 35@36c; 116 do super do, 32@35c; and 150 bales autumn Donskoi, 12,000 lbs fall California, 5 000 lbs scoured do, 5,000 lbs do pulled, 10,000 lbs Oregon, 5,000 lbs do pulled, 32,000 lbs XX Ohio fleece, 40,000 lbs do delaine, 135 bags super pulled, and 18 do No. 1 do on private terms.

BOSTON, June 3d.—There has been a more active demand for Wool during the past week, but sales are confined almost exclusively to new spring California. Prices are unchanged. The stock of fleece Wool is small, and not so desirable, but the supply is fully equal to the demand, and Ohio cannot be quoted at over 36@38c; choice XX Ohio and Pennsylvania at 40@42½c; Michigan and Wisconsin cannot be quoted at over 33@35c; good lines of medium do, at 35@37c. California new spring has been arriving quite freely, and holders have been free sellers. Quotations are from 16@28c for inferior to choice. Principal transactions are still in the range of 20@25c. One choice lot of 60,-000 pounds of Northern spring sold at 28c; several other choice lots at 27c; but 25c is about the outside price for good average lots. Combing and delaine are neglected. Good lines of domestic combing cannot be quoted at over 45@48c; delaine cannot be quoted at over 35@40c; unwashed and unmerchantable, 20½@28c; scoured, 47@70c. Pulled Wools are dull, and have been in limited demand, with a large stock on the market. Choice Maine supers have been sold at 42c; do Eastern supers at 43@45c; but the principal sales of supers and X have been in the range of 33@37c.

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., June 7, 1876.

FRUIT MARKET.	
Oranges Mex. ⅌ M...............	— —@— —
Tahiti do	20 00@25 00
Cal. do	— —@— —
Limes, Mexican, ⅌ M..........	10 00@— —
Malaga Lemons, ⅌ bx..........	— —@— —
Cal. ⅌ 100......	1 50@ 2 00
do Sicily ⅌ b'x.	0 00@10 00
Bananas, ⅌ bnch	2 50@ 5 00
Cocoanuts, ⅌100.	6 00 @ 7 00
Pineapples, ⅌dz.	6 00 @ —
Apples, ⅌ box...	75 @1 00
do Choice... ..	— @ —
Apricots, lb.....	10 @ 25
Blackberries	— @ 50
Cherries, ⅌ lb. .	10 @ 15
Tartarian.... .	18 @ 27½
Cherry Plums ..	15 @ 20
Figs	— @ —
Gooseberries..	5 @ —
Huckleberries...	— @ —
Strawbar's ⅌ case	6 00 @10 00
Pomgranates....	— @ —
Raspberries.....	18 @ 20
Currants, ⅌ case	3 50@5 00
Cranberries ⅌ bbl.	13 00@14 00
Peaches, ⅌ lb ..	— @ 30
Pears, ⅌ bx......	— @ —
do Choice....	— @ —
Crab apples, ⅌ bx	— @ —
DRIED FRUIT.	
Apples, ⅌ lb.	9 @12½
Pears, ⅌ lb	8 @13
Peaches, ⅌ lb......	12 @12½
Apricots, ⅌ lb......	14 @15
Plums, ⅌ lb......	5 @ 6
Pitted, do ⅌ lb .	17 @22
Raisins, imported.	3 25 @3 75
Cal. Raisins.....	5 @ 10
Black Figs, ⅌ lb....	5 @10
White, do	13½@15
Prunes............	12½@17
Citron............	28 @ 30
Zante Currants	9 @ 10
VEGETABLES.	
Asparagus ⅌ box...	1 25@2 25
Beets ⅌ ctl....	— @ 75
Cabbage, ⅌ 100 lbs	1 00@1 25
Carrots, ⅌ 100 lbs	1 00@1 12½
Cauliflower, doz..	50@ 75
Celery, doz	50@ 1 50
Garlic, ⅌ lb........	3½@ 5
Green Peas ⅌ lb....	3 @ 3½
Green Corn ⅌ doz...—	@50
Summer Squash ⅌ lb...	4 @ 5
Marrofat Sqsh, tn	30 00@—
Artichokes, ⅌ doz .	— @—
String Beans, ⅌ lb	5 @ 6
Lima Beans	— @—
Parsnips	— @—
Shell Beans..........	— @—
Peppers, green, bx	— @—
Okra..............	— @—
Cucumbers, ⅌ doz	37@ 50
Tomatoes, box....	— @ —
Egg Plant, bx........	— @ —
Rhubarb............	1@ 3½
Lettuce	— @ —
Turnips, pr ctl......	75@1 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & Co.]

SAN FRANCISCO, June 7, P. M.

LEGAL TENDERS in S. F., 11 A. M., 89¼ to 89½. Silver to 5 per cent. discount.

GOLD in N. Y. 112¼.

GOLD BARS, 900 to 910. SILVER BARS, 12 and 20 per cent discount.

EXCHANGE on N.Y., 50-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼. Paris, five francs per dollar; Mexican dollars, 9 per cent. discount.

LONDON — Consols, 93 to 93¼; Bonds, 102¼.

QUICKSILVER in S. F., by the flask, per lb, 50@52c.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., June 7, 1876.

BEANS.	
Bayo, ⅌ ctl......	4 50@5 10
Butter...........	1 90@2 25
Pea...............	1 92½@2 00
Pink..............	2 50@3 01
Sm'l white.....	1 60@1 91
Lima	1 90 @2 00
BROOM CORN.	
Common, ⅌ lb..	2 @ 3
Choice, do .	4 @ 5
COTTON.	
Cotton, ⅌ lb.....	15 @ 18
DAIRY PRODUCE, ETC.	
BUTTER.	
Cal. Fresh Roll per lb	22½@ 28
Point Reyes.....	— @ 30
Firkin...........	22 @ 26
W'st'n Reserve.	16 @ 20
New York.......	— @ —
CHEESE.	
Cheese, Cal., lb..	10 @ 15
do Old.........	— @ —
Eastern	15 @ 17
EGGS.	
Cal. fresh ⅌ doz	26 @27½
Ducks'...........	— @ 24
Oregon........ ..	— @22½
Eastern.........	21 @ 23
FEED.	
Bran, per ton....— —	@18 00
Corn Meal.......	27 50 @28 00
Hay....	8 00 @15 00
Middlings	24 00 @— —
Oil cake meal...— —	@37 50
Straw, ⅌ bale.	50 @ 60
FLOUR.	
Extra ⅌ bbl....	5 50 @5 75
Superfine......	4 20 @4 75
Graham, ⅌ bbl	5 50 @ —
FRESH MEAT.	
Beef 1st quality lb.	5½@ 6
Second do	3½@ 4
Third do.......	2 @ 3
Spring Lamb....	4½@ 5
Mutton..........	2½@ 3
Pork, undressed	6½@ 7
do, dressed....	9½@ 10
Veal	5 @ 5½
Milk Calves	6 @ 6½
GRAIN, ETC.	
Barley, feed ctl	1 00 @ 1 07½
do brewing.	1 17½@ —
Chevalier......	1 25 @ 1 35
Corn, White...	1 15 @ 1 20
do Yellow....	1 15 @ 1 25
Oats......	2 00 @ 2 12½
Milling........— —	@ 2 75
Rye .... — —	@ 2 50
Wheat shipping	1 61 @1 70
do milling	1 70 @1 75
HIDES.	
Hides, dry	10 @ 12
do wet salted	6 @ 6½
HONEY, ETC.	
Beeswax, per lb..	25 @ 27½
Honey in comb..	12½@ 15
do Strained .	8 @ 10
HOPS.	
New crop	10 @ 13
NUTS—Jobbing.	
Alm'ds h'rd sh'l lb	8 @ 10
do, soft sh'l...	18 @ 20
Brazil do........	14 @ 16
Cal. Walnuts....	12 @ 14
Chile Walnuts..	11 @ 12½
Peanuts par lb..	9 @ 10
Filberts...........	15 @ 16
Pecannuts	17 @ 18
ONIONS.	
Union City ctl	— @ —
Stockton.......	— @ —
New Red.......	75 @ 1 00
Silver Skins ...	1 00@ 1 15
POTATOES.	
Petaluma, ⅌ ctl.	65 @ 1 00
Salt Lake.......	— @— —
Humboldt......	75 @ 1 10
Early Rose.....	2 00 @ 2 50
Sweet	— @— —
New	1 25@ 1 75
POULTRY & GAME.	
Hens per dz...	7 50@8 00
Roosters........	9 00@10 00
Broilers........	3 00 @ 6 00
Ducks, tame dz	6 00 @9 00
do Mallard ...	— @5 00
do Canvass....	— @5 00
Geese, per pair	2 10 @2 50
Wild Gray dz	3 00 @4 00
White ..	1 50 @2 00
Turkeys, Live, lb	15 @ 20
do Dressed....	20 @ 22
Quail, per doz ...	— @
Snipe, Eng., doz.	2 00 @2 50
Doves, per dozen	0 @ 57
Rabbits......	1 00 @1 00
Hare, per doz	1 50 @2 10
PROVISIONS.	
Cal. Bacon, L't, lb	15½@ 16
do Medium .	14½@ 15
do Heavy.....	— @ 15½
Lard.............	14 @ 16½
Cal. Smoked Beef	9 @ 10
Eastern do....	— @ 10
East'rn Should's	— @ 10
Hams, Cal	14 @ 14½
do Armour	14½@ 15
do Worster's.	16½@ 17
do Dupee's..	16 @ 16½
do Davis Bros'	16½@ 17
SEEDS.	
Alfalfa, Chile lb.	8 @ 10
do California.	12 @ 13
Canary	18 @ 20
Clover Red......	— @ 22
do White	50 @ 55
Cotton.	6 @ 10
Flaxseed........	— @ 3½
Hemp......... ..	12½@ —
ItalianRyeGrass	25 @ 30
Perennial do....	20 @ 30
Millet..........	10 @ 12
Mustard, white.	3 @ 3½
do, Brown. ...	3 @ 3½
Rape.............	7 @ 9
Ky. Blue Grass..	30 @ —
do 2d quality..	29 @ —
Sweet V Grass..	— @ 75
Orchard do. .	30 @ 35
Red Top do...	— @ 25
Hungarian do	8 @ 12
Lawn do... .	50 @ —
Mesquit do .	20 @ 25
Timothy ...	11 @ 13
TALLOW.	
Crude, ⅌ lb	6½@ 7
Refined .	8½@ 9
WOOL, ETC.	
SPRING—	
Seedy, ⅌ lb	11 @ 12½
Choice long free	17 @ 18
do short........	13 @ 16½
Burry	10 @ 14
Oregon	— @ —

LUMBER.

CARGO PRICES OF REDWOOD.	
Rough, ⅌ M.......	$18 00
Rough refuse, ⅌ M......	14 00
Rough clear, ⅌ M.......	30 00
Rough clear refuse, M..	20 00
Rustic, ⅌ M........ ...	32 50
Rustic, refuse, ⅌ M.....	21 00
Surfaced, ⅌ M	30 00
Surfaced refuse, ⅌ M...	20 00
Flooring, ⅌ M...........	28 00
Flooring, refuse, ⅌ M..	20 00
Beaded flooring, ⅌ M...	30 00
Beaded floor, refuse, M.	25 00
Half-inch Siding, M.....	22 50
Half-inch siding, ref, M.	16 00
Half-inch, Surfaced, M.	25 00
Half-inch Surf, ref., M.	18 00
Half inch Battens, M...	22 50
Pickets, rough, ⅌ M....	13 00
Pickets, rough, p'ntd...	16 00
Pickets, fancy, p'ntd....	25 00
Shingles, ⅌ M	2 00

PUGET SOUND PINE—Retail Price.	
Rough, ⅌ M	22 50
Fencing, ⅌ M...........	22 50
Flooring and Step, ⅌ M	32 50
Flooring, narrow, ⅌ M..	35 00
Flooring, 2d quality, M.	25 00
Laths, ⅌ M	3 50
Furring, ⅌ lineal ft ...	— —
REDWOOD—Retail.	
Rough, ⅌ M	22 50
Rough refuse, ⅌ M......	18 00
Rough Pickets, ⅌ M	18 00
Rough Pickets, p'd, M..	20 00
Fancy Pickets, ⅌ M.....	30 00
Siding, ⅌ M..............	25 00
Surfaced and Long Beaded	37 50
Flooring	35 00
Do do refuse, ⅌ M	25 00
Half-inch surfaced, M...	32 50
Rustic, No. 1, ⅌ M	40 00
Battens, ⅌ lineal foot .	½
Shingles ⅌ M	3

RETAIL GROCERIES, ETC.

WEDNESDAY, M., June 7, 1876.

Butter, Cal. ch'ice	30 @ 37
Cheese, lb.	18 @ 20
Eastern...... .	25 @ 30
Lard, Cal., lb....	— @ 18
Eastern........	20 @ 25
Flour, ex. fam. bl	6 25 @6 50
Corn Meal, lb.....	2½@ 3
Sugar, wh. crsh'd	12½@ 13½
do lt. brown, lb	8 @ 9½
Coffee, green, lb..	23 @ 35
Tea, fine blk, 50, 65, 75	@1 00
Tea, fnst Jap, 55, 75, 90	@1 00
Candles, Adman't'e	15 @ 25
Soap, Cal., lb ...	7 @ 10
Rice, lb	9 @ 12½
Yeast Powder dz.	1 50 @2 00
Bowen Brn. large can per doz ..	5 00 @— —
Small, do	2 50 @ —
Bowen's Cream Tartar lb	— @ 75
Can d Oysters, dz	2 00 @3 50
Syrup, S F Gol'n.	75 @1 00
Dried Apples....	10 @ 12½
Dr'd Ger. Prunes	12½@ 14
Dr'd Figs, Cal...	9 @ 10
Dr'd Peaches....	11 @ 15
Oils, Kerosene ..	30 @ 40
Wines, Old Port	3 50 @5 00
do Fr. Claret..	1 00 @1 50
do Cal. dz. bot.	3 00 @4 50
Whisky, O K, gal.	3 50 @5 00
Fr. Brandy	4 00 @8 00

FARMERS,

BEWARE OF FIRE!

The undersigned, having been appointed Manager for that particular Branch of Insurance, is prepared to

INSURE GROWING GRAIN

And While Standing in Stacks and Sacks.

Companies Represented.

SVEA, of Gothenburg, Sweden.

FRENCH INS. CORPORATION, of Paris, France.

LOCAL OFFICES

AT PRINCIPAL POINTS IN THE GRAIN-GROWING DISTRICTS IN ALAMEDA AND BUTTE COUNTIES AND SAN JOAQUIN VALLEY. THE BUSINESS WILL SOON BE EXTENDED THROUGHOUT THE GRAIN DISTRICTS OF THE STATE.

MAIN OFFICE, Stockton, Cal.

CHAS. W. DOHRMANN, Manager.

Dewey & Co. {224 Sansome St} Patent Agt's.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogna and price list furnished on application.

Address, W. H. PEPPER,

19v8-1f Petaluma, Sonoma Co., Cal

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Arsucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS, Santa Barbara, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS CO., 609 Sacramento St., S. F. Send for Circular.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send stamp for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 47 Cal. Market S.F

Agricultural Articles.

THE Improved Eagle Hay Press

CHEAP, STRONG, ECONOMICAL, POWERFUL AND RAPID.

THE KIMBALL MANUFACTURING CO.,

Owners of the Patent, and Sole Manufacturers on the Pacific Coast, make

Cars, Carriages and Agricultural Implements,

Cor. Fourth and Bryant streets, S. F.

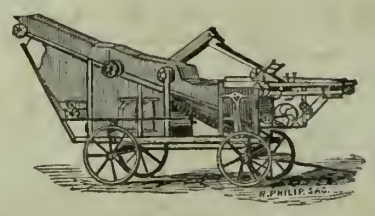
Pressing hay in bales in a compact and easily managed shape has become one of the features in the industry of California farming.

The large sales the past season, and the increasing demand of the present, gives proof of the advancement of the Improved Eagle Hay Press over all competitors on this Coast.

Three men, with a team, can bale from ten to fifteen tons per day, each bale weighing from 250 to 350 lbs., according to the quality of the hay. It uses less rope than any other press of its size. Size of bale box, 49 inches long, 26 inches wide and 27 inches high.

These presses are made in San Francisco, by the KIMBALL CAR AND CARRIAGE MANUFACTURING CO. Also manufacturers of agricultural implements, California grading scraper, farming tools, carts, plows, wheelbarrows, portable railway track and cars, railway and street cars, omnibusses, Taylor's patent tubular iron and wood harrows, with driver's seat attached, Harris' patent tubular iron square or Scotch harrow, steam fire engines, Hayes' patent fire escape, Southwick's patent turbine windmill, quartz and farm wagons, trucks, road scrapers, all styles and grades of harness; carriages trimmed to order; manufacturers and agents of Tulloch's automatic ore feeder; machinery made and repaired; fine carriages and all styles of buggies.

JACKSON'S PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet Invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

NEW Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.

TABER'S IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL,

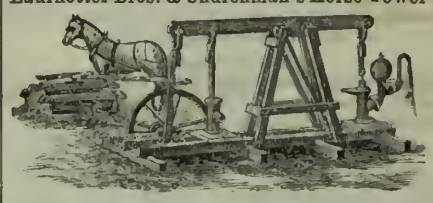
Will receive Prompt Attention.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

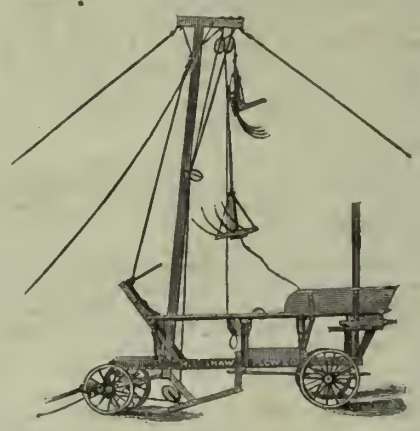
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON.

Stockton, Cal.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF GANG PLOW.

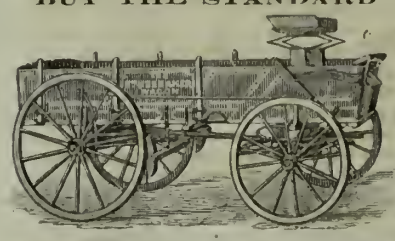
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,

Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from

Light Trotting Buggies to Six-Horse Team Wagons.

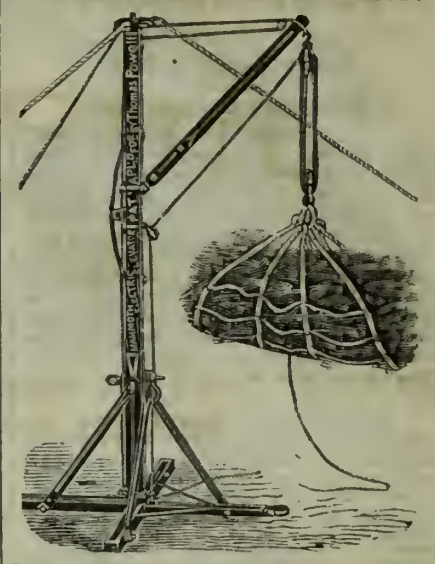
E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack, only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. C. SHAW PLOW CO., Stockton, Cal.

Marster's Self Regulating FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

E. J. MARSTERS,

Stockton, Cal.

Works, Corner California and Sonora Streets.

COHANSEY GLASS TOP FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.

Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Ca

TRADE MARK.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

CENTENNIAL.

5 Beautiful Views, size 3x4 inches each, of THE CENTENNIAL BUILDINGS at Philadelphia, postpaid for 25 cts; 5 sets for $1. Agents Wanted.

PHELPS BROS. & CO.,

125 Dearborn st., - - CHICAGO

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,

San Luis Obispo.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

One Pound "Swan & Co's. Patent" Strawberry Baskets, $10. One Pound Tin Top Strawberry Baskets, $10. One Pound Square Strawberry Baskets in Shook, $5. One Pound "Swan & Co's. Patent" Raspberry Baskets, $10. One Pound Tin Top Raspberry Baskets, $10.

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

Stockton, Cal.

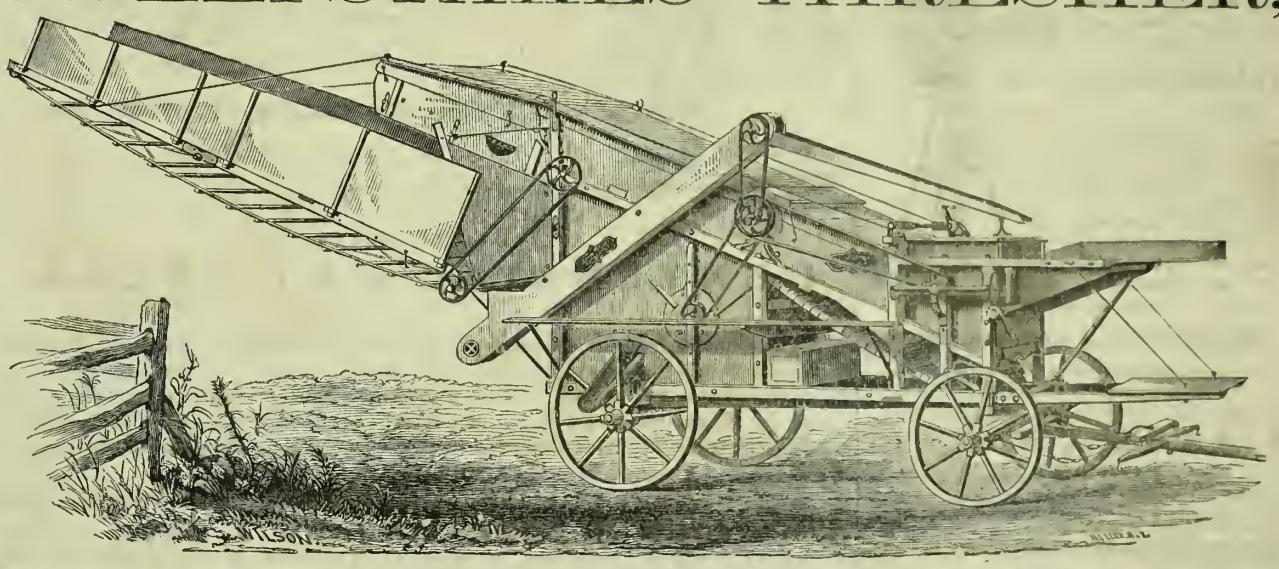
HOOPER'S SOUTH END WAREHOUSES,

FIRST-CLASS FIRE-PROOF BRICK BUILDING,
COR. JAPAN & TOWNSEND STREETS,
SAN FRANCISCO, CAL.

Goods taken into the Warehouse from the dock and the cars of the C. P. R. R. and S. P. R. R. free of expense, at current rates of storage. Advances and Insurance effected at Lowest Rates.

JOHN JENNINGS, Proprietor.

SWEEPSTAKES THRESHER,



With all the Latest Improvements for the Pacific Coast, Manufactured for

FRANK BROS. & CO.

We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

All who are in want of Threshers should not fail to call and see the improvements that have been put on the Sweepstakes for the Harvest of 1876. We also have the Cary Power, to which we would call special attention.

FRANK BROS. & CO.,

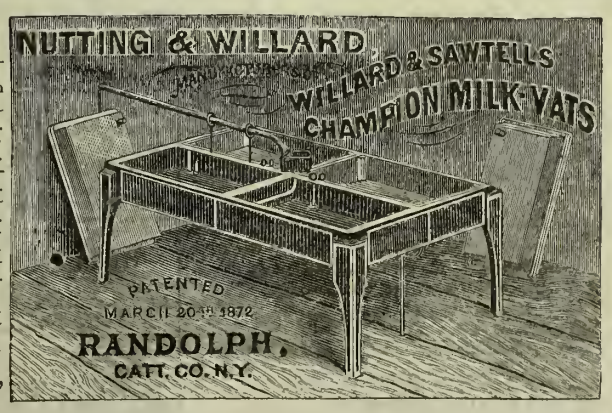
349 MARKET STREET, - - - - - - - - - SAN FRANCISCO.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth. Capacity, Etc.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wide	12 gal'ns.	6 in.
1	6 ft 10 in. l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 8 in. l ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns.	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	55 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	65 gal'ns.	9½ in.

*Four pans in set.



NUTTING & WILLARD,

SACRAMENTO, CAL.

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,

Dorado, El Dorado Co., Cal.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other good fence, and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough into buggy to fence 160 acres, and two men can put it up in two days. 11 Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18 The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21 The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞ Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

UNKNOWN.—We have lately received cash at this office without due explanation, as follows: From Carson, Nev., $4, by express.

The senders will please give full address, date of sending, etc.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

JOHN LUTTRELL MURPHY,

Attorney and Counsellor at Law,

NO. 535 CLAY STREET,

SAN FRANCISCO.

Practical

BOOKS

—AT—

BANCROFT'S.

A. L. Bancroft & Co. keep on hand a large stock of American and European Books, Suitable for

CIVIL ENGINEERS,
FARMERS,
MACHINISTS,

And Industrial Classes generally, and supply them, post free, at publishers' prices; for particulars of which see catalogues, which will be forwarded on application.

A. L. BANCROFT & CO.,
721 Market Street, S. F.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures.

Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,
Livermore, Alameda County, Cal.

A RARE CHANCE.

FOR SALE,

My POULTRY BUSINESS, with my Farm of 115 acres—22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year, Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. Price, $12,000, one-half cash. Or I WILL SELL A HALF INTEREST and continue the business in partnership—the purchaser to reside on the place. Address,

M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

H. H. CUMMINGS. 1858. H. H. HALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

---

INTERNATIONAL HOTEL

ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

SEARCHER OF RECORDS

—FOR—

SONOMA COUNTY,

CALIFORNIA,

F. G. NAGLE, - - - SANTA ROSA.

GOLD MEDAL

CALIFORNIA FRUIT DRIER

IS NOW OFFERED TO THE FRUIT GROWERS

—AS THE—

Cheapest and Best Method of Drying and Preserving Fruits and Vegetables.

WE ARE MANUFACTURING ALL SIZES OF THE DRIERS, TO SUIT THE WANTS OF THE FRUIT GROWERS.

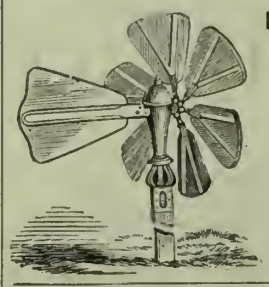
Send for Circulars and Price Lists.

The Gold Medal California Fruit Drier

IS THE ONLY ONE THAT WILL DRY LARGE QUANTITIES OF FRUIT AND PUT IT ON THE MARKET AT A NOMINAL COST.

Sacramento Plow Manufacturing Company, Sacramento City, Cal.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

JOHN H. GOVE'S

CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $300.**

Manufactured and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

A Liberal Discount to the trade. For Sale by all Agricultural Dealers.

EXTRAS! EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

J. W. CASSIDY'S

FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.

Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.

POND LILIES,

WHITE FLOWERING,

ROSES, FUCHSIAS, DAHLIAS, and Flowering Plants in choice assortment, FREE BY MAIL, at less than Eastern rates. Send for Price-list.

W. A. T. STRATTON,
Pacific Forest Tree Nursery, Petaluma, Cal.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur *at any time*, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4|176.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞ Trade Price List on application.

*** My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT.—In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

CENTENNIAL EXPOSITION.

Visitors to the East can obtain advanca accommodations (good until Nov. 10th), at all first-class hotels and boarding houses in Philadelphia. Full Board per week as low as $6 00, or $1 00 per day. Grangers, Freemasons, Temperence Societies and large bodies will be dealt with liberally. Parties taking our ticket can secure Hotel accommodations at New York, Saratoga and Long Branch without extra charge, by applying to

Centennial Boarding Agency Bureau,
of Philadelphia,
121 MONTGOMERY ST., - - SAN FRANCISCO.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early, Marblehead Mammoth, Stowell's Evergreen, Mexican Sweet, New — Sweet Corn.

Early Canada, Early Dutton — Yellow Flint Corn.

Long Red Mangel Wurzel, Yellow Globe, White Sugar — Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR.....PRESIDENT.
I. G. GARDNER.....VICE-PRESIDENT.
G. P. KELLOGG.....TREASURER
A. W. THOMPSON.....ATTORNEY
FERD. K. RULE.....SECRETARY

TRUSTEES:

J. D. BLANCHAR.....S. F.
G. P. KELLOGG.....Salinas
I. G. GARDNER.....S. F.
CHAS. LAIRD.....Salina
URIAH WOOD..San Benito
A. B. NALLY.....Santa Rosa
A. W. THOMPSON.....S. F.
A. D. LOGAN.....Colusa
I. C. STEELE.....San Mateo
G. W. COLBY.....Butte Co
A. WOLF.....Stockton
C. J. CRESSEY.....Oakland
J. C. MERRYFIELD..Dixon
E. W. STEELE, S. L. Obispo
C. S. ABBOTT.....Monterey
DR. T. FLINT.....Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	70,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit

---

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

E. B. MOTT, Jr.,

IMPORTER AND DEALER IN

STOVES, METALS AND TINWARE

And Sole Agent for the Rathbone Range.

53 and 55 J Street, Sacramento.

PACIFIC RURAL PRESS

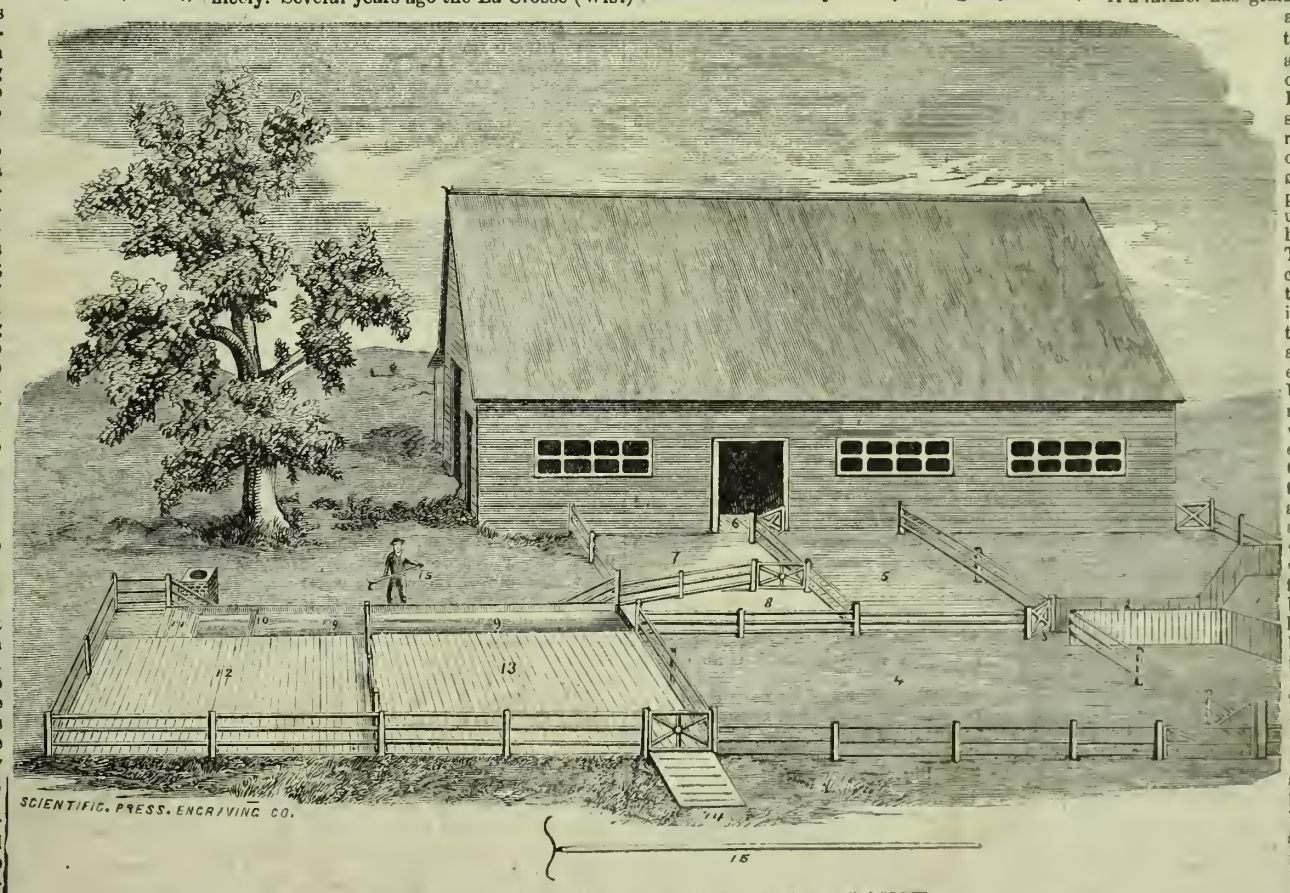
Volume XI.] SAN FRANCISCO, SATURDAY, JUNE 17, 1876. [Number 25.

Sheep Corrals and Dip.

We illnstrate on this page the sheep corrals and dipping apparatns bnilt this spring on the Cotate rancho, Sonoma county, deeming that it might prove nseful to some of our readers engaged in sheep raising, and who have not provided themselves with any means for fighting the only sconrge with which their flocks are annoyed, viz., the scab.

The large corral (1) tapers gradually towards the race (2), which is made sufficiently narrow to prevent the sheep from passing through two ahreast. The further end of the race is guarded by a swing gate (3), worked from behind the boarded race, so that each sheep, as it rnns through, may he guided into pens (4 or 5,) as may he desired. This is a great advantage during shearing time, when he lamhs are running with the ewes, as the latter are tnrned into the boarded catch pen (5), whilst the lamhs run into pen 4, thereby avoiding a vast amonnt of unnecessary and injurious jostling and crowding. California shearers are not, as a rule, gentle handlers; and, unless closely watched, are much given to throwing and dragging the sheep through the dirt; for this reason the catch pen (5) has heen hoarded, and is easily swept. From said pen the shearers take the sheep into the shearing floor (6), and having deprived them of their fleeces, turn them into pen 7, whence they are driven into the small and tapering catch pen (8). Here the assistant dipper seoures them without difficulty, and drops them gently, and one by one, into the dip (9, 9). The shepherd stands alongside of the dip, and, by means of the inside curve of the crook (15), completely immerses the sheep, who, on rising to the snrface, swims for the further end. A bar (10), placed across the dip and on the surface of the wash, prevents its escape, and here it is caught again and, by means of the outer crook placed under the neck, dragged or turned quietly back and again immersed. It is then allowed to swim a second time for the bar, hut just hefore reaching it the crook is applied to the hack of the neck, and, with a shove downward and forward, his woolship takes a dive, to rise again beyond the bar and find his forefeet resting on the incline (11), up which he climbs to the hoarded drip pen (12). As soon as the first drip pen is full, it is emptied into the second (13), to make room for later bathers. By the time that the first is again filled, the sheep in the second will have shed about as mnch of the wash as they possibly can, and may then be turned into the paddock (14), or a large corral, to await the rest of the flock. The drip pens are, of course, made with snfficient slant to take the drippings back into the dip. (There should be a fence hetween the dip and the drip pens, but we omitted it in our sketch, to show the dip to better advantage). If a sheep be exceedingly scahhy, he can rest his head on the cross-har (10) and be allowed to soak as long as necessary.

The dip in question is about 16 feet long and about 28 inches wide. Some persons would prohably consider a longer dip more advantageous, hut where economy in labor is desired the short dip is preferable, especially as the cross-bar (10) keeps the sheep completely under the shepherd's control, and does away with the necessity of his running hackward and forward more than one or two steps to immerse each sheep several times. The depth shonld always be sufficient to oblige the sheep to swim, and to prevent their tonching hottom, even when immersed. The crook proper is made of half-inch iron; the handle should he of good tough wood, as the strain when washing large sheep and especially rams is at times very great.



SHEEP CORRALS AND DIP ON COTATE RANCH.

A Beautiful Tree.

Some two years ago we received from John Rock, San Jose, a fine specimen of the *Paulownia imperialis*, which is now growing thriftily on our grounds in Oakland. One of the same species lately received, hy mail, from C. C. Cooley, Manchester, Ohio, is also growing nicely. Several years ago the La Crosse (Wis.) *Democrat* published the following concerning this tree:

C. C. Cooley, of Manchester, Ohio, has on his premises, growing luxurlantly, one of the most heautiful flowering trees in the world, the same heing the *Paulownia imperialis*, of Japan. Some nine years since his hrother sent him a small tree, about two feet in hight, and about the thickness of one's finger. It is now 45 feet high, and measnres 52 inches in circnmference, three feet above the ground. Some of the leaves are 47 inches in circumference. It commenced to blossom the third year after planting. The flowers are very beautiful, growing in large clnsters, sometimes to the number of 120 in one hnnch. Each flower is about one and a quarter inches in length by two in circumference. They all hloom at one time, and are as fragrant as a white lily, remaining in hloom from two to three weeks. No insect tronhles the tree, except honey bees, which seem to he very fond of the flowers. It never sprouts, hnt can he raised from the seed as easily as corn. The seed should be planted about the first of May, and cared for as other plants are cared for, care heing taken to give them a good soil and that attention which plants should always receive. For ornamenting yards or cemeteries we can think of nothing which would be more attractive than the tree spoken of.

Cornering the Harvest.

We find in the *Evening Post*, of this city, what appears to he a careful statement concerning a monopoly which, if its aims and proportions he snch as described, can be only prodnctive of hardship and loss to our grain growers. We give the facts for what they are worth, on the authority of the *Post*, and they are certainly of melancholy interest to all. What are our farmers going to do in their own defence and for mntnal protection? There certainly shonld he some nnited action hy which the large, strong farmers could aid the small from heing forced to sell, if the market should hreak too low. There onght to he an understanding and force of action ready for any emergency which may occur. The declaration of the *Post* is as follows:

It is a matter of no little interest to farmers how their grain crop this year, which is expected to he between 700,000 and 800,000 tons will sell, the price it is likely to command, and the freights that are likely to he asked. It appears to be the misfortune of California that all its industries, its manufactures, and its natnral wealth, are more or less controlled by rings. The injurious effect of this is universally felt. The arrangements made to

Control Our Grain Crop

By the great firm of Friedlander & Co. are no doubt fun, and lucrative fun at that to the boys, Faulkner, Bell & Co., Balfour, Guthrie & Co., Dickson, De Wolf & Co., *et al.*, who are in with the great I Am, but it is death to the horny-handed Granger, who is compelled per force to sell his crop at what he can get for it. In point of fact there is hut one buyer, and consequently no market, and at needs must be. When a certain old gentleman—nameless to ears polite—holds the ribbons, the farmer has to sell at the price fixed hy the cereal autocrat.

The Grain Ring

In its development has kept pace with the progress of the State itself. It is a small acorn grown to a mighty oak. As each new wheat-prodncing connty came into notice, in order that the farmers shonld not have to come to San Francisco, Friedlander provided it with a hnyer. The following list will give an idea of this branch of the hnsiness: For the Sacramento valley, Dreshack, Bain & Co.; for Butte and Tehama counties, Dorn, Bullard & Co.; for Merced and along the line of the railway, C. H. Huffman; for Solano county, Blume & Epengier, of Dixon; for San Joaqnin connty, Bestwick, of Stockton; for Yolo county, Thomas & Hunt; for Salinas valley, Ball; for the country on the line of the Southern Pacific, John Carter, San Jose. These gentleman buy all the grain they can lay their hands on, and Friedlander gives a portion to the other exporters hought for their account. The following firms stand in with Friedlander: Balfour, Guthrie & Co., Faulkner, Bell & Co., Dickson, De Wolf & Co., Ammon, Caspari & Co., Muecke, Victor & Co., W. T. Coleman & Co.

The Modus Operandi.

If a farmer has grain to sell and applies to any of these exporters, they will not hny except at the ring price, for fear of offending Friedlander. If they did bny he would shut down on them and refuse to ship anything on their vessels, and as grain is the export of the port this would mean utter ruin to any firm hold enongh to attempt it. The Grangers on this coast made a bold effort to hreak np the monopoly in 1874, hy supporting the firm of Morgan Sons, and attempting the direct exportation of their grain. Unfortunately the element of speculation, which seems to be inseperahle from everything Californian, has as mnch to do with our wheat trade as with anything else, and fortnne refused to smile on the effort. Onr wheat is shipped long before that of Prussia and France are in the market, hut by the time the vessel has crossed four oceans it is in full competition with the continental crop. The crop in Europe was very large that year, and the Grangers consequently lost money. The attempt made hy Morgan Sons to help the farmers by chartering tonnage to arrive, resnlted in the failnre of the firm in 1874, and since that time no vigorons effort has been made to oppose the ring, and this year all goes merry as a marriage hell.

The Preparations Made

To control the market this year are, as theatrical managers say, on a scale of unexampled splendor. On the way and to arrive before the 1st of September are vessels aggregating 272,000 tons register, all of which will be controlled hy Friedlander. Lying in onr harbor and already chartered for July and August loading, there are some 30,000 tons. Jim Keene has secured some 30 ships through Thomas Elmundson, who is in with the ring. The charters are for £3 2s 6d to Liverpool, and £3 5s to Cork for orders. The ships are consigned chiefly to George Howes & Co., Williams, Blanchard and J. W. Grace & Co. In the meantime Friedlander, through his agents, is buying up all the grain he can get at from $1.55 to $1.60 per cental.

The Corner In Ships

Is so complete that it would be nitterly impossible for them to charter on their own account, and as high freights mean low prices the farmers are bonnd to suffer. At present prices for wheat for forward delivery have an upward tendency as some purchases have been effected by W. A. Holcomb & Co., J. W. H. Campbell & Co. and Rodgers, Meyer & Co. This outlook is hardly promising for the farmers, but no one can tell what the whirligig of time may bring forth.

CORRESPONDENCE.

Traveling Correspondence.

NUMBER THREE.

EDITORS PRESS:—I have made a tour from Placerville, east by way of Smith's Flat, Pleasant Valley, Sly Park, and across south to Grizzly Flat, Indian diggings, Fair Play, and returned via Diamond Springs to point of starting. I then croeeed by way of Coloma, Kelsey and Garden Valley to Georgetown, where I write.

In all the region traversed there are small ranchee scattered here and there in little valleys, hid awey in the mountains, many of which are very fertile, and often exceedingly beautiful from their isolated position and general surronndings.

The great fruit and wine belt does not extend many miles east of Placerville. It becomes too cold as you ascend the monntains, in fact, places were passed where the snow covered the ground on the 21st of May to the depth of from 10 to 12 inchee. A snow storm, however, ie said to be unusual so late in the season.

In many seotions, the frosts following injured the fruit, but lower down on the main belt extending to the western boundary of the county there will perhaps be moro than an average crop.

Some of the richeet spots of land to be seen here is made land, where the placer mines have been worked out. The sediment is caught by throwing an embankment across the lower end of a valley or ravine, after first throwing out the looee rocks and leveling down the little hillocks.

What Has Been Done on Mined-Out Land.

Mr. Tripp, at Placerville, hae cut from this kind of land upwards of five tons of hay to the acre, and, if I mistake not, thought that as much as ten tons could be produced. Ten tons of potatoee was not an unnsual crop. Mr. Lyon, near Smith's Flat, has some of this land, which he valnee at $500 per acre, and well he may, when it bronght him $1,000 per acre last eeason. It was first planted in potatoes, and afterwards sown in turnips. He called my attention to another fact, which was confirmed by further obeervation within a few daye. A portion of his hill land was irrigated by water taken from the American river, and another part from water coming from some cement mines within eight. The two pieces of land are alike, the soil being of a rather inferior quality and sown in clover. The contrast was most striking. While one yield d an ordinary crop, the other was so enriched as to turn out as much as six tons of hay to the acre.

In Sqnaw hollow, six miles south of Placerville, Mr. Hoyt settled some yeara ego on a tract of land that had been mined out. By labor, skill and perseverance he haa bronght much of it under a fine state of cultivation, and is making of it a beantifnl and valuable place.

Mr. Fuller, in the same valley, has also a very rich spot, made from filing in an old reservoir. He has abont 400 acres. 200 of which lie below the water line, the Enreka ditch passing through his place, and much of it liee comparatively level. There is no better land anywhere than some of this bottom land, and much of the hill land ie very productive. Fine crops of grain and hay are raised, and as good potatoes as can be fonnd at Carson City or Salt Lake.

A ready market is had for them at home at from two and a half to three cents per pound. The water for drinking is pure. The valley is free from chills and fever. Frnits and vegetables of almost every variety can be grown. With all these advantages, good improved land can be had from $12 to $30 per acre.

Mr. Bell's Place.

At Indian diggings eome additional facts were obtained from Mr. S. S. Bell with reference to the Angora goat. He has a stock of 600 or 700 graded, which brings him something handeome every season from selling the meat in the vicinity. The meat has brought him from 10 to 12½ cente per pond. The milk is excellent for family use, the taste never being affected by weede. It makes as much butter, though ot not so good a quality, as that of the cow, and more cheese. The goat is herded with little difficulty, and is inclined to eeek the corrals at night, especially if a little salt has been furnished.

The length of thie article reminds me that some notes for the RURAL mnst be omitted. As an illustration of what is being done generally, though not on so vast a scale, in the great fruit range of the county, we have selected as a type

The Coloma Vineyard and Ranch,

The property of Hon. Robert Chalmere, of Coloma. In hia orchard there are nearly 2,000 trees, consisting of applee, pears, peaches, plums, nectarines, apricots and similar fruits. He has 110,000 bearing vines, all in good condition; employs nsually from 15 to 30 men, and makes annually from 30,000 to 50,000 gallons of wine, saying nothing of the amount of choice brandy turned out by two large distilleries. Everything is on a grand ecale, casks, tanks, cellars, all; Fulda's 1,600 gallon caske and 4,000 gallon tanks conspicuons among the number. Mr. Chalmere' cellers, three in number, and of no ordinary capecity, kept pure and clean, are filled to the brim, and throughout are most conveniently arranged. Sitnated on the slope of the mountain, his grape juice and his wine are conducted to cask, tank, or still as required without further handling. In short, neatness, order, system and economy are displayed in all the arrangements as well as in every appliance. There is every different kind of wine, Mnecat, Catawba, Tokay, red, white, new and old, eonr or sweet. to suit the puree or palate of the most fastidious.

Of hie white wines the Green Hungarian, I believe, is considered the choicest. Labor, skill and capital, ench as that, deserve a better reward. The best of wines may be had here for a song. The finest frnits eometimee scarcely pay for the gathering. K.

Botanical Excursions.

[By J. G. LEMMON.]

No. 2. The Northern Valleys and Lassen's Peak. (Concluded.) Part IV. Big Meadows and Lassen's Peak.

Escaping in about a week from the friendly people of Indian valley, not, however, without a second call at Dr. Hunt's, young Larsen and I hastened westward along the north shore of the valley, amidst ite enchanting groves and dells. At Aehem's ravine we tnrned off to visit a high valley and the Greenville peaks, a very eatisfactory side trip of two days, in which we collected a wooly variety or new species of the beautiful *cyclademia*, and a new *Lupinus onustus*. Next day we reached Greenville, a busy mining town, whose locality can be noted from far by the thunder of its quartz batteries and shriek of its engine whietles.

Here a party of four had arranged to join us, but failed to appear. As the weather was fearfully hot, perhaps they profited by tbe failure.

Alone we climbod the mountain road northward. We felt not the elightest loneliness as we toiled up the flowery way to the pass, 12 miles; beeides, we imagined the RURAL readers with us, and thonght of the rapture that wonld soon thrill them at the first view, and the interest that wonld fill their souls for daye while exploring in detail the crowding wonders ahead.

Lassen's Peak.

As at Pyremid lake the eye wes first riveted to the strange pyramids, so here you first gaze with awe npon the pyramidal mass of snow, rent with combe of black lava, that is reared against the eky in the far distance.

Not alone towers the majestic peak. On all sides it is embellished by scores of glittering pinnacles rising from an alpine region many miles in extent, all apparenly covered with snow. It was a refreshing sight that blazing July day.

This grand old landmark ie named for Pete Lassen, the old pioneer, and was visited and firet described scientifically by Brewer and King in 1863. Next to Mt. Shasta and the lofty group aronnd Yosemite, this is the most noted peak in the Sierra. This results not only from its great elevation—nearly 11,000 feet—but also from its conspicuous poeition, being in full view of the great valley of the Sacramento on the west, and the great basin of Utah on the east.

This has been availed of by the authorities, who have established Laeeen's peak as the corner of three counties—Plumas, Tehama and Shaeta.

Big Meadow Valley.

Down before us lios the great, ehield-shaped valley, its floor a green and yellow sheen of ripening grass. Like ornamental vines in bas-relief on the shield, are the waving lines of willows that mark the river courees. Round clumps of trees at their sources show the locality of the great springs, of which we have heard so much, while flocks of pelicans, wheeling lazily in the air over the valley, tell where the extensive lagoons are fonnd, green with hundreds of acres of pond lilies.

Landt's Big Spring.

Turning to the right, we first visit the great spring near Landt's old station. You hear the rush of water an eighth of a mile away. Preesing through the rank grass and over-hanging alders, you walk out on a fallen tree, and a startling yet lovely scene is before yon.

A river burets from out the white quartz rock of the mountain side and cascades down into this deep basin beneath. A liue of immense fountains, extending from the cascade through tho length of the pear-shaped basin, boil up from the bottom. Circles of waves show the locality and force of theae fountains, which even the rnsh of the mountain torrent cannot obliterate. The ontlet of this one congeries of springs is 15 to 20 yards wide, and is deep enough to float an ocean steamer. Has the earth anywhere its eqnal?

This is a type of the springs of this valley, and it is no wonder that visitors from far throng to the valley every summer to gaze npon these stupendous phenomena and to revel in their cool groves. The water is the clearest and coldest you ever drank, resembling the crystal, mountain-dietilled Tahoe. It flashes everywhere with silver tront, apparently but a few feet down, bnt your fishing rod needs 20 or 30 feet of line, so deceptive is the pellucid flood. Paddling ont in an Indian canoe you eeem floating in air, and freqnently pnt down your hand to determine where the two elements tonch.

Peering over the side you see plainly the white boiling sand of the fonntains, nearly covered with black globee constantly rolling about. Fishing one up from its home 20 feet below, you find it the globular nostoc, a ball of rubber filled with jelly. They are all sizes, from bird-shot up to a schoolboy's ball. This is a species of fresh water algæ, plants of the lowest order, a simple cell. In the river below are several other species; one a leathery, convoluted mass of gelatinous snbstance that fills a wash-bowl.

Down where the basin narrows to the outlet, a pair of white pelicans float, and bevies of mallard and divers are in pursuit of young trout. Among the luxuriant flora fostered by this spring, I found on my first trip with Prof. Case the beautiful *Corydalis Caseana*, and eeveral other rare plants.

Reinforcements—The Martin Brothers.

Croseing fields, meadows and stock-ranges to the farther side of the valley, we ere arrested and "corralled," as they say in the mountains, by Mr. Olsen and family, wealthy farmers, similar in dispoeition to the people of Indian valley.

While drying papers and re-organizing here for the further trip, the neighbors dropped in at night and two brothers, Oscar and Aurelius Martin, arranged to join ns, with a full equipment of suppliee and tne adeqnate courage, for the exploration of Laesen.

Driving along tho dim road np the mountain elopes, with these gallant brothers alongside, our quartette made a very agreeable party, not so small as to lack onthusiasm nor so large as to divide into schisms. Those brothers were a study, and by contrast. Oscar, the oldest, was stalwart, round-faced, jovial, daring, appreciative, intensely enjoying natural scenery off-hand. The other, Aurelius, slender, oval-faced, sedate, cautious, quietly appreciative, closely stndying with a mind trained by long acquaintance with books and teachor. Oscar carried a heavy rifle to reach for deer or bear, Aurelius a telescope; Oscar brought in rare plants from bog and rock, Aurelius classified them; Oscar admired their appearance and gave the virtnes ascribed to them by the Indians, Aurelius demanded their botanical names—carrying a note-book for the purpose.

Around subsequent camp-fires, after the nenal scientific discussions, which both enjoyed, Oscar made the welkin ring with eong and hnmorous story, Aurelius recited masterpieces of the old classics, or read original essays.

Hot Lake.

Arrived at Hot Spring valley, all proceeded on foot over a ridge a half mile to see a wonder.

Shronded in a dense wood is an oval basin 600 feet long by half as wide, filled with nearly milk-white, thickened water, kept boiling hot by fire vents nearly encircling it and apparently the cause also of the incessant bubbling beneath. A narrow, flat rim of white sedimentary matter separates the boiling water from the steeming bluff—the wall of the basin. Thie border is pitted with mush-pots, blow-holes and miniatnre volcanoes, from which issue, intermittently, steam, water and mud, roaring, spouting and apluttering, like an immense caldron of garbage. To complete the horrid scene and fix it in your memory, eulphurous gases roar out from holes in the bank and nearly suffocate you. Yonng Larsen, who had navigated the Meditorranean, exclaimed "How like the *solfataras* of Vesuvius!"

Hot Springs.

Two miles farther and the hot eprings are heard, a half-mile ahead. This group of noisy rents and vomiting craters is situated in a ravine down which oomes a small stream, cold as ice, till it falls into these repelling fire-holes, soemingly a volcanic fissnre. For two or more acres on each side the mountain has been fretted away, leaving only the hardest rocke, colored and spangled with irideecent crystals. Great hoppers are frequent, in which rocks are slowly eliding down to be dissolved by the fervent heat below, and carried away in both liquid and gaseous form.

Thoughtfully we stepped from rock to rock aronnd the roaring vents and funnels. The question presses, "Whence this terrible ebullition—this fervent heat? Comos it through a fracture in the crust of a molten globe, or ie it evolved chemically by the meeting of antagonistic elements but a few feet below the surface of a solid earth?"

Corydalis Caseana.

Leaving the wagon now and all taking to horse, we wind up through the forest of *Picea amabilis*, or red silver fir, eight miles, and Caseana valley is reached. This is a meadow or swamp of rank herbs and grasses skirted with alders and cut through with streams the banks of which are lined with the new *Corydalis Caseara*, which I have omitted to describe until we came to its home. Here the plant grows to the largest size and presents the finest appearance of any locality yet found. It is often found four to five feet high, and ita fragrance is detected 10 rods away. The abundant foliage is pea green, and the robnst branchee terminate in spikes of white flowers holding a purple swollen palatee in the open mouth, and provided with a large spur or sac of nectar below. The succeeding pods contain four to six black, ariled, hard seeds, that when ripe are thrown to a great distance by the valves of the pods. The slightest breath or touch, and woe to the cnrions eyes unprotected. With difficulty I have captnred a few seeds, as you would catch grasshoppers, and eent them abroad. Thriving plants are now reported in Cambridge, Philadelphia and Washington, also in England and tho continent.

King's Valley and Camp.

A prolonged ride over miry streems, up steep caving bluffs, along the base of a monntain of rock beautifully chiseled into columns, arches, towers, forts and cathedrals, and through another deep forest tangled with fallen logs, prickly monryineta end ceanothus, and the near Lessen looms grandly to view throngh a gap with a green little valley just at onr feet. This valley is generally filled with enow nntil August, but was now green, owing to the light winter pest. It was the rendezvous of Brewer and King end ehall be onrs.

Choosing a grove of eilver sprnce, *Abies Pattoniana*, we made beds of fir bonghs, lighted a camp fire and eat down to as fine a eupper, prepared by Larsen and Oscar, as a king enjoys. How many pleasant evenings that grove witnessed dnring the week following! Animated discussion, joke, story, eong, recitation, crowded the hours nntil the fatigues of the day overpowered the most hilarions and Morpheus ruled the camp.

Ascending Lassen.

We resolved to seo the sun riee from the summit of Lassen and groped threo honrs through the bushes and up the steep four miles to be enabled to do so, but daylight caught ns jnst at the base of the bald striped cone, which, as we gazed np at it, seemed interminable in its vaulting reach into the cerulean ether. We hoped to look down upon the sun from a perch of 10,000 feet and see him come ont of the morning clonds red-faced and battered; but no, the air was clear, and old sol bounded out of the Humboldt mountains as bright and ronnd as at midday.

Larsen and Oscar propoeed to climb directly np the eouth face. Aurelius and myself passed around to the west of his periphery and took the advantage of a longer grade. A comb of lava juts ont of the west side, extending with but few missing teeth from base to summit. In the gorge to the east of this lies a wedge of perpetual snow, its broad base downward and resting on a plateau of the same. Between thie snow wedge and the comb of lava is a space of a few rode of lava dissolved to ashes by the alternate snowe and suns of ages. Up this prepared trail we climb. Near the snow the water soaked ashes admit the climber to the knees, the sharp teeth of lava utterly forbid progress over them.

Happy were we if we found the golden mean. Having a botanical press along, we gathered the flowers by the way, *Eriogonum*, *Pentstemon*, *Hulsea*, *Draba*, *Gilia*—families so modified by the Alpine situation as to be hardly recognized. We had left tree and shrnb far behind on the plateau below, and fast appearing peaks rose over the foreet on every eide. Planting onr feet carefully in the ehelving rocks, we took hold of the comb teeth and pnlled our weary framee up from hnmmock to sag, and from rock to rock. As we were compelled to halt at intervals to breathe and take a swallow of water, the eye roamed over a wide landscape picture that brought brief exclamatione, but the light air and great fatigne forbade conversation. We had resolved at the start to keep on the eonth side of the comb, so as not to catch sight of the peerless Shasta until his head ahonld tower over Lassen's crown, ao for honrs we kept doggedly toiling on up the eonth face; bnt about half way np a few rods of teeth are broken away, admitting a full, glorious view of Shasta—not to be described in this place.

The mounting sun now smote our fevered heads, and we gladly took refuge on the north side of the comb, as we pulled up in its shadow. Peaks g istened, and half-broken craters yawned on the west, but we must leave off looking and give all attention of eye, limb and mind to the bueiness of climbing. Slowly we ascended. Often on hands and knees wae a dizzy rock ridge passed. Another swallow of water, and a long, terrible strnggle amidst sliding blocks of lava, and a high crag is reached, in the shade of which we drop exhausted. But beyond we see the soft, pumice stone brow of Laseen curving over, promising better climbing. We ehout to cheer each other only one word "Courage!" and strike heels into the ashes again. Up the eoft pnmice in the vertical sunlight, over the sliding shales in the motionlesa air, and another rock saves the faintiug pilgrims! A change of footing—a welcome change! Here the wedge of snow ascending the entire south face of Lassen is fonnd to be connected by a broad band—unseen from below—to a similar wedge-shaped mass descending on the north side into a vast crater.

It was down this steep of snow on the south side—thie precipice of deep pot-holes four to 20 feet across—that Prof. Case and I bounced, three yeara before, to the base of Lassen, nearly three-fonrths of a mile in lesa than half a minute! Shnddering, I carefully keep away from the brink now.

Across and above this iethmus of blinding enow, 300 feet higher and a fourth of a mile farther, frowns the spllutered topmoet spur, with a tiny acorn-like monument snrmounting it—the goal of onr efforts. The interrnpted lava comb grew bolder now, straggling and precipitous, but over it only is farther progress.

In our haste we miss the best routes, and often have to retrsce steps.

Arriving now at the base of the crowning spur, we find it shattered and channeled into labyrinthine chambers that often lead to the sheer precipice on either side. Retrscing and trying other passages we emerge at length into daylight, (with lichen-covered rocks on edge paving the nsrrow way before us. A hailing voice is heard, snd raising our eyes, there, composedly sitting on the monument, are our daring comrades of the early morning, a full half-hour before us in a direct ascent np the yielding ashes of Lassen's steepest side,—a signal triumph of pluck and muscle seldom recorded!

On the Airy Summit.

It would take a master pen snd many long paragraphs to picture the grand scene presented from the monument of Lassen that clear July day. I can only sketch its salient features. The view embraced 350 or 400 miles north and south, from Mt. Pitt and the snowy Cascades lesding the eye a hundred miles over the Oregon line, to the lofty peaks around Tahoe in the middle Sierra. The gridiron bars of the grest basin lay revealed on the east, and on the west perhaps 300 miles of the Cosst range, from its extreme northern buttes to Mount Hsmilton near San Jose. The Ssersmento valley lay like a map nnrolled, only that it bore in relief the buttes, groves, towns and bridges, and was graven with ravines, rivers and roads.

But the eye is withdrawn from these distant objects in spite of the will, and fixed upon two nearer ones; the one a single peak so lofty, so white, so pure, thst all the snswering attributes of your soul stir within you at the sight; the other a row of peaks whose composition snd contour fill your mind with imaginings most dire, and your spirit shrinks aghast!

The first, the pearly white spire piercing the skies, is the Red man's " snowy throne of Yopitone,"

Mount Shasta.

Shasta is the crowning peak of the Sierra, the cynosure of sll eyes in the Sacrsmento valley.

It is 14,442 feet high and in such latitude that the upper 3,000 feet of its spire is almost perpetually covered with snow. It is 70 miles north-west from Lssssen, but, seen from the latter, the observed and the observer both being above the humid atmosphere, it seems not half so far, so distinctly does spur and ravine, crag and cave, appear to the unaided eye. On my first visit to Lssssen, three years before, Shssta presented a greatly chsnged appearance that wss truly sppaling.

Dust and smoke enveloping the whole country to the hight of 8,000 feet, completely obscured the base of Shasta, leaving the grest white mass apparently floating on the rolling dun. Where was the iceberg sailing? Might it not come crashing along this way, or worse, topple over and crush our little snowbsnk to atoms? But to-day it touches bottom, and is fixed to a broad base. To-day its relation to the Sierra is seen, as its grand, culminating head, high-resred and turned westward sufficent to keep watch and ward over the Sacramento valley.

The other object chaining the mind and freezing the blood, is nesrer still.

A Phalanx of Volcanoes.

Lassen is the highest remaining spur of a once continuous range of colosssl volcsnoes crossing the Sierra from east to west. Two of them on the east, nearly in line, may be seen with perfect crst-rs, round as a caldron, sunk in their tops. Directly opposite is a tall, shining shaft, nearly as high as Lassen, and beyond it similar pesks, all presenting one precripitous side, stratified and colored by volcanic fires. This is perfectly evident from Lssssen's standpoint, but several days of subsequent exploration proved them to be a rsnge of a dozen pinnacles, extending 20 miles, esch the remaining spur at the side of a vast crater.

Some presented opposing sides so marked as to prove companionship and indicate a crater between them many miles across.

Lassen's Crater.

And here, right at our teet, yawns an immense crater, 800 feet deep and half a mile across. At four points on the rim are left spnrs of trachyte lava facing inward, upon the highest of which we are standing, 10,577 feet above ocesn level, now; but where were ocean, bay, plain snd mountain rsnge in that age when this crster, in company with its phalsnx of brothers, with esrthquake energies vomited lava and granite boulders from the globe's molten center, and poured them over the surface, perhaps converting an ocean into steam or a primeval forest into ashes, when as yet the vast Sierra in all his present grandeur, was not?

Conclusion.

I have abridged much, yet trespassed far, dear reader, in order to finish the northern trip with this fourth number. I cannot tell you of those other explorations westward; those perilous ascents of pinnacles never before scaled by man, or name the rare plants we brought away. I cannot present the scientific parties we met on our return to Big Meadows, nor even allnde to the instruction there imparted by Dr. Harkness with his microscope. We were gone six weeks and traveled 400 miles, bringing in a wagon load of trophies, such as Dr. Gray requested. One of the new ones from the very summit of Lassen he named *Gilia Larseni*, in honor of my companion, John Larsen; and another, growing near the home of the Martin brothers, will be called *Harkelia Martini*.

And now, dear reader, we have examined briefly some of the valleys and peaks—the decorative jewels, as I called them—of the broad breast of the Sierra. Need I nsme the last described? The volcanoes of the Lassen phalanx are the blazing stars upon the epanlettes; the peerless Shasta is the Koh-i-noor in the crown of Prince Sierra!

Agricultural Specimens for the University.

Editors Press:—As the harvest is at hsnd, I desire to circulate through your columns a request which I hsve frequently msde heretofore, for contributions of specimens to illustrate the course of sgriculture st the university. The products of California are thus far but very thinly represented in the university collection, so that a visit to the Centennisl fsir at Philadelphia would be vastly more instructive in this respect thsn snything now availa. ble at Berkeley. It is extremely difficnlt to obtain a collection of this kind otherwise thsn by the voluntary co-operstion of the farmers; st the ssme time, the importance of this means of illustrating and snpplementing oral instruction is too obvious to need discussion. A very little attention and exertion on this behalf by a few men in each county would in a single season supply this pressing need of the agricultural department, and give to the university a cabinet usefnl not only to the student, but extremely interesting to visitors from all parts, who rarely fail to give a few hours to the State university.

The class of specimens specially desired is, of course, agricultural products of the less perishable sort, both in their nstural and marketsble condition; particularly such as are not ordinarily obtsinsble in the markets of San Francisco, or sre otherwise remarkable as to kind or quality, *e. g.* all kinds of grsin in the ear, tied in bunches of a dozen or two. These should be gathered a week or so before resdy to cut, hung up to dry thoroughly, and put up by rolling in stont wrapping paper. Give nsme of donor. exact locality, kind of soil on which the ss ple was raised and name of variety, together with any other particulars that may throw light on the conditions of growth.

Another class of specimens much desired for purposes of instruction, is the materials and products of the various manufactures of the State, especially such as have any connection with agricultural pursuits. Such sets as those illustrating the various stages and products of sugar refining, and of the Alden process of drying. already in our cabinet, will be especially welcome.

Wells, Fargo & Co.'s express has generously offered to transport specimens for the university collections free of charge. Donations received will be promptly and thsnkfully acknowledged. Eug. W. Hilgard.

University of California, June 6th.

Arboriculture

The Cork Oak Tree.

Editors Press:—You ssk for information in regard to cork oak trees in California. I csn tell you about two only, which I planted in the winter of 1860 and 1861. I got seven acorns and they all came up and grew finely. When two yesrs old I gave five away and think they went "the way of the earth," by neglect. The two I kept are all right. One is in the same spot I planted the seed, the other I removed when two years old about two rods. The trees are now 40 feet high, four feet six inches at the top of the ground in circumference, and three feet six inches in circumference eight feet from the ground. The bark is one and a half to two inches thick, and there have been lots of Eastern visitors taking samples of it along. One Chicsgo fellow with tight pants made a good stopper to a small blsck pocket demijohn and did not ask a fellow to "take su'hin'."

The wood is very tough. I used a piece two months for a stake, and drove it twice a day with an old axe, and it did not broom up or wear out. I keep the trees to look at, and keep them trimmed up so they will not shade other trees. They are 25 feet to the first branches. They have had the ssme care as the rest of the orchard, peach, lemon and orange trees. and they have not been irrigated since the 5th of May, 1874.

I think the trees will do best when planted where they are to be grown, although the one I transplanted is fully as large as the other, but not so straight. They have been bearing acorns three or four years, and I got a box fixed up for you more thsn a year ago, but kept putting off sending till I was ashamed of the dates and planted the seed.

I have got quite a lot growing about the fence for a wind-break. They grow very full of limbs from the start, and are a fine looking tree. My place is in San Gabriel district, adjoining Lake Vineyard lands and Col. Kewen.

We cannot get along withont the Rural Press, and look for it as much as we do for a dinner. C. G. Hutchinson.

S. Richardson.

Los Angeles, June 3d, 1876.

The Dairy.

Dairying in Kern County

Editors Press:—I have been making cheese on the Livermore ranch since the 13th of April. For five days we msde skim cheese, and since then full cream cheese. We have nsually good luck, and hsve made considerable fine cheese. We mske them on the Eastern "home dairy plan" in color, but firmer in texture, with uncolored bsndage, and they are very much liked here, as Eastern style of cheese seems to take the preference. The style seems cleaner, with the color that takes through the bandage when the curd is slightly colored and care is taken to keep the outside clean. We were troubled with tainted milk at one time and have had several "floating curds" in their simplest form. The thermometer then stood at 96 deg. Since then we have had cooler weather.

The Temperature.

I have tempered my cheese ss best I could, for hot weather or approaching hot westher, by getting what reliable information I could pick up from the people thst have summered here for the past three yesrs. One finds a wide snd varied difference of opinion among the people in their expressions of what hot weather is; but the thermometer tells the story—112 deg. Fah. This seems to be the hight of the hot weather. The sun is very hot through the day. There is a heavy atmosphere to retain the heat, and dry, sandy plains to send hot winds in the day-time, but it also cools rapidly after the sun has disappeared, and a cool breeze generally comes down from the cosst at midnight, and one will find himself pulling the second blanket over himself about this time.

Milk and Feed.

We msde butter until the natural grasses were between green snd dry, before we began cheese making. Then the flow of milk was less, but there was sn sbundsnce of cream. Then, when the grasses becsme entirely dry, the flow was less, and the curd hsd the sppearance of hay-made cheese. Now, we hsve alfalfa grass during the day. The dairy is ahead of time here, for the fields adjacent to us are not plowed and seeded to alfalfs, and the cows are herded on a field some two miles away.

We have been experimenting some with air blown through the milk, but hsve not perfected our arrangements yet.

Flies.

The greatest drawback yet to dsirying is the flies. Everything has to be covered up, the vat as well, with thin gauze or fly netting. This retards the working of the old agitator. I cannot impress the word fly on your miud as it exists here. The dairy of course attracts its shsre of flies.

The Livermore Ranch.

This ranch contsins 11 sections of land, snd as much more as csn be reclaimed out of Kern lake. It is two miles wide, five miles on one side and six on the other. It is all fenced in and has its center fence, so it lies in two strips yet to be subdivided. It will take two years yet at the present rate of plowing and tillsge to get this part of the ranch seeded to alfalfa. Mr. Livermore is expending a vast amonnt of money here.

Extract of Rennet.

I began to write more psrticularly to know if you have ever been scquainted with, or have learned anything concerning the "extract of rennet." Two years sgo Prof. Caldwell, of Cornell university, exhibited some at the Americsn dairy sssociation, and he then thought it would be a success. We have to buy all of our rennets, and it is so hot snd the jar of rennet has to be closely confined to keep the pests out. Also, there is considerable risk of not getting good rennets. If I could get the extract I would prefer doing so. O. R. Carpenter.

Bakersfield, Kern Co., June 4th.

Our correspondent, Mr. Carpenter, came to this State last fall. He was one of the best cheese makers in Herkimer county, N. Y. Being then in Central New York, we selected Mr. C. out of 40 applicants for a situation which Mr. Souther, manager for Mr. Livermore, desired us to fill for him. We are glad to hear that he is doing well. He understands the business and will succeed in any region where dairying is possible.

Mr. C. notes several interesting points in his letter. One is putting the color into the cheese instead of the bandage. The good effect of our cool nights is clearly seen in Kern county. Were it not for the cooling at night it would be absolutely impossible to make a good cheese under the temperature which exists in the day-time in Kern county.

The extract of rennet alinded to would be an indispensable thing in a hot region if it can be prepared successfully. We are not aware that any practical demonstration has been made of it yet. There is more poor cheese made because of poor and tainted rennet than from any other cause. If an extract could be furnished of uniform strength and with some antiseptic introduced to preserve it from taint, it would be valuable almost everywhere.—Eds. Press.]

Horticulture.

Hints for Eastern Shipment of Fruit.

Everything which tends toward a better nnderstanding of the demand for California fruit is of valne to onr fruit growers. We have received from Davis & Sutton, 75 Warren street, New York, a circular stating the kinds of fruit which succeed best in the Eastern msrkets, and giving hints concerning the best ways of packing and shipping. As the writers have had considerable experience in handling California fruit at the East we regard their statements as worthy of attention:

The summer fruits should be send by passenger trains to insure their arrival in good order. We commence the season with esrly Moorpark apricots and early pears as follows: Bartlett, American Russet, Louis Bon. White Doyenne; also a few early Peach plnms. And a little later we receive the following varieties of pears and plums: Doyenne du Cornice, Beurre Hardy, Onondaga and Flemish Beauty pears; Bradshaw, Coe's Golden Drop, Jeffrson, Magnum Bonum, White Egg, Duane's Purple, Wsshington, Columbia and Quackenboss plums. Also the Gros Prune d'Agen and German prune. This comprises the list of summer fruits, but some of the above should be more liberally shipped than others. For instance: The Bartlett, White Doyenne, Doyenne du Cornice and Beurre Hardy are special favorites; snd in plums the largest find the best sale, such as Bradshaw, General Hand, Dnane Purple and Gros Prune d'Agen. The latter is sn excellent variety and commands more money than any other, as they come in very good order.

The fall and winter pears are as follows: Beurre d'Anjon, Beurre Clairgeau, Duchesse d'Angonleme, Glout Morceau, Winter Nelis, Vicar of Wakefield, Beurre d'Aremburge, Doyenne d'Alencon, Pound and Easter Beurre. All these can be sent by slow freight at one-half the expense. Of these we recommend the largest shsre to be Winter Nelis and Easter Beurre, snd s liberal share of Beurre Clairgean, Glont Morceau and Duchesse pears. The Winter Nelis is one of the best pears we get. It is adapted to all classes of trade on account of its superior quality. The Beurre Clairgeau is also a favorite, owing to its size, shape and handsome color. The Easter Beurre comes stter the others are out of the market, snd is an excellent shipping pear. We have secured quite a foreign demand for them, snd each year it is increasing. We have endeavored to give you the best varieties to ship. You msy ssy we have omitted one kind of fruit (the grape) which is one of your largest productions. It is not because it would not find a resdy msrket, but hecsuse they do not arrive in good order. We sre in hopes thst some mode of curing and packing, similar to varieties sent from Spain, will be adopted If it can be done we can find an outlet for immense qnantities of them.

We propose giving some important suggestions in selecting snd packing fruit. Select the largest and smoothest fruit. Small or gnarly fruit is not desirsble, neither does it pay for transportation. And it is a very poor plan to pack large fruit in the top and bottom, and small in the middle of box; it is soon fonnd out and does more harm than anything else to a brand of fruit.

Wrap the fruit carefully in soft manila paper, (light yellow) completely covering it; it looks better and packs better. Do not use common brown straw paper. as it is too coarse and bruises the fruit. Let the fruit be packed carefully snd tight. Have the boxes full to prevent it from moving about by the constant jar it undergoes in its long journey. If well packed the boxes average 48 to 50 ponnds gross. Have stencil plates for each variety, and be very careful to mark each box correctly. It often occurs a fall pear is marked a winter variety, and the box may not be opened for months, and when opened it is found spoiled from such neglect. Plums should be wrapped the same as pesrs, and particular pains taken with them in packing, as they are more delicate than pesrs and very easily bruised.

Have the package made of well seasoned wood, light and strong and neatly finished. Nail a strip across each end on the top of the box for ventilation when tiered in the cars and it also prevents bruising the top layer of fruit when the boxes are packed full, as they should be. Another caution to the shipper is not to pick pears too green and have them shrivel and not ripen. This quite often occurs and creates dissatisfaction among buyers.

Staining Growing Wood.—Professor Stebbing, in a letter to one of the photographic journals, declares that, ere long, we shall be able to have all our furniture—even articles of common deal—of such a beautiful color as to throw out of fashion mahogany and other foreign woods. A Frenchman has discovered a new method of compelling the tree to color itself. He operates upon it at the moment when the sap is rising after its winter's repose to give life and vitality to the branches He introduces a chemical (how?) into this vivifying agent, and it distributes the coloring composition through every pore and fiber of the tree! When the coloration is terminated the knots and veins contain such a multitude of shades, harmonizing one with the other, that furniture made of it has at once a strange and fascinating appearance.

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. Webster; Secretary, Amos Adams.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Copies of the Constitution and By-Laws of th National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. of H.—Subscribers who pay fully one year in advance for the Pacific Rural Press can receive the California Patron *free*, besides other premiums. See our premium list in another column.

Points of Value in the Grange.

At a late meeting of Galt Grange an address was delivered by Bro. Fifield, from which we select the following points of value which the Order possesses:

The farming community is isolated and apart when concert of action is needed. Concerted action is needed that our productions shall reach the consumer the nearest and cheapest way. The Grange may be and is such a center of action. We may in a proper manner and by using reasonable means compel a reduction of the large profits of dealers. As an Order we are doing this.

The Grange is a center from which we may gather more intellectual improvement than through any other means possessed by the farming community. The opportunity is here afforded to gather information from within the circle of our own Grange, our country, our State, the whole United States. The information is so various and practical, and through any other means not so thoroughly obtainable by the great mass, that I believe this to be a living object of itself for the perpetuation of the Grange.

You are aware that we are placed in direct communication with the various State Granges, whereby we can get information upon any subject or pertaining to any matter of which we may wish or of which they may be in possession.

The Social Advantage.

Another reason for the perpetuation of the Grange is the intermingling of its members in social intercourse—the interchange of opinions, not only on agricultural matters, but upon all topics of general interest. From a social standpoint it would seem to be, of all the great Orders of the United States, the most perfectly organized. Mothers, wives and daughters are a part of the organization. I claim this to be the great social perfection of the Order. This feature not only gives tone to the Order, but brings into it a fascination, a pleasurable attachment that could not be otherwise supplied. We cannot place too great stress on this feature of our Order. Wives, mothers and daughters are all interested in our welfare and progress. Their advice is for our advancement; their good wishes are for our prosperity. The influence of their presence as a part of our organization is not to be overestimated.

The Pecuniary Profit.

I would say to the members of the Grange, that the pecuniary profits derived from the Order are more of a general than individual nature. The known fact that the Order, in this and other States, is doing a large and successful business, operates upon dealers generally to lower their prices, and I have no doubt we gain in this general way, nearly, if not quite five per cent. on the large proportion of our purchases, and this, bear in mind, is a part of the general influence of the Grange. If any members of our Order, in the purchase of merchandise, have expected, through the influence of the Grange, to get a reduction of dealers' rates to the amount of $20, $15, or even $10 on $100, they have, as a matter of course, met their disappointment before this, and in some cases, perhaps, have condemned the Grange as a failure. If so, and there be any present who have come to this conclusion, I would ask them to reconsider this matter, and examine again, whether or no they have placed the "percentage off" too high.

Labor for the Reward.

I have named, as I think, some of the reasons for the existence and preservation of our Order; I have named some of the benefits to be derived from it; but, Patrons, we cannot gather to ourselves any of those benefits and advantages by inaction. We can no more gather profit from the Grange without labor than we can large harvests from our farms and sit in idleness.

To realize these benefits, it requires thought, it requires action, it requires unity. If we wish, as Patrons, to accomplish any given object, we must move intelligently and in a harmonious body. If we wish to gain a point for our mutual advantage, and a proposition to this effect is brought before the Grange, each individual member should fully understand this proposition in its whole sense before voting, and the Grange is under obligations to extend time for such consideration.

Suggestions.

I would recommend for your consideration the establishing of an embryo library, a beginning that we may add to as circumstances may permit. A collection of books, statistics and special reading matter would be a substantial addition to our Grange.

I would also recommend for your consideration the appointment of a special committee whose powers should be to give form to our exercises and amusements; while in session, aside from regular Grange business, to originate and bring before the Grange subjects for consideration and discussion. This would not in any way interfere with the privilege of any member making suggestions for the good of the Order. In my opinion such a committee discharging their duty would tend greatly toward giving activity, compactness and organization to a Subordinate Grange.

Worthy Master's Decision.

In regard to Subordinate Granges having to pay dues on suspended members, although seemingly unjust, I have been compelled to so rule because if you will examine the constitution of the National Grange you will see that the State Grange is required to pay to the credit of the National Grange, the "annual due of five cents for each member in the State." It is also required (Sec. 2, Art. 7, N. G. C.), that "the Secretary of each Subordinate Grange shall report quarterly to the Secretary of the State Grange * * * and pay a quarterly due of six cents for each member."

Although a member may be suspended for non-payment of dues, or for some other cause, nevertheless he or she is still a member of the Grange, and according to any reasonable construction of the law, must continue to be so until expelled. The remedy for this hardship is within the reach of every Subordinate Grange, for it is clearly within its jurisdiction to expel any member for non-payment of dues.

If the Granges wish to make short work of this class of cases, let them incorporate in their by-laws the recommendations of the Executive Committee, as published in the appendix to the proceedings of our last State Grange meeting. Each Grange can, of course, modify or change said recommendation to suit its own special requirements; but something similar should be incorporated into the by-laws of every Subordinate Grange in the State, in order to meet the cases of curiosity seekers and adventurers who are hanging on to the skirts of the Grange waiting for something to turn up.

J. V. Webster.

From the Granges.

Antioch and Point of Timber.

Editors Press:—In accordance with a previous arrangement I attended Antioch and Point of Timber Granges on Saturday, May 27th. The Antioch Grange met about noon, was called to order and set to work by the W. M., and after the regular work was done, the fourth degree was conferred upon a sister and a brother, the undersigned officiating, when an ample feast was spread and ample justice done the same by all present without instruction, all having been well drilled in the use of the necessary implements previously, it being their custom to have a feast at each meeting of their Grange, not only for the material man but for the soul also. They have a Committee on Entertainment their names I did not get, but from what I saw and heard they do their work well; and if this example was followed by other Granges I have no doubt but what the result would be decidedly good. A Miss and Sister F. M. Watkins was to select and read a piece for the entertainment of the Grange. The selection was very good (The Apple Tree), and read with the very best effect, calling out hearty applause at the conclusion of the reading. Aside, Messrs. Editors, the marrisgeable brothers of the Order would do well to attend the meetings of the Antioch Grange.

After instructing in the secret work and some general remarks for the good of the Order, the Grange closed, all feeling that the time had been well spent.

I then went to Point Timber Grange, where instructions in the secret work and remarks for the good of the Order occupied a portion of the time, but a discussion of the local interests of the Grange elicited the fact that they fully understand and appreciate the situation, and notwithstanding the many serious losses sustained by the failure of Walcot and others, there are many members in that part of our county that know no such word as fail in this glorious cause.

Our failures are mainly attributable to a want of closely and carefully studying our resources.

It matters not how just or righteous our cause or how clearly we understand all the grounds of complaint, to make a mistake as to the resources at our command is and of necessity must be fatal and sooner or later end in a disastrous failure.

The crops in that part of the county are very good, many of them splendid and out of all danger from everything but fire.

N. Jones, Dist. Dept.

Lafayette, June 4th, 1876.

National Ranch Grange.

Editors Press:—It is hardly fair, I think, to be the recipient of so many good thoughts as we find in your columns from the Grangos, and never contribute our share for the benefit of others. I very rarely see anything from San Diego county Granges, and from ours but once, I think, during our existence of more than a year and a half. It might be inferred from this silence that we are in a very quiescent state, which is not particularly the case.

Ten new members have been added since our organization. It is impossible to estimate our financial growth, as it has been the result of numerous conversations on different methods of cultivation, and the stimulating of greater activity in tree planting, etc. Socially, no one will question the advantages arising from our pleasant intercourse at the meetings of the Grange. One charm of these gatherings is the diversity of ages here represented, where the young may gather experience from those who have climbed the rugged hill of life, and thereby avoid the rough paths which are open to all untried feet. It also gives vivacity to age, and thoughtfulness to youth. Our oldest member has passed his 74th birth-day, and is one of our most regular and wide-awake attendants.

Almost from our organization we have sustained a manuscript paper, called the "National Ranch Granger," which is the medium of many valuable ideas and pleasant thoughts that would find expression in no other way. I see by the last Rural Press that San Jose Grange has a paper also, and I believe it might be made a valuable auxiliary to all Granges for a free interchange of thought.

I noticed, in the *California Patron*, W. Master Webster's reply to a correspondent's question, "Who are eligible to membership?" His reply, founded on the constitution of the National Grange, is of course final; but there arises the oft-recurring and knotty question, "What shall we do with the women?" Probably not one woman in ten thousand is "engaged in agricultural pursuits to a greater extent than any other business." If the wives and daughters of farmers are eligible by virtue of being wives and daughters, then crumbles the chief corner stone of our beautiful structure, for we claim the equality of woman with man. Household duties do not come under the head of agriculture any more than blacksmithing, teaching, sewing or shoemaking—in farming districts all these trades are needed. The wise and good men who instituted the Order of Patrons merit the blessings and thanks of all future ages—and yet it is impossible that the organization can be so complete that no changes for the better can be made.

Flora M. Kimball, Sec'y.

National Ranch, San Diego Co., June 3d.

Alhambra Grange.

Although we were sanguine that the Alhambra Grange party, given at their hall on Friday evening of last week, would be one of the most attractive and enjoyable of any we have ever had, the reality greatly exceeded our expectations. The party comprised nearly or quite three hundred persons; and, though the handsome upper hall, spacious enough for any ordinary assemblage, was rather stinted for the great number who on this occasion were ready to mingle in the mazes of the dance, the ample room below had compensating attractions as a social exchange, even before the guests were called to the tastefully embellished and bountifully spread tables, extending in parallel rows down through the arboreal decorations of the long western wing of the building, making a picture which, with little effort of imagination, might pass for an enchanted forest banquet bower. Without exception the party is pronounced by those who attended it the largest and most enjoyable they have ever known in the county. All the arrangements and provisions were admirable and most liberal. The music by the San Pablo band was excellent. The ladies were prettily but not elaborately attired, and a very cordial social spirit, above all, characterized the party. Financially it realized somewhere about $250 net, which, with $200 previously contributed by the members, will enable the Grange at once to obtain a first class piano, that will greatly contribute to the pleasure and interest of their ritual services and social meetings. —*Contra Costa Gazette.*

Tehichipa Grange.

Editors Press:—Our Grange is receiving new members every month. Last night the fourth degree was conferred on a class of three.

In our last letter we stated that the crops would be unusually good, but owing to late frosts the wheat and barley that was headed is damaged considerably, and a great deal of it will have to be cut for hay. The farmers are all busy harvesting. Everywhere is heard the clatter of machines and the busy hum of farm life. Some one writing from Bakersfield to a Nebraska paper says that men are hunting work for $1.00 per day, but our farmers can't get enough hands for $2.00. Poor fellow, he must be grasshopper hungry.

The S. P. railroad track is within five miles of our town. The road will be into the valley by the first of August or thereabouts, when it is thought the company will establish a depot for receiving and delivering freight for the mines of Inyo county. P. N.

Tehichipa, Cal., June 4th, 1876.

Panama Grange.

The following resolution has been passed by Panama Grange, No. 139, in Kern county: Whereas, the trespass law, as applied to the county with the construction our courts put upon it, is of no avail, it is by Grange No. 139 Patrons of Husbandry, *Resolved*, That while we would in no way encourage the killing and sale of trespassing animals for profit, we tender our sympathy to those who are oppressed by such stock; and in case no other way opens to protect crops, will hold the life of an animal of no more account than human life, which the law and public opinion hold us justified in taking in defense of our lives and property.

Florin Grange.

George Rich, Secretary Florin Grange, Sacramento county, writes: "Our strawberry festival passed off very pleasantly. Every one is very busy now getting their various crops cared for. We have had a cool spring and crops in this valley will turn out handsomely."

Carpinteria Grange.

A correspondent writes from Carpinteria Grange in Santa Barbara: "The Grange is strong, having 65 members and containing some excellent workers."

In Memoriam.

Rutherford Grange, No. 166, Napa county, adopted the following resolutions June 3d, 1876:

Whereas, Since our last meeting the Almighty in His infinite wisdom has seen fit to remove suddenly from our midst our esteemed Worthy Master, G. S. Burrage; therefore

Resolved, That in his death this Grange has lost one of its most efficient and faithful members, and the community one of its best citizens.

Resolved, That we extend to his family our heartfelt sympathies and condolence in this their sad affliction and sore bereavement.

Resolved, That these resolutions be entered on the minutes of this Grange, and copies be sent to the Rural Press and Napa county papers with request for publication.—[Committee: J. R. Garner, D. K. Dille and H. W. Crabb.

Vacaville Grange, No 5, Solano county, has adopted the following:

Whereas, Our all-wise Father has taken from us our worthy sister, Julia Posier, therefore be it

Resolved, That in the death of Sister Posier, Vacaville Grange has lost an esteemed member and true Patron, and the bereaved family a kind and affectionate mother.

Resolved, That a copy of these resolutions be placed on the minutes of the Grange, and a copy be sent to the relatives of the deceased and to the Pacific Rural Press for publication.—[Committee: Mrs. J. W. Bingham, Miss Jennie Wells, Miss Clara Davis.

Whereas, It has pleased the Great Master of the Universe, by virtue of the inscrutable laws on which we hold our being, to remove from the earthly field which it was his pleasure to cultivate and improve our esteemed brother and colaborer, Daniel Kennett Rule; and

Whereas, While we bow in humble submission to the stern, unyielding decrees which disappoint our worldly hopes, we feel it our privilege to mourn the loss of a genial companion, a more than ordinary intelligent man, a most faithful and devoted member of our association; therefore be it

Resolved By the St. Helena Grange, No. 30, Patrons of Husbandry, that we attest our high appreciation of the virtues of our deceased brother by endorsing the sentiments expressed in the above preamble,

Resolved, That we extend our sympathy and condolence to all surviving relatives and friends of Brother Rule.

Resolved, That a copy of the foregoing resolutions be spread upon the minutes of this Grange, and that a copy be sent to the Rural Press, St. Helena *Star* and other county papers for publication, and that a copy be forwarded to the Grange (of which our brother was temporarily a member) in Saline county, Mo.—[Chas. A. Storey, Secretary.

At a special meeting of Sunol Grange, held on the 3d of June, a committee of five was appointed to draft resolutions expressive of sympathy and condolence with the bereaved families at the loss of two of our cherished members:

Whereas, An Over-ruling Power suddenly removed from our midst, on the 12th ult., our much esteemed sister, Mrs. M. E. Cooper, and on the 25th ult., without a moment's warning, our highly esteemed sister, Mrs. Lisetta Neusbaumer, therefore be it

Resolved, That in the death of our beloved sisters this Grange has lost two worthy and efficient members, and this community ladies of the highest social attainments.

Resolved, That we tender to their bereaved families and relatives, and those bound by ties of friendship and affection, our heart-felt sympathies in their sad and great affliction. "Their names shall not perish while time bears our feet through the valley of years."

Resolved, That a copy of these resolutions be sent to the bereaved families, that they be placed on record, and that a copy be sent to the Rural Press, Alameda *Independent* and Livermore *Enterprise*.—[Committee: Mrs. Black, Mrs. Baker, Chas. Hadsell, S. W. Millard and G. I. Vandervoort.

The Debris Question.—Mr. Honsn, Secretary of Yuba City Grange, writes to the *Sacramento Valley Agriculturist* that over fifty of the Subordinate Granges have adopted resolutions in sympathy with the action of Yuba City Grange, condemning hydraulic mining as prosecuted to the detriment of farmers.

Alfalfa for Hogs.—*Delta*, June 8: Mr. Spencer, of Grangeville, is now fattening 170 hogs, by feeding on an improved plan. He has racks, like those used for sheep, from which he feeds them with alfalfa only. They are doing finely. He has five acres in alfalfa, which he has already cut once, and will soon cut again. The first yield was three tons to the acre, and he estimates the present crop at two and a half tons per acre. He has, this season, been trying the experiment of raising Osage orange hedge, of which he now has 60 rods set out. It thrives beyond his expectation. It requires about four years in the East to grow a good hedge, but Mr. Spencer says he will guarantee that it will here make a fence the first year capable of turning stock

Agricultural Notes.

California.

COLUSA.

The Plains for Vegetables.—Many people have been of the opinion that all the vegetables to supply the county must come from the low lands of the river, but this idea is fast being exploded. All that is needed to produce both fruit and vegetables on the plains is cultivation. We are in receipt of a very fine bunch of lettuce, a radish ten and a half inches in circumference, and a turnip measuring twenty inches in circumference, from Mrs. Goche, who resides on the plains. It will not be long before every farmer in the county will produce everything of the kind he consumes on his farm. We know one farmer who has made a rule that he will do without any article that he can produce on his place, and fails to do it. The farmer who does this in this State, need not buy much.

FRESNO.

A Lesson on Water.—*Expositor*, June 10: There has been considerable complaint on account of scarcity of water, but the complainants have learned a valuable lesson, and that is to use the water earlier in the season when it is plenty and then thoroughly saturating the ground, obviating to a great extent the consequent rush occasioned by putting off watering until late. A new feature in farming has been tried here this season which bids fair to eclipse the wheat raising business; it is the growing of pearl or ball barley. It ripens earlier, yields well, and brings a higher price in the market. The cool weather of the past few days has had a very beneficial effect on the ripening grain.

KERN.

Rice.—*Courier*, June 10: Some of our Southern brethren who have located near the Buena Vista slough, have decided to try the planting of rice on the low lands in the neighborhood. A great deal of that territory could be protected from overflow with an embankment one foot in hight. By keeping the water off until the rice was well started, the water could be let in whatever depth might be needed by constructing what they call checks, which does away with the necessity for leveling the ground to any great extent. They can see no reason why all these lands now useless could not be made to produce an excellent crop, and, coming as many of them do, from portions of the South where the raising of rice was a specialty, they ought to be reasonably certain of the result. Some attempt was made with the crop on Sacramento river, but the difficulty in controlling the water caused it to be abandoned. The Chinese who have spent a good part of their lives in the labor of producing rice would be well adapted to the work. There are 60,000 acres lying between Buena Vista slough and Tulare lake, which could well be devoted to this industry, and it is to be hoped the experiment may be speedily tried, and that it will be successful.

Large Introduction of Cattle.—Several of the farmers on the island are making preparations to buy stock to consume the abundant feed. Dr. Thornton left for the South Fork on Monday, to buy cattle, and expects to purchase from 4,000 to 5,000 head. It is estimated that the Haggin & Carr farms will furnish 10,000 tons of hay, besides making room for great bands of cattle and sheep. The same parties have already purchased about 25,000 head of sheep. Cattle are becoming scarce in the hills. Nearly all the small bands have been disposed of, and most of them have been fatted on alfalfa and sent to market by rail. The island is destined to monopolize the trade in this end of the valley. The facilities for shipping are excellent. Mr. Carr, while here, purchased 300 head of fine cattle of Mr. Thomas Fowler. They were delivered on Tuesday. Messrs. Tracey & Canfield, among the oldest and most successful stock men of the county, are preparing to gather their main herds into their extensive inclosures. They have been buying land adjacent to their farms, and are engaged in extensive improvements for that long vacant section of country. The land will be almost exclusively devoted to the raising and fattening of stock. It cannot be long before the island will be the rendezvous of the wealthy butchers of the city, looking at the choice cattle, hogs and sheep for that market; and if nothing is gained in prices the farmer will find his market right at home, and sales easily and cheaply made.

LOS ANGELES.

Hardship.—Editors Press:—We have extremely hard times here this year. Our barley crop is not an average, and worth only 65 cents per hundred in the sack on the field, and almost all our other crops suffer extremely from the ravages of gophers and rabbbits.—Arnold Staub, Anaheim.

Rapid Growth in Los Angeles.—*Herald*: During the last year in east Los Angeles at least 100 houses have been erected, costing from $1,000 to $5,000, and at least $20,000 have been expended in laying down water pipes and setting out trees. Within another twelve months it is a positive certainty that about the machine shops a thriving community will spring up, and around this center there will be a prosperous development in manufactures as well as agriculture. The outlook for Los Angeles is brighter than ever, and there can be no doubt as to the prosperous future of our county.

Broom Corn.—*Express*, June 3: Mr. J. P. Woodward has erected a new broom factory on the ashes of the old establishment of Clark & Woodward. The greatest source of trouble at the start of the old factory was the difficulty of getting broom corn here. A small quantity had been raised, but it was not of the best quality. But time improved this, and now as good broom corn is raised here as at any point in the State. This year Mr. Woodward will receive, from parties who have planted for him under contract, a great abundance of excellent broom corn. Mr. O. Parsons, of Los Nietos district, has planted 12 acres, and Mr. Wm. R. Rowland, from 5 to 8 acres. Others in various parts of the county have also planted broom corn, so that he will have an ample supply of the best kind of material for his factory. Mr. Woodward pays $80 per ton for the best broom corn, and the average yield is from 1,000 to 1,600 pounds per acre. This would give to the grower a cash yield of about $64 per acre. But there is a still greater return than this to growers, for the seed of the broom corn, which is carded out on the ground, will pay, in the shape of feed, all the expense of raising the crop. Mr. Woodward yesterday showed us some samples of corn raised at the Puente which was as fine and as long and straight as the best broom used in the San Francisco market.

Artesian Irrigation on Mesa Lands.—A flow of artesian water was struck on Berry's place, on the highest part of the mesa land, about six miles from Santa Ana, on what was formerly a portion of Gabe Allen's place. A stream flowing five inches over the top of a seven-inch pipe has been secured. This is considered a very valuable development in that neighborhood, and shows that the mesa lands may yet be irrigated from artesian wells.

MARIN.

Cheese Factory Suspended.—Petaluma *Argus*, June 9: Payne's cheese factory at Tomales has suspended operations. Parties at San Francisco to whom the proprietor was indebted closed it up. The liabilities are said to be between $6,000 and $8,000, a large portion of which is due for milk purchased from dairymen in the vicinity of Tomales.

MENDOCINO.

Bounty for Wild Animals. — *Dispatch*, June 3d: During the recent session of the Legislature, Mr. Covington, the representative from Mendocino county, introduced a bill to encourage the destruction of certain wild animals in the county of Mendocino, and provide for the bounty for the same. At the request of Assemblyman Clark, of Humboldt, the bill, with certain exceptions, was made applicable to that county. The first section provides that any person who shall kill or destroy, or caused to be killed or destroyed by any person in his or their employ, within this county, a panther or California lion, shall be entitled to the sum of ten dollars; a grizzly bear the sum of ten dollars; a black or cinnamon bear, the sum of five dollars; a wild cat or catamount, the sum of three dollars; and upon the presentation of a scalp or scalps, of any of the above named animals to any Justice of the Peace of, and within the county, and by oath or affirmation or otherwise, prove to the satisfaction of said Justice that the animals from which said scalp or scalps presented were taken, were killed or destroyed in this county, and after the passage of this act, the Justice shall then at once count and destroy said scalps so presented, and shall issue a certificate in the form prescribed. The second section provides that on the presentation by the lawful holder of any one or more of said certificates to the Board of Supervisors, the Board shall consider and allow the same in like manner as other claims against the county are allowed, and the same shall be paid out of the general fund. Section three provides that the said scalps shall be taken with both ears attached, and if not so taken no bounty shall be allowed or paid. Section four provides that the party receiving such certificate shall pay therefor to the Justice issuing the same a fee of 50 cents. The act took effect from the date of its approval.

MERCED.

Merced Falls Woolen Mill.—*Valley Argus*, June 3: The rebuilding of the Merced Falls woolen mill is progressing as fast as circumstances will permit. We are informed that it is the intention of the company to have the building completed and the machinery in place ready for operation in time for the fall clip of wool. The manufacture of woolen goods in this county is destined to become a very important interest, and should be fostered by all public spirited citizens. Wool is now very low and of extremely dull sale in the Eastern cities, and a home market thus afforded for a portion of the wool produced in our county will be a great convenience to the people. Their wool can be exchanged for goods, or sold on short time, to better advantage than it can be disposed of through commission merchants below.

The Effect of the Weather.—*Express*: The past few days and nights of cool weather have been of untold benefit to the grain growing, and therefore to the whole valley. The rapid ripening of the grain has been retarded, and consequently more time and opportunity allowed for the little inhabitants of each mash to grow fat, and by their swelling swell their neighbors out also. We have heard an estimate made by a cool headed old rancher who claimed that the aggregate of the county's crop had been increased in consequence fully one-third more than it would have been had the weather remained so oppressively warm.

MONTEREY.

The Salinas Grain Yield.— *Democrat*, June 10: There are this year seeded to wheat and barley in the new farming district over 8,000 acres, of which much the larger proportion is in wheat. The yield of both will be large in quantity and in respect of quality among the best grown in the valley. We estimate 2,000 acres in barley, at 40 centals the acre, or 4,000 tons in the aggregate; of wheat, 6,000 acres, at 15 centals, or in tons, 4,500. Adding these last figures to the estimated yield of the country on this side of the Salinas and we have 134,750 tons of grain as the result of the present year's harvest in the country indicated and for which an outlet must be found.

Irrigation.—On the Arroyo Seco and Soledad ranchos there are now 2,300 acres of wheat about ready to harvest and expected to yield 15 to 20 centals the acre. The grain looks finely, the berries being full and plump, with bright and thin skins. There has been no crop taken from the ground since the times of the padres, when the Soledad wheat was reputed the best in the Territory. The enterprising proprietor, Mr. Pujol, has a project for irrigating a large surface in that quarter, having had a careful survey made of the Arroyo Seco creek with such view. The engineer's estimates are very reasonable, considering the results, which are perfectly certain, and it is only a question of time as to when the scheme will be carried into execution. In the near future, probably, there will be the matter of 20,000 acres about "Arroyo Seco," bathed by the waters of that stream and placed in condition to yield bountifully of diversified crops.

NAPA.

Mulberry Raising.—St. Helena *Star*, June 2: Mr. E. M. York, who has the handsome nursery at Lodi station, keeps a large patch of mulberries, say half an acre, for his chickens to run in. It gives them both shade and food, as the trees grow rapidly and bear full, and the suggestion may be a good one for other farmers. The mulberries, though only two and three years old, are about 10 feet high and are no trouble to raise.

SAN DIEGO.

The Honey Yield.— *World*, June 3: Mr. H. S. Donohoe, of Lawson valley, reports his part of the county doing tolerably well in the honey business. He noticed some disposition of his bees to play off some time since, but said they were now working well. In the valley, it does not seem that the season has been so unpropitious as reported to the northward; the usual fogs have prevailed, and the dampness from them equal to keep up a sufficient moisture to bring on and mature the feed. Mr. D. said the white sage was just beginning to bloom there, showing the differences we have to encounter in location. Mr. D.'s apiary now amounts to 133 hives. Mr. Cox, next to him, with a large number of colonies, Mr. D. told us was doing about as well as his own. At the Lone Star or Kimball, the report was favorable. The Los Angeles *Herald* says: We have just seen a letter from J. H. Harbison, of San Diego, to a friend in Los Angeles, which states that the honey crop there will be much shorter than was at first anticipated, owing to the cool weather, which has dried up the nectar in the flowers so that but little honey is obtained from them. So far as we have been able to learn from the apiarians in Los Angeles county the flowers continue to yield honey in abundance, with fair prospects ahead.

SAN JOAQUIN.

Antioch as a Shipping Point.—*Ledger*, June 10: There will be grain raised in this section sufficient to load several vessels for Europe. It has been demonstrated by actual experiment that the averaged sized vessels engaged in the wheat carrying trade can receive full cargoes at our wharves, and it was also shown by Capt. Plummer, who loaded the *El Dorado* here in 1874, that at least $1 per ton was saved by loading here in preference to Oakland or San Francisco. This money should be saved to our farmers, and we trust an effort will be made by our leading merchants and those who may be engaged in purchasing wheat to induce San Francisco dealers to send vessels to Antioch to receive the grain from this section. Vallejo loads more ships for Liverpool annually than Oakland, and with a railroad or transportation canal through the San Joaquin valley, Antioch would load as many as Vallejo. In the meantime, let us make an effort to freight a few vessels this season for foreign ports. It can be done if the people will it.

SANTA BARBARA.

Laguna Ranch.—Guadalupe *Telegraph*, June 10: The supreme court has decided that the title of the Laguna ranch belongs to Mr. Leroy, and that the parties who bought land of Mr. Murphey have no title. The parties most seriously injured by this blow are: T. B. Jamison, land and improvements; D. Coiner, land and improvements; J. K. Triplett, land and improvements; F. Vidal and son, land and improvements; J. H. Rice, 500 acres land. The following renters lose as follows: W. L. Stephens, 100 acres of grain; O. Moore, 6 acres; Moore & Guthrie, 100: J. R. Norris, 150; C. Drumm, 375; B. J. Martin, 150; V. Crawford, 150. Others may be affected but we have not learned their names. A compromise has been arranged between Mr. Leroy and the settlers, by which the latter retain possession until October 1st, 1876, thereby saving their crops. The terms of the compromise were as follows: Mr. Leroy to receive $5,500, payable December 1st, 1876, and the settlers to pay $1,000 as costs of court. The above compromise is undoubtedly the most favorable for all parties that could have been made under the circumstances, and, we believe, our friends Jamison, Rice, Triplett and Coiner will handsomely clear themselves this fall, as their crops cannot be excelled. The final result will probably be the partition of the entire Laguna ranch among its owners.

Carpinteria.—Editors Press:—In the beautiful valley of Carpinteria, about the last of the Government titles are being obtained by settlers for their homes. Everything in the way of vegetation looks splendid. Mr. H. J. Rhodes, formerly of Napa, a new subscriber to the Press, has a beautiful place above all frost, with an ever flowing stream of mountain water for irrigation purposes, and with a view of the ocean, mountains, and surrounding country that would charm the soul of an artist. His soil is of the richest kind, and he is testing many different things in it. His specialty is strawberries, of which he has many new varieties. From a very small patch he has sold several hundred dollars' worth in a short time. His Cape Cod cranberry plants are full of bloom and fruit, and throwing out endless runners that will give him a large number of new plants. It is naturally moist land, but not irrigated. Sweet potatoes, tomatoes, egg plants, etc., are to be seen that survive all winter or volunteer. He has just obtained some Florida banana plants from Los Angeles. They look well.—W.

SONOMA.

Experience with Alfalfa.—*Democrat*, June 10: Hon. W. S. M. Wright has a field of 100 acres of alfalfa, planted two years ago. It was seeded in April, 1874. He mowed it twice the first year and the same fall pastured a large number of lambs in the field. Last spring, in April, he fenced off 35 acres and put 3,000 head of sheep on it to eat out some rape which had grown up with the alfalfa. This band of 3,000 sheep eat down the pasture in about a month. They were taken off and put back in four weeks, kept there three weeks longer and were again removed, the alfalfa seeded in October and another band of lambs turned on it and pastured until the fall rains, when they were removed. The crop is now being cut for hay and will average over two tons to the acre. We have a handful as a sample, which measures six feet six inches in length. Mr. Wright, who is careful in his statements, estimates the field when well set will keep 20 sheep to the acre. He will feed the hay this winter to the sheep to be fattened and sold in the city markets.

YOLO.

No Blast on Wheat.—The Yolo *Mail* was misinformed concerning the blast on Mr. Tadlock's wheat, in the item we printed last week. The wheat was exceptionally fine.

Montana.

Conditions in Agriculture.—Editors Press: Not having seen anything in your valuable paper from Montana for some time, I concluded to give you an item or two. The prospects of the farmers are anything but encouraging. The grasshoppers have hatched out in countless millions, and threaten the destruction of the entire crop, the upper portion of Bitter Root valley being the only portion of the Territory (so far as I have heard from) free from the pests. Our grain is little more than up, while we see by your paper that the grain in California is ready for the reaper. Were it not for grasshoppers we would have good crops, as we are having abundant rains, which only tend to keep the grain tender for the voracious pests. Many farmers are dissatisfied with their present situation in this country, and would quickly leave, could they dispose of their property here for anything at all, they feeling unable to go away and leave the proceeds of years of toil for nothing. Since the failure of Jay Cooke & Co. and the discontinuance of constructing the Northern Pacific railroad, we find but little inducement to remain in this remote Territory, with its long winters and few luxuries. Yet this country has some few advantages, of which we may speak on some future occasion.—Thos Newman, Missoula, M. T.

Oregon.

New Trade in Oregon Wheat.—*Oregonian*, May 27: The best judges who have examined the wheat and oats raised in Oregon uniformly pronounce them of the very finest quality to be obtained in any known country in the world, and all felt sure that the specimens sent to the Centennial exposition would attract much attention. This is already known to be true, as the following extract from a letter to T. J. Matlock, of this city, from a large milling firm in Craigsville, Orange county, New York, will show. The letter is dated May 6th, and says:

> Mr. A. J. Dufur, Centennial Commissioner, refers me to you for quotations. Please mail me samples of the very finest white wheat and largest grained oats in your market, and quote the prices for the same; also inform me the cost per car load for freight for the same, to come here by the Erie railroad; also the cost by sail vessel to New York; the grain to be delivered in bags, or cars in bulk, free of charges for cartage or bags to us. We will need about 1,000 bushels per month of each, if the prices and freight do not make it come too high at our mills.

The above shows that our Oregon grain is not suffering by comparison with that raised in New York, or in the United States in fact, and that with freights at a sufficiently low figure, we would be able to furnish the denizens of the American metropolis with a finer article of breadstuffs than they are accustomed to. Mr. Matlock will take all the necessary steps to ascertain the practicability of opening a new trade for this State in the direction named. We hope it will lead to advantageous results.

Peter's Ride to the Wedding.

Peter would ride to the wedding—he would,
So he mounted his ass—and his wife
She was to ride behind, if she could,
For," says Peter, "the woman, she should
Follow, not lead, through life."

"He's mighty convenient, the ass, my dear,
And proper, and safe—and now
You hold by the tail, while I hold by the ear,
And we'll ride to the kirk in time, never fear,
If the wind and the weather allow."

The wind and the weather were not to be blamed,
But the ass had adopted the whim,
That two at a time was a load never framed
For the back of one ass, and he seemed quite ashamed
That two should stick fast upon him.

"Come, Dobbin," says Peter, "I'm thinking we'll trot,"
"I'm thinking we won't," says the ass
In language of conduct, and stuck to the spot
As if he had sworn he would sooner be shot
Than lift up a toe from the grass.

Says Peter, says he, "I'll whip him a little—"
"Try it, my dear," says she.
But he might just as well have whipped a brass kettle,
The ass was made of such obstinate mettle
That never a step moved he.

"I'll prick him, my dear, with a needle," said she,
"I'm thinking he'll alter his mind."
The ass felt the needle and up went his heels;
"I'm thinking," says Peter, "he's beginning to feel
Some notion of moving—behind."

"Now lend me the needle, and I'll prick his ear,
And set t'other end too agoing."
The ass felt the needle and upwards he reared;
But kicking and rearing was all, it appeared,
He'd any intention of doing.

Says Peter, says he, "we get on rather slow;
While one end is up, t'other sticks to the ground;
But I'm thinking a method to move him I know,
Let's prick head and tail both together, and so
Give the creature a start all around."

So said, so done; all hands were at work,
And the ass he did alter his mind—
For he started away with so sudden a jerk
That in less than a trice he arrived at the kirk,
But he left all his lading behind.

Overland Chat.

[For the PRESS by MARY MOUNTAIN.—No. I.]

Having passed "Cape Horn," clinging to the outside rail at the rear end of a long train, it might seem easy enough to give a good word-picture of the scene and sensation, but I find it quite impossible.

First come wonder and delight over the grandeur of Nature's work, followed by equal wonder and admiration for the marvelous result of human skill.

The points of interest connected with this famous place have been already so well described for RURAL readers there is no need of repetition; but the hight and steepness of these tremendous bluffs may be realized when it is known that in building the road-bed around the face of the mountain, the men who made the first standing-ground were held by ropes until a foothold could be dug; and to one standing below by the river they looked more like clinging insects than like full-grown men.

I cannot tell how much sympathy a man must give while impressing upon memory such wonderful scenes, but from my own close contact with this fierce ruggedness, I came back to my seat quite faint and giddy, and with no great force of adjectives to fall back upon. Yet this was not the beginning of my

Centennial Sight-Seeing,

For on Thursday, May 25th, I enjoyed a notable ride to Berkeley and all around Oakland in company of Mr. Dewey and his family. RURAL readers will understand that I mean *our* Mr. Dewey, and if I could faithfully reproduce my feast of good things while in his kindly care, they would join me in gratitude for that days' pleasure.

First to Berkeley,

Where the grounds are far more beautiful and forward in cultivation than I had expected.

And following that surprise was a still greater one when I learned that the work of keeping those grounds and gathering the crop of sweet hay is done by hired laborers and not by the students.

And this disappointment is a severe one, for in spite of all I had heard of the snubbing agriculture has received in what should be "the house of its friends," I had cherished the vain delusion that when I should go there with my girl and boy, the former could follow the desire of her heart in practical gardening and floriculture, while the latter would find healthful exercise and respect for manly labor among a sturdy lot of students, with muscles finely trained to the stroke of spade and hoe, pitch-fork and pruning shears.

If manual labor is an excellent thing, and respect for labor most essential in the training of our young people, why is it so generally left out from these important student-years?

I have heard that printing, telegraphing and other useful things are taught, but for jolly out door exercise the light farm work and gardening might be, to many students, as attractive as base ball, if it were only as fashionable.

Inside the handsome building whose corner-stone was neatly laid with

Praise of Agriculture,

We found a department of that name in a rather damp basement, and I can give it the faint praise of being to some extent a "seedy department," and with no sign that it deserves any other description. The cheerful upper rooms are very interesting; library and museum respectably filled, and the collection of ores, minerals, etc., the most complete and attractive I have ever seen.

As a school of letters we may all be proud of it; but as a school for agriculture and the training we call practical, it seems likely to be a chronic disappointment.

Hardly any other school in the world has a finer location or more beautiful outlook in all directions.

Driving into the charming grounds of the late Ross Browne, we had the pleasure of a few kindly words and an armful of flowers from the mistress of that elegant home, now so saddened by the death of its gifted master. Because of our admiration of his writings the name of Ross Browne has been a household word with us; and to visit this home of his own planning, so unique and perfect in its style of beauty, was a pleasure never to be forgotten.

Returning through the fair country and city,

The Oakland of Early Times,

With its one wide, sandy street was fresh in memory, and no one could ask for greater wonders of improvement than are now found in the excellent streets, handsome dwellings, churches, schools and every desirable evidence of wealth and refinement. In all my pilgrimage it is not probable I shall see another city so young and yet so charming, so mature in all that makes town life attractive.

Recalling the pleasant memories of my week in San Francisco and my day in Oakland, puts me in excellent trim for the journey, and so warms my heart with gratitude for the generous hospitality of friends, that right here among the

Great Sierra Snow-Banks

I find no chill of any sort—no regrets for past or present, although we are not in a palace car. Expecting to join the advance guard of Centennial-bound teachers, we find ourselves in very good company, and although not many of us would be able to answer the quarterly allowance of

Educational Conundrums

That are supposed to shape, equip and nourish the mind of the average teacher, we do not allow this to make us unhappy. Yet the teaching fraternity is well represented by our right hand neighbor, the little school-marm from Vallejo, and the German professor from San Francisco high school, who, with his three bright, motherless children is also our next door neighbor.

We are very chatty and comfortable, teaching each other the latest thing in bed-making every night; and having a strong combination of German patience, Yankee ingenuity and woman's wit, we are able to make up and clear away sleeping bunks with the ease and skill of old veterans. We are not only early to bed and early to rise, but our habits of attention to the lunch baskets are devout and regular as a church-going bell. But we need no bell. The rattle of dishes, the dainty flavors of coffee, tea and chocolate signal an attack all along the line; and you will see grim faces relax, and the grumpiest pilgrim become genial enough to ask for a few lumps of sugar or a pinch of salt.

Our seats have become like homes, and neighborly kindness the most handy thing you can imagine; for we ask and give and take with a generosity that promises to last as long as the contents of the lunch baskets.

Our car is lively and sometimes noisy with a round dozen of children, who surge back and forth in romping plays, sometimes amusing, often tiresome; and the sleepy growlers declare that "children are a nuisance in a car—why don't their mothers make them behave?"

The car is well ventilated, leather cushioned seats and backs, no carpets, and we do our own sweeping, everybody ready to help in the general house-cleaning. If a person starts with too little lunch or bedding, there is no difficulty in buying whatever is needed at way stations, the food being generally good and at reasonable prices. Meals, 50 cents at every station. Milk, bread, and often pies and cakes are brought into the car for sale. We had been told that a great objection to the emigrant train is its slowness and frequent stopping; but we do not object to that, as it gives a chance for rest and we can see much more of the country and its people.

Each Eastward emigrant train reserves its best car for women, children and the men who accompany them; and other men are not allowed in that special car. This, at least, is the present management on the Central Pacific.

A first-class ticket from San Francisco to New York or Philadelphia is $138. On the emigrant train to same points it is $65 (greenbacks in either case), and nearly twice the time consumed in making the trip. Our own tickets are only for Omaha, at which place we will take the first-class excursion tickets for the round trip. I have been thus definite for the benefit of those who may be in doubt, as we were, of the propriety of coming this way. If a person takes a third-class ticket from choice or necessity, he will find plenty of pleasant and respectable people who are doing the same thing.

Saving Matches.

"This is the second match I have picked up in this house to-day," said Paul Yardley, with considerable severity in his tone. "It is a very bad sign, indeed, Matilda, with regard to our prosperity. If one is not saving in these small matters, no matter how large the income is, one can never get on in life. I have often spoken of having one of those mantle vases filled with lamp-lighters, so we need not use so many matches, but for some reason I never get these things attended to. I am sorry to say it, Matilda, but we are running behind in our affairs, and I must be allowed to repeat a remark I heard a man make yesterday: 'A man must ask his wife's leave to thrive.'"

So saying, Paul lighted his cigar with the air of a man who had discharged a weighty duty. He felt that he had discharged a fitting rebuke to his wife's wastefulness, and he walked away to his shop completely satisfied with himself.

Matilda went about her accustomed duties with a slightly depressed air, as Aunt Sylvia could not help observing.

Aunt Sylvia was making a visit at the house of her nephew, and could not help taking mental notes of much that went on around her.

She was Paul's mother's sister, and had tried to do her duty by the boy when he was growing up, but she felt that somehow she had missed a point or two. She quietly resolved that she would do her best to supplement former deficiencies before she went home.

She would open Paul's eyes a little, so that he might take a juster view of himself and his wife, if it were in her power to do it.

Not being of his "wife's relations," it was easier for her to speak out.

Besides, she had a few thousand dollars to leave to somebody, and that gave weight to her opinions among all her nephews and nieces, not to speak of their parents.

So it happened on that rainy evening, as Matilda was hushing the baby to sleep in the nursery, that Aunt Sylvia took occasion to have a little talk with Paul.

"So business does not go exactly to your mind these times, Paul," she remarked.

"Why no, Auntie, not quite. We ought to make another payment on our house next month of fifty dollars, but I can't raise five dollars."

"What is the trouble?"

Business is dull and it costs a great deal to keep house. I am not sure but boarding would be cheaper. I don't think Matilda understands saving quite as well as she ought. She does not mean to be wasteful, of course, but little leaks sink a ship."

"Just like every man since Adam's time," said Aunt Sylvia a little tartly. "Always ready to throw the blame on a woman. Now I have been in your house above a week, and I am of the opinion that Matilda is a much more saving and prudent wife than you deserve."

"You always were hard on me, Aunt Sylvia," said Paul in an injured tone.

"None too hard for your good, Paul. If Matilda was a little more self-asserting and less patient with you it would be to your advantage. I blame her for putting up with what you said this morning about that match. She should have spoken her mind to you plainly. Paul, how many matches do you suppose one cigar would buy? Hundreds. Thus every time you smoke a cigar you waste, in reality, hundreds of matches. If Matilda struck off a whole box to light her fire it would not begin to compare with your wastefulness. I know you do not smoke less than three cigars a day. That is enough to keep your wife in matches for weeks, if not for months.

"Now paper-lighters," she continued, "are all very well when you have children to make them. But a busy housekeeper's time is too valuable for such work. You remember the old proverb about saving at the spigot. You would have your wife continually on the look-out about these infinitesimal economies, while you squander dollars on trifles that you could better do without.

"The loss of a day to your business is another great waste. How many weeks pass without a holiday of some sort? Last week it was a journey by railroad, which cost you $3 fare, and I don't know how much more for dinner. This week you know you hired a horse to go with a friend into the country to see his new place. When has Matilda taken even half a day's holiday?"

"But a woman's place is at home, Auntie," said Paul, rather vexed at being cornered.

"And a man's place is at his business. It cannot go on all the same when he is away from it—that is, if he has any ability worth speaking of. Come, Paul, you must learn to be more reasonable, or I shall have to be ashamed of my share in your bringing up. Drop this habit of looking out for motes in your wife's eyes, and consider the beam in your own eye.

"So distinctly understand, my boy," said Aunt Sylvia, with her decided shake of the head which Paul knew so well, "not a penny of mine ever goes for cigar money or livery stable debts, except it is to take wife and child out for a drive. I am quite willing to have you call on me for that supply once a week. I expressly stipulate that the customary check, which I send on Christmas, is to be spent to the last penny on Matilda herself, and I am to have the privilege of looking over her account book, with the items noted, when I come again.

"She will not have the slightest objections, and it will serve as a check to your teasing it all away from her. You see I don't forget how you used to tease your old auntie in former years, and I must try to make amends to your wife for spoiling her so badly."

The sound of a weary little foot on the stair put a stop to further conversation, and presently Matilda entered, and with all haste brought down the sewing-basket in an absent way, and forthwith was immersed in its contents.

Her fingers were nimble in spite of the day's hard work, and mended garments were laid out, neatly folded on the table, one after another, in a way that astonished Paul's newly opened eyes.

To think that she must work on and on for hours after his work was over, and he had never thought about it before! And he had been calling her wasteful, and all that, in return!

"I am an awful scamp, Auntie," he said, suddenly, as he arose and picked up the basket and set it on the shelf, while Matilda followed him with bewildered eyes.

Auntie nodded approvingly, and Matilda inquired if Paul had gone crazy.

"No, dear; I am just coming to my right mind. No more work after this time of night, or I shall feel compelled to lose your thimble."

"I'm afraid your toes will be cold this winter if I don't—not to speak of poor little Frankie's."

"The fact is, dear, I am going to turn over a new leaf. I shall smoke fewer cigars, and with what I save buy new socks for baby and all of us. You shall not wear your life out mending these old things. You must work less, and take more recreation. Auntie here has been giving me such a dressing down as I havn't had since I was 10 years old. Come, play me an old tune, dear, and show that you have forgiven me for being such an old bear."

Wise old Auntie slipped away to write a letter she wished to mail in the morning, and gave the two their bright sitting-room all to themselves. It was the first of many bright evenings, and the two had never reason to regret the fortnight's visit from good Aunt Sylvia. —*Agriculturist.*

The Power of Kindness.

A Cadiz letter says: "Notice had been posted in all the public places that on a certain day the bull called 'El Moro' would be introduced into the arena, and that, when he should have been goaded to the uttermost fury, a young girl would appear and reduce the animal to quiet subjection. The people of Cadiz had heard of 'El Moro' as the most magnificent bull ever brought into the city, and it soon became known that the girl thus advertised was a peasant girl of Espara, who had petted the bull, and fed it and cared for it during the years of its growth. On the appointed day the vast amphitheater was filled with an anxious, eager crowd. Three bulls had been killed and dragged away, and then the flourish of trumpets announced the coming of the hero of the day. With a deep, terrific roar, 'El Moro' entered upon the scene. He was truly magnificent—a bovine monarch—black and glossy, with eyes of fire, dilating nostrils and wicked looking horns.

"The picadores attacked him warily, hurled their banderillos (small, dart-like javelines, ornamented with ribbons, and intended to jade and infurate). The bull had killed three horses off-hand, and had received eight banderillos in his neck and shoulders, when, upon a given signal, the picadores and matadores suddenly withdrew, leaving the infurated beast alone in his wild paroxysms of wrath. Presently a soft, musical note, like the piping of a lark, was heard, and directly afterwards a girl not more than 15 years of age, with the tasteful garb of an Andalusian peasant, and with a pretty face, sprang lightly into the arena, approaching the bull fearlessly, at the same time calling his name, 'Moro! Moro! Ya voy!' At the first sound of the sweet voice the animal ceased his fury, and turned toward the place whence it came, and when he saw the girl he plainly manifested pleasure. She came to his head and put forth her hand, which he licked with his tongue. Then she sang a low, sweet song, at the same time caressing the animal by patting him on the forehead, and, while she sang, the suffering monarch kneeled at her feet. Then she stooped and gently removed the cruel banderillos, after which, with her arms around 'El Moro's' neck, she led him toward the gate of the torril."

HARMONY IN THE MARRIED STATE.—Says the illustrious Thomas Jefferson: Harmony in the married state is the first thing to be aimed at. Nothing can preserve affection uninterrupted but a firm resolution never to differ in will, and a determination of each to render the love of the other of more value than any earthly object whatever on which a wish can be fixed. How light, in fact, is the sacrifice of any other wish when weighed against the affections of one with whom we are to pass our whole life? Opposition in a single instance will hardly of itself produce alienation; that only takes place when all the little oppositions are put, as it were, in a pouch, which, while it is filling the alienation is insensibly going on, and when full it is complete. It would puzzle either to say why, because no one difference of opinion has been marked enough to produce a serious effect by itself. The affections are wearied out by the constant stream of little obstacles.

Moving Incidents.

A gentleman residing on Aberdeen street was, until Friday last, inclined to favor female suffrage. His wife had prudently delayed moving till after the 1st, so as to take advantage of the fall of house rents. The house to which they moved had a tremendously steep flight of stairs, and an oil-clothed hall. The wife had the stairs scrubbed down, and left the soap on the top step. Her husband was up stairs, with a basket full of clothes pins in one hand and a clock under the other arm, when his wife, who was down stairs, saw a mouse, and shaking her skirts madly, bounded up on the table and let off a series of shrill shrieks beginning on high ZZZ above the clef. Her husband, thinking the house on fire at the very least, started to run to her rescue, and, stepping on the piece of soap that she had so thoughtfully left on the stairs, sat down vehemently at the top of the flight, and slid down with the speed of thought. Fire flew from his false teeth as he hit on the edge of each step, volleys of clothes-pins were discharged into the air and fell rattling and rebounding on the oil cloth, and the clock shed its inwards over the nniverse. The injnred husband had little time for reflection when he reached the glare oil cloth of the hall and shot across it with scarcely diminished velocity, literally making the oil cloth and the seat of his pantaloons smoke with friction, and finally bringing up against the door with a violence that threatened to burst the side out of the house. The fearful concussion startled his wife, who turned a back-somersault from the table into a tub of soap-suds, in which she was so tightly wedged that she had to throw a handspring and canter on all-fours like a turtle with a tub on her back and cataracts of suds inundating her. Meanwhile, the hired woman fell off the step-ladder with a crash like a pile driver, and jarred down most of the plaster cornice. When the man's wife had sloughed her tub, she sauntered calmly into the hall and remarked, "Well, men are the clumsiest—and the hall had just been washed, too." Her husband did not say much, but he thought a good deal; and now, he says, just let Susan B. Anthony come and lecture here again, and if no other man has the courage to hiss, he will, so help him Jasper Packlemerton. —*Chicago Tribune.*

Origin of "Home, Sweet Home."—The following is the origin of "Home, Sweet Home," as Mr. Reed says the author related it to him, in Tunis. Mr. Payne had written several pieces for the stage that had met with considerable favor, and had been sent for to go to Paris to look after the introduction of one of them in one of the theaters of that city. It was the afternoon before Christmas, and, although in winter, the day was bright and pleasant. After strolling about for a while, he seated himself in the garden of the Tuilleries, and became a quiet observer of the gayety of that brilliant promenade. While sitting there he thought of the pleasure his acquaintances told him they expected to have the next day, and reflected that, although in the midst of all this gay throng, he was without a home and friends, and was really the most lonely person in the world. All through the day he had been humming to himself an air which pleased him very much, that he had heard in the theater the previous evening, when he had listened to an opera by Donizetti, called "Anne Boleyn," in which the air of "Home, Sweet Home" occurs. After a little he began to arrange these reflections into verse, adapting it to this air, and, before leaving his seat, a song that has since touched the tenderest chord of millions of hearts had its origin. He then went to his room and wrote out the song, and on showing it to some of his acquaintances, they advised him to have it published. He did so, and the next time he went to London it was sung for the first time in public at Covent Garden theater, and immediately became very popular.—*Independent.*

Interesting Spider Story.—Quite a crowd gathered yesterday at a carpenter shop in this city, where a scene was transpiring that filled the spectators with astonishment. Near a bench in the shop hung a medium-sized mouse, head downward, and around its body was coiled a single thread of a spider's web, which reached to a corner of the bench above and had its fastening there. On the mouse's tail quietly sat the spider, which seemed to be manipulating the thread and working it as with a pulley. When caught the mouse was on the ground, and after five or six hours' work the spider managed to hoist it about an inch, and there it hung. The statement concerning this singular affair is that the mouse was accustomed, when on a predatory excursion, to emerge from a hole under the bench and pass to an inner room. The spider laid a trap in its path, it is conjectured, and yesterday morning, as the mouse was making its daily rounds, it was caught and securely held in the net set for it, the spider taking up position on its tail. Though the monse hung suspended, a dead weight, the thread did not give way, and there it hung, helpless, between earth and heaven. At night the carpenter closed up his shop and dropped the curtain on the show, but the spider was still at work and had completed about an inch in the elevation. —*N. O. Picayune.*

Young Folks' Column.

Little Mexican Divers at Mazatlan.

[Written for the Press.]

The U. S. man-of-war *Saranac*, at that time flagship of the Pacific coast squadron, left San Francisco in the afternoon of March 11th, 1870. After a delightful trip of 10 days, dnring two of which we lay anchored in Magdalena bay, we entered the harbor of Mazatlan, Mexico, on March 21st. As we approached the town, a small fleet of canoes, or "dug-outs" as they are sometimes called, laden with oranges, bananas, mangoes, cocoanuts, aud other Mexican fruits, and each paddled by a young Mexican woman, shot out from shore to greet us. Before we had placed out our gangway planks, and, indeed, before we had even anchored, these itinerant venders of Mexican fruits had deftly fastened their canoes to the side of Uncle Sam's *Saranac*, and, with a liberal supply of eatables, and drinkables, too, for they had milk, established themselves on the deck of our ship, where they rapidly disposed of their stock.

Having next day obtained a day's leave of absence, we were taken to shore on one of the numerous "cutters" belonging to the ship. Landing on the dilapidated old wharf, which extends from the Mazatlan custom house a few hundred yards out into the bay, with no definite idea as to where we should go, but fully convinced that, as it was early in the forenoon of a sweltering hot day, we could here while away a few honrs pleasantly by watching a score or more of boys, ranging in age from six to 16 years, who were disporting themselves in the water, diving from the bridge, swimming races and having a "good time" generally.

Each one of these boys was entirely nude, but their brawny brown skin had long ago become accustomed to the cold, and, in consequence, all seemed as comfortably warm as many of our little ones feel when tucked snugly in bed. Those who dived off from the wharf (which was at least 20 feet above the water) attracted considerable attention from the bystanders. One intrepid fellow, of about 15 or 16, who performed many difficult feats, especially was an object of much interest, and his turning two somersaults in the air before striking the water elicited repeated shouts of admiration. We were induced by several of the boys to throw into the water a dime, after which a simultaneous dive hy eight or ten youngsters was made, one of whom had caught it before it had reached the bottom. A knot of spectators then proposed that all the boys who were willing should stand on the edge of the pier and dive after a half dollar to be thrown in. A grand leap toward the rings on the water made by the coin, a great splash, a mighty rosr and all was confusion. When the young divers got entangled, one little fellow, while treading water or floating on his back, began to toss the coin in the air, playing with it as with a ball.

These boys seemed to be as much at home in the water as an ordinary person is on land. Fear never as much as suggested itself to their minds, and any new, untried feat was quickly mastered by them. Two would sometimes wrestle to throw one another overboard, in which case the loser got a good splash and the winner a few dimes or *reals*, which the bystanders were ever willing and ready to stake as a prize.

By their exhibitions of their skill in the water these boys manage to earn considerable money, especially at times when the steamers sailing along the coast land their passengers at Mazatlan. To any one, on first witnessing these skillful divers and swimmers, it is always a pleasing sight, and therefore many are willing to throw in a dime or a half dollar for the fun of seeing them dive after it and bring it out again.

As we were about to leave we were told that at certain times of the day, when the low tides and the breakers render it impossible for even the smaller boats to approach nearer than within a bundred feet of the end of the wharf, as at Panama, where we afterwards landed, these boys will go out and take the persons occupying the boat, one by one, on their backs to the shore, as compensation for which they exact the moderate fee of *uno real*.

For several hours we had watched with eager interest the many difficult eats performed by these daring young "water mice," when the old town bell of Mazatlan tolled the hour of midday. We were then reminded that we needed some refreshments, and that, to thoroughly "do" the adobe, one-story-honsed and zig-zag-streeted town of Mazatlan, and see everything of interest there was in it, we would have to go about it immediately, for the time left was short enough for the purpose.

The *Saranac* remained in Mazatlan a day or two longer, when, on the 23d, we left for Acapulco, Panama and South American ports. What things of interest we saw during the rest of our trip we may tell you some other time.

Every boy of taste tries to ornament his own room, whether it be a pretty chamber or a rude attic. None so poor but he can get a few cheap prints and chromos, nor so busy but he can saw ont brackets and frames, and press leaves and ferns for this purpose.

Good Health.

Miasms.

Typhoid fevers are the result of the blood becoming poisoned by miasms, and are much more difficult to cure than to prevent. Farmers may think themselves less exposed to the corrupting influences of miasm than are the dwellers of the city or village, and it is true that the air of the couutry is more pnre than the air of the city, but it is also trne that miasms are often found lurking aronnd the farm-house. Nor are they confined to river bottoms and low lands; we have knowu them to be prevalent in mountain towns. High places are not necessarily destitute of swamps and decaying animal and vegetable matters, and wherever these are found the seeds of disease are generated.

Miasm is such a subtle poison, propagates itself, like yeast, so abundantly, that we desire to call the attention of farmers to the propagating beds to which the farm-houses are particularly exposed, and the first we mentiou is the cellar. There are wont to be stored lots of vegetables for the wants of the family and the stock. It is the wroug place. The barn should have a cellar just as necessarily as the house. Piles of vegetables will heat and corrupt more or less during the winter, and as soon as spring opens they of course begin to decompose, in order to recompose new vegetation. The windows of the cellar should be taken ont, the gangway thrown open, and a good circulation of air kept up in the cellar from this time till late in autumn. Old boards and all decaying timber, as well as old lime and other refuse, shonld be removed, the whitewash brush applied to the walls, and slaked lime or other disinfectants scattered on the floor.

It will greatly aid in promoting a pnre air in the cellar and health in the household if an opening be made from the cellar into the chimney, so that all impurities may find vent np this most convenient channel for ventilation.

Another great generator of miasm in the farm-house, and indeed in all houses, is the sink, which is too often the sink of iniqnity and death. If there is anything that will generate vile odors and seeds of disease it is the fermenting compound of soap-suds, dirt, and effete exhalations from the human body to be found in the wash-tub of the laundry.

What to do with the waste water of the sink and wash-tub is one of the problems of country life which is not fully solved. It is too valuable to be lost, and too unhealthy to be kept near the house. To throw it, as many do, from the kitchen door, and leave it there to contaminate the air, is tempting the grim messenger death to shoot his fatal arrows. If death should ensue, there should nothing be said about the mysterious Providence. The only mystery is that more sickness and death do not result from the malarious atmosphere of the surface cesspool.

Probably the best mode of ridding the premises of miasm from sinks is to conduct the waste water in iron or cement pipes to a cesspool some distance from the house, and keep this pool well filled with some absorbent, such as dry muck, fine charcoal, or loam. The sink itself should be of iron, and furnished with a valve outlet, so that the gases from the pipes cannot return into the house. A wooden sink is apt to become saturated with the odors generated in the pores of the wood. If wood must be used for sinks, use a solution of copperas frequently to keep them wholesome.

All stagnant water, all marshy places, are fruitful sources of masm. Let the marshes be drained and the hollow places be filled up. Set out a row of white pines between the house and barn to ward off or absorb the effluvia; keep the homestead every way neat and the air pure, and the health and comfort of the household will amply compensate for the labor.—*N. Y. Times.*

Sunlight.

There is no time in the year when sunlight is so vivifying as in the spring. Perhaps the skillful scientist who can weigh it and tell with how many million tons it presses upon the earth might explain why the ray is more potent as the days lengthen; but that would not change the fact. Instead of excluding it from our houses lest it fade damask and brussels, draw flies and bring freckles, we should open every door and window and bid it enter. It brings life and health and joy. There is healing in its beams. It drives away disease, dampness, mold, megrims. Instead of doing this, however, our careful housekeepers will close the blinds, draw down the shades, lock the doors, shut out the glorifying ray, and rejoice in the dim and musty coolness and twilight of their unhealthful apartments. It is pleasant and not unwholesome during the glare of the noontide to subdue the light and exclude the air quivering with tides of heat, but in the morning and in the evening we may freely indulge the sun bath, and let it flood all our rooms, and if at its very fiercest and brightest it has full entrance to our sleeping rooms, so much the better for us. Wire netting in doors and windows excludes not flies and mosquitoes only, but all other insects, and those who have once used it will continue to do so. With this as a protection from intrusive winged creatnres one may quite dispense with shades and shutters, and enjoy all the benefits of an open house without any annoyances so frequent in warm weather.—*Tribune.*

Domestic Economy.

Fancy Cookery.

A correspondent who signs herself "Farmer Girl," in writing to the *New England Farmer*, gives some excellent hints on fancy cookery, to wit: Housekeepers who do their own work avoid much inconvenience by always keeping one or two kinds of pastry in the house, made rich enough to keep some time, so that if unexpected company finds them with a small stock of food (as it is apt to do in warm weather) they will not have to cook everything for a meal.

Tart crusts are excellent for this purpose, as they look nice on the table, and are relished by most people better than cake. By the following rule they will remain good many months in a place dry enough to prevent their molding. I think a cellar would be too damp, though I never tried it, having always kept them in a stone jar set in a cool cupboard; unless to keep a great while, it is needless to make them so rich. With one pint of flour use one-half pint of lard, a pinch of salt, and the beaten white of one egg, adding a little water, if any liquid is needed; roll thin and cut in rounds, wetting the edge of each before putting on the rim, which is made from a strip of dough cut one-third or one-half inch wide, set up edgewise and neatly fitted on. Another very pretty way of making them is to take two round pieces of dough, cut three or five holes in them with a thimble, and lay it on the other so they will hold together firmly when baked; when wanted for the table, fill each tiny hole with jelly. This is an easier method than the first, but not as good, if one wishes to fill them to carry to a levee or supper away from home, as they cannot be placed one upon another when filled, like those having high rims around them.

Ginger-snaps are another kind that are excellent to keep. A friend told me she meant never to be without them; she had kept them six months by moving them down cellar when they became dry, and if they grew too moist there, would dry them a little in the oven. Boil two cups of molasses, and when slightly cooled add one cup of lard, pork fat or butter, one large teaspoonful of soda, and some ginger; mix hard as possible, roll thin and cut in rounds. For immediate use they are good enough if one-half cup of water is added to the mixture.

Useful Hints.

To Re-fasten the loose handles of knives and forks, make a cement of common brick dust and rosin melted together.

To preserve flowers in water, mix a little carbonate of soda in the water and it will preserve the flowers a fortnight. Saltpeter is also good.

If brooms are wet in boiling suds once a week, they will become very tough, and will not cut a carpet, last much longer and always sweep like a new broom.

To keep apples fresh a year, use dry sand, dry your barrel, put in a layer of apples and a layer of sand until full, cover tight and keep where they will not freeze.

Yellow stains, commonly called iron mold, are removed from linen by hydrochloric acid or hot solution of oxalic acid. Wash well in warm water afterwards.

Forty-six pounds of meat, three-fourths of a pound of salt, three ounces of black pepper, half an ounce of sage and a tablespoonful of red pepper will make excellent sausages.

A small piece of paper or linen, moistened with the spirits of turpentine and put into a bureau or wardrobe for a single day, two or three times, is said to be a sufficient preservative against moths.

The best way to cook codfish is to strip it of its skin and cut it in pieces about the size of one's hand; place it in water and allow it to simmer on the stove until it becomes tender. It should never be allowed to boil. Boiling hardens and darkens the fish, and deprives it of its flavor.

Cottage Cheese.—This is a farmer's dish, but should and would be eaten and appreciated by all classes if they knew how wholesome and digestible it is. Those who have plenty of milk and make butter, have an abundance of sour or clabbered milk daily, clean and fresh. Skim the cream off for the churn, and set a gallon or two of the milk on the stove in a milk pan, and let it gradually warm till it is lukewarm all through. Stir it occasionally to prevent its hardening at the bottom, and when it is a little warmer than new milk, and the whey begins to show clear around the curd, pour it all into a coarse thin bag, tie close and hang up to strain. Let it hang two or three hours in a cool, shady place, then take from the bag and put in a covered dish. When preparing the rest of a meal, mix with the curd rich sweet cream, sugar and nutmeg. Some prefer salt and pepper, but the sugar gives it the place of fruits or acids. This preparation of milk will often be found most salutary and wholesome for dyspeptics and weak inflamed stomachs. The clabber is also very nutritious and easily digested.

Muffins.—One pint of milk, one dessert spoonful of butter, two eggs, half gill of yeast, a little salt, and as much flour as will make it thick enough for a spoon to stand. To be baked in rings.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, $4; six months, $2.25; three months, $1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week.	1 month.	3 months.	1 year
Per line..... .25	.80	$2.00	$5.00
One-half inch.....$1.00	$3.00	$7.50	24.00
One inch..... 2.00	5.00	14.00	40.00

Rates of Subscription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers and subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞ No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearages that may accrue on club subscriptions will be charged at full rates.

No SUBSCRIPTIONS will be received at less than four dollars a year, except in clubs of five or more, or through club or Grange agents who have sent five or more subscriptions during the year.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, June 17, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Sheep Corrals and Dip; A Beautiful Tree; Cornering the Harvest, 385. The Week; Agriculture in Japan; The Champion Fruit Drier, 392. The Centennial at Philadelphia, 393. Patents and Inventions, 396.
ILLUSTRATIONS.—Sheep Corrals and Dip on Cotate Ranch, 385. Diagram of Machinery Hall, 393.
CORRESPONDENCE.—Traveling Correspondence; Botanical Excursions; Agricultural Specimens for the University, 386 7.
ARBORICULTURE.—The Cork Oak Tree, 387.
THE DAIRY.—Dairying in Kern County, 387.
HORTICULTURE.—Hints for Eastern Shipment of Fruit, 387.
GENERAL EDITORIALS.—Points of Value in the Grange; Worthy Master's Decision; From the Granges; In Memoriam, 388.
AGRICULTURAL NOTES from various counties in California and Montana, 389.
HOME CIRCLE.—Peter's Ride to the Wedding (Poetry); Overland Chat; Saving Matches; The Power of Kindness; Harmony in the Married State, 390. Moving Incidents; Origin of "Home, Sweet Home;" Interesting Spider Story, 391.
YOUNG FOLKS' COLUMN.—Little Mexican Divers at Mazatlan, 391.
GOOD HEALTH.—Miasms; Sunlight, 391.
DOMESTIC ECONOMY.—Fancy Cookery; Useful Hints; Cottage Cheese; Muffins, 391.
QUERIES AND REPLIES.—Grafting Roses; Grapevine Flea Beetle, 393.
MISCELLANEOUS ARTICLES.—Notes from the Threshers, 392. "Chickens Coming Home to Roost," 396.

NEW ADVERTISEMENTS.

The Champion Fruit Drier, J. M. Keller, Agent, Sacramento, Cal.; Caution to Purchasers of Fruit Driers, Alden Fruit Preserving Company of California; New Feature in Life Insurance, James Munsell, Agent, S. F.

The Week.

The work goes bravely on. The week brought the first carload of new wheat, and it was speedily taken by a miller at a good price. The threshers are now at work far and wide, and the act of producing the splendid crops of 1876 is approaching completion. There will be long-continued days of work in the fields this year, for the harvest is great. Our exchanges from the interior describe an active demand for harvest hands. The idlers are abundant in the large towns and along the highways. If there be any manhood in them, let them show it now.

Although this is a busy time with our readers, we are cheered to learn from letters received that the RURAL PRESS is remembered even in the press of active work, and regarded as an efficient aid in the agricultural advancement of the day and the State. It is our desire and our ambition to produce a newspaper from which the farmers can gain golden grains of new truth amid the hurry of the harvest time as well as during the leisure which the season of storms bestows.

There is another harvest which is already bringing the hues and perfumes from a thousand orchards to grace the city markets. The fruit crop is advancing toward a glorious fullness. There is life among the trees as well as in the grain fields. Far and near preparations are being made not only to enrich the markets with the fresh luscious fruits which are ripening, but the enterprises to preserve the surplus are being pushed in many parts. Fruit driers are vieing with each other to do work which shall double the orchardist's receipts, and a movement is beginning with a will, which we trust will not cease until California dried and canned fruit will rule in all the Eastern markets.

Agriculture in Japan.

Hearing of the passage of President Clark, of Amherst agricultural college, through our city on his way to his new field of labor in Japan, we bethought ourselves to gain some information concerning the ends in view in his labors. We were courteously received by the Japanese vice consul, Mr. Samro Takaki, from whom we sought information at his office, 703 Market street.

President Clark sailed for Japan by the last steamer, taking with him two young men, graduates of the Amherst agricultural college, who will be instructors in the Japanese institution. He took also a full assortment of text books on agriculture and the ministering sciences. It will be President Clark's mission to have charge of the Japanese institution, prescribe its course of instruction and, we presume, bring his wide observation to bear upon the agricultural adaptations of the region to which he is going.

Mr. Takaki informs us that the agricultural college is established at Sapporo, capital of the island of Yesso. This island is thinly settled, and it is the purpose of the Japanese to develop its resources as far as possible, and thus attract immigration from other islands of the empire. The other islands are thickly settled. Yesso has wide and unoccupied mountain slopes, and if a population can be induced to locate upon them, that portion of the empire will take higher rank in value and usefulness. Hitherto, Yesso has been chiefly valuable because of its fisheries, which abound in salmon, codfish, herring and sea weed, which is largely exported to China, but the island has large coal beds and heavy forests, with showing also of the metals. All these chances for profitable industry it is the aim of the Japanese government to develop. It is thought that good results can be obtained with the cereals, beans and similar products. The climate being like that of New England, it is too cold for rice, except in a few localities. All the adaptabilities of the island are to be closely examined.

It is to promote the work of the government in pushing forward the agriculture of this region that President Clark is called to take charge of the Japanese agricultural college. In this matter, as with other directions of progress now being pursued by the Japanese government, the policy is liberal and wise. They are laying foundation for the education of the youth in the way in which the country offers them opportunity for successful labor. They have chosen one of the very foremost of our agricultural instructors to guide them in this work, and we expect that his labors will strengthen the cause of progressive agriculture in Japan as it has during the last few years in Massachusetts.

STATE AGRICULTURAL SOCIETY.—The Executive Committee of the State agricultural society held a meeting at Sacramento, June 10th, and a committee was appointed to arrange a speed programme for the races of the society during the next State fair, consisting of Fred. Cox, L. U. Shippee, Chris. Green, R. S. Carey and Robert Beck; then the meeting adjourned to meet at the call of the Secretary. The gold and silver medals of the society are now ready for distribution. Those entitled to gold medals are: C. A. Johnson, H. S. Beale, J. C. Devine, V. S. W. Parkhurst, George A. Deitz, J. H. Davie, Felissa Gabrilla, R. Chalmers, J. T. Stoll, Baker & Hamilton. Silver medals, Lonergan & McBride, A. Menke, J. C. Meusdorffer, Fisk & Gill, Huntington, Hopkins & Co., A. Flohr, Withington & Bagley, Clark & Co., Price & Tryon, S. J. Nathan, P. Goggins, Dale & Co., Miss Elise Horsley.

WEST SIDE IRRIGATION.—The Commissioners of Irrigation for the West Side district held a meeting at Grayson a few days since, a full Board being present. On motion, Amos C. Lander was appointed Secretary, at a salary of $25 per month. On motion, William Hammond Hall was appointed Chief Engineer of the West Side district, to make surveys, plans, etc., and have general supervision of the work. Mr. Williams was instructed to arrange with Mr. Hall in regard to salary and the commencement of the work. On motion, the President was authorized to employ such assistance as he might deem necessary to canvass the district and solicit the subscription of such a sum of money as will be necessary to carry out the provisions of the law.

THE CHAMPION FRUIT DRIER.—The Champion fruit drier is introduced to our readers this week by an extract from a letter published elsewhere and by an illustrated advertisement by Keller & Co., of Sacramento. The advertisement contains much explicit information.

ON FILE.—"Fruit Driers," Inquirer; "Botanical Excursions," J. G. L.; "Poultry Notes," M. E., Jr.; "Agricultural Education in Germany," J. W. A. W.; Queries concerning "Capacity of Pipe," "Apricot Roots," and "Twin Calves."

A. A. A.—D. D. T. Moore, the former popular publisher of *Moore's Rural New Yorker*, has established the "Agricultural Advertising Agency" at No. 34 Park Row, New York. We wish him success.

The Champion Fruit Drier.

From the recent correspondence of a mountain fruit raiser who lately visited Sacramento we extract the following:

"At the hardware store of Keller & Co. I found the "Champion fruit drier." It consists of two distinct parts. The first part is a furnace made of sheet iron, 24 inches wide and from 4 to 12 feet long. Six inches from the top there is a partition of iron running from the front back to within five or six inches of the other end. The fire is kept under this partition, and the heat passes back and up through the opening and returns to the front and passes out at a chimney. The heat is equalized by this arrangement all through the chest of drawers set over the furnace in which the fruit is dried. This is a well planned furnace, and the Champion will hold at least a part of his championship in the novelty and proficiency of this furnace. The other part of this drier was a frame of light wood set over this furnace and holding the trays, which have their bottoms of wire cloth, and come in on each side and meet in the center over the furnace. Over each tier of drawers there are five holes cut in the top, covered by slide doors to let the hot air, laden with moisture from the fruit, pass off, and the waste is at once replaced by other hot air coming in at two ventilators on the sides of the furnace. The machine I saw at Keller's had 32 drawers, but the drier can be built any size to dry from 500 to 20,000 pounds of green fruit per day. This is a well planned drier throughout, and will supply a long needed necessity in the fruit interest of this coast, and will save millions of pounds of fruit that would otherwise be lost."

DEATH OF CHILE CATTLE.—A former resident of Alameda county writes us as follows from Chile, South America: "In the middle and northern Chile, generally in the fall and during dry weather, may be seen 'cobwebs' covering some of the banks of the creeks, and many times on the flat lands. These webs are filled with innumerable red ants. By close examination it is found that the ant makes this web as a protection against a voracious enemy, a worm of light yellow color, with a black head and about one-quarter of an inch long altogether. This worm ejects a fluid over the swarms of ants, and after destroying them in this way swallows them at his leisure. Cattle in feeding upon the grass sometimes with their tongues take up also the cobweb with the worm inside, and the worm taken alive in the stomach or the fluid swallowed is positive death. The animal becomes stupid, the eyes red and bloodshot, and in a little while the animal lies down upon its side, where in a short time it expires. Upon examining the intestines they are found destroyed as if by acids, and the paunch is affected in the same manner. The lung is inflamed and the body of the animal is very warm. The legs become stiff before death takes place. All the usual remedies for poison have been tried without effect."

THE CAL. BOTANY COMING.—A correspondent of the Santa Barbara *Press* writes from San Bernardino county as follows: At Crafton, one of the most desirable inland retreats for invalids in this southern country, we find a delightful group of sojourners from all parts of the world, and among them those enthusiastic botanists, Prof. Lemmon and Dr. Parry, who are searching every canon and hillside and scouring the very desert to hunt out any unknown individuals of the California flora. They are generously remembering the Santa Barbara college in their collections. We were interested to see in their hands a recent letter from Dr. Asa Gray, assuring them that the long promised work on the botany of California was receiving its last touches, and would soon be in the hands of the printer.

FRUIT DRIERS SOLD.—We are pleased to notice that the fruit drier manufactured by the Sacramento plow company and advertised in the RURAL, is meeting with ready sales, as announced in the following item from the *Sacramento Valley Agriculturist*: Ready & Co. have already sold several large fruit driers and have orders on hand for quite a number. They are working several hands and getting driers made as fast as possible. This activity leads us to believe that the farmers are taking steps in the right direction, and that they will try to save a part of the fruit raised this season. California for several years has produced more than enough fruit for its own consumption for some time, but notwithstanding that fact, large amounts of dried fruits have been imported, which we hope will not be the case hereafter.

A NEW CHURN.—We learn from the Napa *Register* that the Enterprise mills in that city are now turning out the Groat churns, and that there is about to be formed an incorporated company to prosecute the sale of these dairy implements. The principal material used in their manufacture is sugar pine and birch woods and galvanized iron. There are six sizes of the churn made—the largest being capable of churning as many pounds of butter at one time as any dairy in the country would require. The largest now finished is made to work by hand and will churn 100 pounds of butter at one time. A still larger one is to be constructed, to be operated by horse power, of double or treble that capacity.

QUERIES AND REPLIES.

Grafting Roses.

EDITORS PRESS:—In answer to the query in the RURAL of June 10th, in regard to the grafting of roses, I would recommend that the roses be not grafted but budded From the first of June until the latter part of August (the same as for orange trees), cut out the bud, with some wood attached, make a long cut and a short cut thus: ⊢, with a sharp knife, set in the bud and bind it very tightly, all as quickly as possible. After two weeks loosen or cut the thread that binds it. It is not usual to graft roses, because it consumes more time and cannot be done without smearing with wax. In Europe there are thousands of roses grafted each year in greenhouses, for which purpose wild roses are set out in pots three months before. Roses can be budded with active or dormant buds. By fall they will have thrown out shoots a foot long, which should be cut back to three or five buds.—CHAS. TODENHAGEN, Madrono station, Santa Clara Co.

Grapevine Flea Beetle.

EDITORS PRESS:—For the two last seasons my Hamburg grapevines have been injured by bugs eating the leaves. They do not eat other varieties in the same row. I have captured one of them and have wrapped him up in leaves that have been injured by them. Please give the name of the bug, and the remedy for keeping them off or destroying them. Some of the vines have not a sound leaf on them, and it must be injurious to the grape crop and the health of the vine. Strawberries are nearly out; blackberries are turning and bushes very full; the grape crop promises well; orchard fruit will be abundant and of good quality.—P. H. MURPHY, Brighton, Sacramento Co., Cal.

Our querist's specimen came to hand in a demoralized condition, for the postmaster had apparently dropped his stamp on him. We would suggest to all our friends who favor us with insects, etc., for examination, that they send them in little pasteboard boxes, as the postoffice men have more respect for packages of that kind.

Restoring this insect as far as possible and observing the style of his work on the leaves, we conclude that it is the pest known as the grapevine flea beetle, *Haltica chalybea*. If this be the true conclusion our querist can satisfy himself by observing other evidence than he submitted to us. The insect, like all flea beetles, jumps around in a lively manner and is very difficult to catch. In length it is about three-sixteenths of an inch, and is of a dark shining color. The beetles pass the winter hibernating under loose bark or in crevices of posts or in rubbish, and come out early in the spring and bore into the buds and scoop them out before they open. When the leaves expand they feed upon them greedily and deposit small orange colored eggs in clusters on the under side of the leaf. These eggs hatch out into dark colored larvæ or worms about one-quarter of an inch in length (some more, some less). These larvæ immediately go to work upon the leaves, generally feeding upon the top side, and they devour everything but the large ribs of the leaves. The remedy which is generally applied is to dust the leaves thoroughly with dry powdered lime as soon as the worms appear. The only way we know to destroy the beetle is to catch him, and as the flea beetle borrows some of the agility of the California flea, it may be inferred to be no easy task. If, however, the larvæ are attacked diligently the trouble will be greatly reduced.

Notes from the Threshers.

FROM an informant we learn that on the Orestimba, west of the San Joaquin, ten engines propelling threshers and 47 headers can be seen at work at one sight. Fred. Leavenworth, who of the water works of this place, in threshing barley on Timothy Paig's ranch, on the West Side, for the first six days of the run averaging 2,500 bushels per day. Two days in succession he threshed 3,000 bushels each day.—*Stanislaus News.*

THE usual train of threshers from Napa and Sonoma have been moving through towards the San Joaquin for the past two weeks, and they are now in the busiest of their harvest season there, while, with a continuance of the weather we have been having, but little wheat will be ready for cutting in this section before the first of July.—*Contra Costa Gazette.*

MR. JAY GREEN, of West Grafton, reported to us the amount realized from the threshing of barley taken from a 30-acre field. It was threshed on Monday of last week, and he realized 601 sacks—total weight, 63,226 lbs.—which would be an average of 44 bushels per acre. He informs us that it should have been cut one week before it was, but owing to the drawback, caused by the header being out of repair, it was allowed to stand and ripen too much. The ground upon which this barley was raised was not considered worth cultivating a few years ago. Twenty acres of it is hill land, mixed with gravel, and ten of it adobe, and it is considered a very fine turn-off, all things considered.—*Yolo Mail.*

WE hear of several threshers having been started near here this week in fields of early barley. The cool weather causes grain to ripen slowly and but little wheat will be ripe enough to cut for several days yet. The grain is very heavy and the harvest will continue until late in the fall.—*Merced Argus, June 10th.*

OREGON STATE AGRICULTURAL SOCIETY.—We are indebted to E. M. Waite, secretary of the Oregon State agricultural society, for a copy of the newly revised premium list for 1876, which contains as well the programme, rules and regulations of the same, reports of committees, secretary and treasurer for 1875, together with the premiums awarded for that year. The annual fair for 1876 will commence on Monday, Oct. 9th, at the fair grounds near Salem, and will continue during the week.

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 5.

The bright and sunny May days and the charming atmosphere which has prevailed for a short time past has drawn an increased number of visitors to the fair grounds.

The Board of Judges

Have completed their organization, and are now getting down to the vigorous work before them. They are fast becoming acquainted with each other and are constantly passing from one building to the other to examine thoroughly and fully comprehend the merits of the various specialties upon which they have been commissioned to express an opinion. It is understood that they have adopted a badge which will soon be placed upon their persons, and by which they will be more readily recognized by exhibitors and visitors. Such a distinction would seem to be not only somewhat out of place, but exceedingly annoying as well, from the natural effect it would have of drawing crowds around them when passing through the grounds, and especially while inspecting exhibits, a duty which one would suppose they would desire to perform with as much privacy as possible. The report may not be correct, but at all events it is so circulated and published in the city papers this morning. In one of my letters I mentioned that each judge receives $1,000 in compensation for his services. Such compensation was so fixed, at first, all around; but recently the pay of the American judges has been reduced to $600. The Board comprises 125 American judges, who have been carefully selected by the Centennial Commission, and divided into 28 groups. To these have been joined 100 foreign judges, who have been appointed by the representatives of the several foreign governments exhibiting at the exposition. They occupy for their sessions a large and commodious building, containing a large general hall and a sufficient number of small committee rooms to accommodate each of the several divisions or groups. Mr. Scott, of San Francisco, has not put in appearance yet, but is expected about the 10th of June. Gen. Naglee, of San Jose, has reported his inability to be present on account of sickness in his family. Gen. Gibbons, U. S. A., of Montana, cannot be found; he is out hunting Indians, and Henry Mitchel, of Cincinnati, has been appointed in his stead. About 100 of the foreign judges are already on the ground.

The Sunday Opening Question, Etc.

The question of opening the Exposition on Sunday has created a large amount of interest, *pro* and *con*. The Commissioners, or a large majority of them, are decidedly opposed to opening; but there is a large element in the city who favor it. They desire the opening, ostensibly, to accommodate the working masses; but from what I can learn it is really a pecuniary matter with them. It will bring thousands into the city on Sunday who now stay away, and largely increase the receipts of the exposition, whereby there will be a better chance for holders of Centennial stock to get a dividend, of which there is now a very slim chance. There is something like a million and a half of Centennial stock held in and near the city, for which the holders are very anxious to get at least a partial return. Several large public meetings have been held to induce the Commission to change their decision. It is said that the one held in and about Musical Fund hall last Saturday evening was attended by 5,000 people. But a quiet little demonstration made by the Presbyterian General Assembly, held last week, and headed by Dr. Prime, seems to have inspired the Centennial managers with new courage to hold out against the popular clamor. It is to be hoped that they will persevere in this decision. Any change therefrom would bring a scandal upon the Exposition and a national disgrace upon our people. I believe the Pacific coast Commissioners are all right in this regard. Indeed but very few of either the managers or the exhibitors favor any change. If the buildings were opened but very few of the exhibitors would uncover their stands or operate their machinery. Six days in the week is as much time as they can give the dear public—considering that they are enlisted for a six months' campaign.

Machinery Hall.

Solomon was undoubtedly a wise man—for his day; but if he had lived in the present age of the world, and been permitted to note the progress of improvement during the last hundred years, he certainly would never have written, in regard to the physical devices of men, "There is nothing new under the sun;" for no man can take a walk through this vast building, and examine the fourteen acres of machinery here displayed, embracing many hundreds of separate and distinct machines, to say nothing of the infinitude of their modifications, without being fully convinced that the past century has devised at least a few things that would be "new under the sun," even to the builders of Solomon's temple, were they here to see. But then the sacred writer evidently had in mind the moral "crookedness" of his fellow men rather than their physical devices. Certainly he had never contemplated an "international exposition," or perhaps any machine other than the potter's wheel or the simple device by which his daily amount of "corn" was reduced to flour.

In no part of all these immense grounds is it made so apparent as in machinery hall that life is indeed real and earnest. It is here and in the government building, near by, where a large amount of machinery has also been placed, that people come most to study. Here is where the thoughtful among them most frequently gather into little companies and with knit brows enter into the careful examination of the peculiar mechanism by which the various and wonderful results of industry and skill are wrought out. Especially is this the case wherever machinery is engaged in "making things," such as watches, curiosities in glass, metallic cartridges, letter envelopes, weaving portraits, rifling gun barrels, turning gun stocks, and by machinery cutting out the curious and irregular mortices for receiving the locks, casting type by machinery, etc., etc. Perhaps the most marvelous and really useful exhibits in this building are the two great printing press rivals—the English Walter and the American Bullock presses. The great number of spectators observing and carefully studying all these and various other processes demonstrate the little that is known by the average public as to how the various familiar objects of everyday use are made, and yet how eager nearly all are to acquire such information; and it may here be remarked that this kind of interest affords a gratification of quite as high an order, and far more useful than that which comes from viewing and studying the beautiful creations of genius as shown in the art gallery, or the more useful and practical results of man's industry as displayed in the main exhibition building. To the mechanic and inventor no such field of study and research has ever before been presented. The handiwork and the skill of some 20 of the leading nationalities of the world are here represented—the whole forming an aggregate which is perfectly bewildering to contemplate.

The Structure and Dimensions of the Hall.

The building in which these marvelous results of human industry are collected is itself a marvel. It is 1,403 feet in length, 360 feet in width, with an average hight of about 60 feet. Our readers are familiar with its general outside appearance from illustrations already given, which are strictly correct in every particular. Eight main lines of shafting are provided for operating the machinery which has been placed within, which, with the counter shafts, and those in the "hydraulic annex," must measure over two miles in length—all driven by a single engine, the great double-acting upright Corliss. Each main line is capable of transmitting 180 horse-power. The main entrance is upon the east end or right hand of the diagram as shown herewith. The hydraulic annex, as shown, has been constructed for the special convenience of the immense array of pumps which are here shown from Europe and America and of all sizes from a common hand pump to a mammoth rotary which is arranged to represent a miniature Niagara in the shape of a waterfall 30 feet high, 36 feet in breadth, with a weir depth of four inches, which gives a nearly continuous sheet of water from top to bottom of the fall. This result is produced by a double rotary pump, and forms quite a feature of itself. The annex is 208x210 feet in extent, and is filled almost entirely by pumps, receiving their water from and discharging the same into a large central tank as shown, 106x60 feet in area.

Two railroad tracks are laid the entire length of machinery hall, through the two principal avenues as shown, and one along, just outside the southern wall. These tracks connect directly with the Pennsylvania railroad, and upon them nearly all the ponderous machinery has been introduced into the building, and lifted into place by the aid of two heavy cranes in the English exhibit, which will be noticed in their proper connection.

Relative Proportion of Area Occupied.

A close examination of the diagram will enable the reader to form a very accurate idea of the proportionate amount of area occupied by the different nationalities in this hall. The sections designated by *figures* are occupied by foreign nations, those by *letters* and those left blank are occupied by the United States. The foreign exhibitors occupy only about one-quarter of the interior space. It was expected that a larger space would have been taken from abroad, but when we consider the distance of transportation and expense involved in such exhibits, the very small chance of effecting sales, and the much smaller employment of minor machinery in English and European shops to what is used in this country, the proportionate foreign exhibit may be considered very creditable.

In the main and much larger building, however, the proportion is reversed, for there the United States exhibit occupies only a little more than one-quarter of the entire area. But then, as an offset to this disparity, the United States occupies the whole of the Government building, 480x360 feet in dimensions, also the shoe and leather dealers' building, in which all that class of our exhibits are made.

In agricultural hall nearly one-half the space is occupied by foreign exhibitors; and in the art gallery fully three-quarters. Hence it will be observed that the average amount of foreign display must not be judged by what is shown in the diagram to-day.

The number of foreign nations represented in machinery hall is 15; in the main building, 30; in agricultural hall, 18, and in the art building, 18. We purpose to give diagrams of each of the above buildings, showing the proportion of area occupied by each nation, and its relative position to all others. These diagrams will be found very convenient, in fact almost indispensable, in forming anything like an accurate conception of the display from any description which can be written.

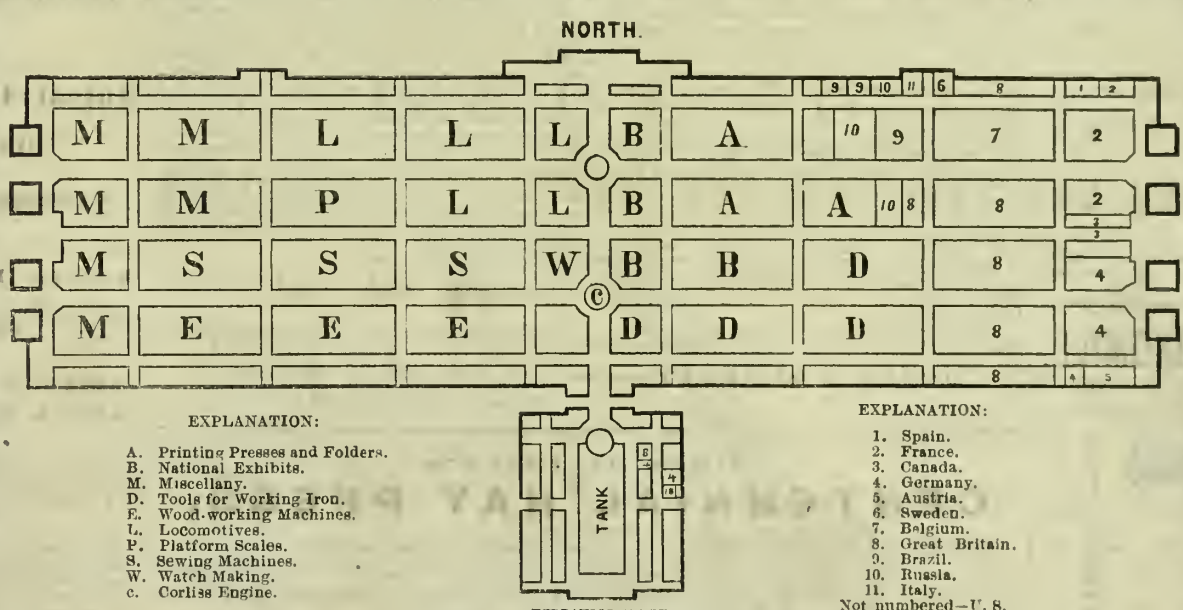


DIAGRAM OF MACHINERY HALL.

The Individual Exhibits.

We come now to the individual exhibits, and we will endeavor to give as clear and comprehensive a view of them as possible in the limited space at our disposal. Entering the building by the central entrance at the east, the visitor first encounters the foreign exhibitors, who have very properly been accorded the place of honor in position. The first thing which arrests the attention is the exhibit of our neighbor on the north,

The Dominion of Canada.

Although this exhibit appears somewhat contracted on the diagram, it is nevertheless quite extensive, interesting and creditable, and is eminently suggestive of the region whence it comes. An array of boats and fishing tackle forms a prominent feature. Nova Scotia sends a small prospecting quartz mill, much after the "Stockton" pattern, as emblematic of a very important feature in her industry—that of mining. It is the only exhibit of the kind, save the Nevada mill, on the grounds. There is also a magnetic separator, for separating magnetic sands from those not magnetic. It is used in the separation of the titanic iron sands of Canada for metallurgical purposes, and might be successfully employed by the large placer mining companies in California in separating the heavy magnetic black sands from the lighter ones, which may afterwards be more readily washed away from the gold by the pan or riffle. Several spark-arresters attract attention here, and near them may be seen a number of portable hot blast forges, brick, tile and pipe machines, numerous specimens of bar iron, and an ingenious type setting and distributing machine, which, it is claimed, has a capacity of from 12,000 to 15,000 ems per hour from undistributed type.

France.

Passing a little to the right—keeping on diagram in view—we come to the French section. The machinery consists chiefly in some hydraulic presses not shown in operation, a set of machinery for preparing chocolate and another for manufacturing confectionery in actual work, as is also another near by for cutting and stamping, from sheets, fancy toilet soaps. Both confectionery and soaps are sold to ready buyers, and the proprietors will evidently make their exhibit pay. The heavy exhibits of France consist chiefly in a few forged car and locomotive wheels, shown in sections in process of manufacture, and water pipes covered and protected from decay by a heavy coating of sand and asphaltum. Several machine lithographic presses are also shown in motion, but not doing work. France excels all other countries in producing nice and cheap pictures, and of course she should show how she makes them.

Germany.

Now, turning to the left of the Canadian exhibit, we come upon the German department, the most conspicuous object in which is a huge monumental trophy, 28 feet high, built out of her peculiar ores of iron and their white, large crystal product of spiegeleisen pig, broken into small pieces. The display is very fine and is not equaled by any other exhibit of the kind. This peculiar quality of iron contains from 12 to 15 per cent. of manganese. It is used for making the best quality of Bessemer steel, by mixing in small proportions with other irons.

Another interesting exhibit is a new atmospheric gas engine, exhibited by Langder & Otto, which appears to have obviated much of the impracticability hitherto connected with gas engines, particularly the heating of those parts directly exposed to the force of the explosion, and in taking the work off the piston in its rapid upward motion and confining it exclusively to the pressure of the atmosphere in forcing the piston down. In ordinary gas engines the force of the explosion is mostly converted into heat and thus lost for effective use, while at the same time it works great detriment to the machine. I shall not stop to further describe this novel motor at this time, as I have been promised a full illustration of the same at an early day, which I shall forward to the PRESS.

A very ingenious device, designed for turning a drill, worked by a rope, in deep well sinking, is also shown by a working model, but cannot be satisfactorily described without illustrations. It is well known that ropes are much more convenient for use in such work than iron or wooden rods, and would save more than half the expense of deep well sinking if they could be practically used. Several ingenious appliances have been devised with that end in view, but without success. This seems to accomplish what is desired, viz., to turn the rope and drill in regular intervals of space, so as to make a straight hore. It certainly works perfectly in the model, but how it acts in a deep well may be quite another thing. If it will do what is claimed for it in practice, it is well worth the attention of extensive well borers everywhere.

Krupp is also here with one of his 1,600-pounder guns and several small ones from his mammoth establishment at Essen. As I write workmen are engaged in making preparations to place the large gun just inside the main entrance to the machinery hall. The ordinary plank floor is being covered by square 10-inch timbers, on which a new floor will be laid to accommodate the monster.

W. B. E.

Centennial Grounds, May 30th, 1876.

THE TUTTLE PUMP.—A San Jose exchange tells of a working model of a pump recently invented by H. H. Tuttle, of that city. The model and the pumps now being manufactured contain three plungers, working from a shaft, the cranks of which are so placed at alternate angles, so that while one plunger is lifting the others are aiding it in their downward plunge, the pump keeping up a continuous stream without a jar or a tremble, with little more power than is necessary to work one plunger. Below the three cylinders or pump boxes is placed a water tank, which is set so as to make the suction and distributing power equal and continuous in each cylinder. The stroke of the model shown us was two and one-half inches, the whole pump not taking up more space than would be occupied by a common water pail, and this "little giant" is capable of and did raise and distribute 60 gallons of water per minute. A pump of the five-inch stroke pattern is capable of lifting 200 gallons of water per minute.

TUOLUMNE REUNION.—We have received a complimentary invitation to the ninth annual picnic of the Tuolumne reunion association, which will be held at Badger's Central park, Oakland, on Saturday, June 17th. A full list of literary and social exercises is provided for, and the occasion will doubtless be pleasant.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

EDWARD FRISBIE, on line of Cal. P. R. R., near Vallejo, Pure Bred Leicester Sheep For Sale.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh and Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

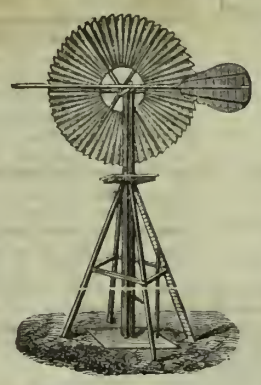
ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Faucy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

CENTENNIAL WINDMILL.

CHEAPEST. Most DURABLE.



I am now selling this Windmill at prices less than a corresponding grade of mill has ever been offered in this market, therefore I claim it is the CHEAPEST.

The Wheel is a solid rosette, constructed of the best material. All the bearings run in wood, and can never cut or grind if left without oil for a few days.

The Crane, or Turntable, is composed of wrought and cast iron, combined so as to secure all the strength of the material used. The Hub and Crank Flange are not fastened by keys or pins, but cast on to the shaft, and cannot come off or become loose. For these reasons I claim it is the MOST DURABLE.

The Rosette Wheel has more power than any other of the same diameter. The Cross-vane is easily operated, and perfectly controls the mill. These mills can be set up by any person, as there is nothing complicated in their construction.

PRICES:

10-foot Mill, Rosette Wheel	$75.00
12-foot " " "	90.00
14-foot " " "	125.00

Tanks Built to Order. Pumps of the best make on hand and for sale by

E. O. HUNT,
37 Fremont Street, San Francisco.

☞ Save the Commission to Agents by Purchasing Direct from the Manufacturer.

STRAW BURNING ATTACHMENT.

KING'S PATENT.

The Only Successful Burner Yet Introduced.

Having secured the exclusive right to manufactnre and attach to engines J. R. KING'S PATEN STRAW BURNING ATTACHMENT, I respectfully invite the attention of the threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and require one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in loca ities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with but little instruction have fired th m the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

MODESTO, October 9th, 1875.

MR. J. R. KING—*Dear Sir:*—We have used your Attachment on our Automatic Hoadley Engine the past two seasons; it furnishes all the power necessary to run our large Pitts Separator with a Jackson Feeder attached; it more than gave satisfaction to all the farmers for whom we thresbed; it required but little straw to furnish the necessary amount of steam; our engineer had a boy to fire it, and he attended to the Separator and Engine; it was much safer than a wood burner, for when we wished to stop or move, all that was necessary was to close the door and everything was perfectly safe. We used no spark arrest, as there were no sparks to arrest. It was a perfect success in every particular. Yours, etc., BENTLY & YOUNG.

LINDEN, October 16th, 1875.

MR. J. R. KING—*Dear Sir:*—Having used one of your Straw Burner Attachments on my Ames Engine (wood burner) No. 3, I feel it my duty to state that it proved to be far more than I expected. It furnishes sufficient power to operate my large Pitts Separator. I have seen several regular Straw Burning Engines in operation, and would not exchange for any small consideration. I used it all the season without the least difficulty and know it is a success. Yours, etc., J. H. DUNCAN.

The following parties used my Attachment on their Wood Burning Engines last season: Covert & May, Grayson, Stanislaus county; W. H. Gilmore, Stockton, on an old style Hoadley Engine, 8x12 cylinder; Morse Bros., Modesto, Stanislaus county; C. F. Leavenaworth, Modesto, Stanislaus county, old style Hoadley, 8x12 cylinder. On the 13th of May, at Stockton, in a test of Straw Burning Engines, a very lively competition ensued between the different styles and patterns of machinery, particularly between the two Straw Burning Engines. My Attachment claims superiority and preference over all others on account of its adaptability to all styles and patterns of wood or coal burning engines, to which it can be fitted. It has a conical feed tube or funnel, through which the straw is fed to the fire box, the interior arrangement of which is also peculiar, containing a half set of coarse grate bars standing six to ten inches high, and adjustable to any hight desired and sloping toward the front. In front of the tubes a circular concave plate is so arranged as to cause the draft to first strike the top of the boiler and then draw down behind the plate through the small flues. Engines rigged with this burner are absolutely safe from sparks, there being no necessity even for a spark arrester on the smoke stack. To show how rapidly it makes steam we add the following record of its performance on Saturday, attached to a Gaar, Scott & Co.'s portable engine: The fire was lighted with the boiler partially full of cold water, (two gauges cold,) and in 25 minutes the whistle was blown, the gauge showing a pressure of 10 pounds of steam; in 30 minutes, 20 pounds; in 32 minutes, 30 pounds; in 34 minutes, 40 pounds; in 35 minutes, 45 pounds; in 37 minutes, 50 pounds; in 38 minutes, 55 pounds; in 40 minutes, 60 pounds; in 42 minutes, 65 pounds; in 45 minutes, 70 pounds; in 47 minutes, 80 pounds; in 49 minutes, 90 pounds; in 56 minutes, 100 pounds. On reaching a pressure of 100 pounds the barley mill, to which it was attached by a belt, was started and run to its full capacity, grinding at the rate of two tons per hour; during this time steam raised to 130 pounds, pumping more than a full supply and frequently blowing water out of the boiler; then stopped firing until the steam gauge indicated 80 pounds; commenced firing again and got 140 pounds in 25 minutes; water raised in boiler to three gauges; mill run to full capacity all the time; this was a Gaar, Scott Engine, cylinder 7x13 inches; boiler, diameter, 29 inches; 27 flues, 2½ inches diameter, and 54 inches long; fire box, length, two feet eight inches.

The Attachment can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced county. Byron Jackson, Woodland, Patentee of Self Feeder, agent for Solano, Yolo and Colusa counties.

All orders addressed to J. R. King, Patentee, in care of the Globe Iron Works, or H. C. Shaw Plow Company, Stockton, will receive prompt attention. Send for Circulars.

JOHN CAINE, Proprietor Globe Iron Works,
STOCKTON, CAL.

JOHN H. GOVE'S CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $250.**

Manufactured and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

A Liberal Discount to the trade. For Sale by all Agricultural Dealers.

Live Stock Notices.

Pure Blooded French Merino Rams
And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞ NEW MILCH DURHAM COWS FOR SALE.

THOROUGHBRED SPANISH MERINOS.

Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS, Santa Clara, Cal.

THOROUGHBRED SHEEP FOR SALE.

The undersigned offers for sale his entire herd, consisting of 150 head of Thoroughbred Spanish Merinos, Bucks and Ewes. The Sheep are good, and in good condition, and will be sold reasonable. For further particulars, enquire of

A. C. PAULSELL,
Stockton, Cal.

FOR SALE,
AYRSHIRE BULL—4 years old.

ENQUIRE OF

A. B. ROWLEY, Mayfield, Santa Clara Co.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, one fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

INTERNATIONAL HOTEL

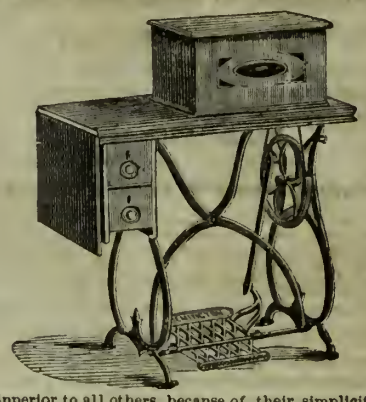
ALL NEWLY FURNISHED,

824 & 826 Kearny St., - San Francisco, Cal.

$1.50 & $2 per day. Free Coach to the House.

H. C. PATRIDGE, - - - Proprietor

REMINGTON SEWING MACHINES.



Superior to all others, because of their simplicity of construction; the most durable and are always ready for use; will do all kinds of work. Price of Machine as represented in cut, with Hemmers, Feller, Braider, Gouge Tucker, Quilter, Johnson's Ruffler, and Diamond set of Hemmers, $75.

REMINGTON SEWING MACHINE CO.,
629 Market st., under Palace Hotel, S. F.
AGENTS WANTED FOR CITY AND COUNTRY.

1845. 1876.

CHARTER PERPETUAL.

STRICTLY MUTUAL.

ECONOMY! SECURITY!

Mutual Benefit Life Insurance Company,

NEWARK, NEW JERSEY.

Assets, January 1st, 1876,

$31,085,011.11.

LEWIS C. GROVER.....President.
JAMES B. PEARSON.....Vice-President

EDWARD A. STRONG.....SECRETARY.
BENJ. C. MILLER.....TREASURER.
B. J. MILLER.....ACTUARY.

The following is a summary of the business of this company from May 1, 1845:

Total Receipts	$81,149,507 76
Paid Losses and Endowments	19,284,641 48
" Dividends or Return Premiums	19,224,524 15
" Surrendered Policies	4,284,344 82
" Expenses — Management, Commissions, Taxes, etc	8,167,913 05
Ratio of expenses	8.60 per cent.

These results are more favorable to the Insured than those presented by any company in the world.

ALL KINDS OF APPROVED POLICIES ISSUED.

☞ Dividends paid annually, or they can be applied on the Accelerative Endowment Plan, ORIGINATED BY THIS COMPANY, to which particular attention is called.

ACCELERATIVE ENDOWMENT PLAN.

THE plan is intended to meet the wants of those who wish protection for their dependents in case of premature death, and at the same time to make a wise provision for themselves in the event of surviving the productive period of life.

The plan proposes that instead of using dividends in reduction of the annual premium, the insured may, at his discretion, pay his premiums in full in cash, and surrender his dividends to the company. In consideration of this surrender, the company will agree to pay the sum assured when the policy-holder shall have attained a certain age, or at his previous death, instead of at death only, thus enabling him to procure an Endowment Policy at the usual rates charged for policies payable at death only.

If the policy is already an endowment, payable at a given age or previous death, the surrender of the dividend will enable the company to agree to pay the policy at a still younger age.

☞ The Mutual Benefit Life Insurance Company issues Policies insuring the lives of healthy persons residing in any part of the United States.

JAMES MUNSELL, Jr.,
Agent of Insured,
And Acting Agent for persons desiring Life Insurance.
224 Sansome St., San Francisco.

Davis & Sutton, Commission Merchants,
For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier. Tradesmen's National Bank, N. Y.; Eilwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

WIRE ROPE

For Mining, Shipping, and General Purposes.

All kinds and sizes on hand, or made to order; guaranteed of unsurpassed quality, and manufactured of any length. FLAT ROPES, ROUND ROPES and TAPER ROPES, of IRON OR STEEL.

Patent Endless Wire Ropeway

(WIRE TRAMWAY)

FOR THE RAPID AND ECONOMICAL TRANSPORTATION OF ORES AND OTHER MATERIAL OVER MOUNTAINOUS AND DIFFICULT ROADS.

This system has been in use for over three years and given thorough satisfaction.

PATENT GRIP PULLEY,

For transmission of power by means of wire ropes

WIRE.

Fencing Wire and Staples,
BALING WIRE,
SPRING WIRE,
GALVANIZED WIRE,
BROOM WIRE,
STEEL WIRE,
COPPER WIRE,
BRASS WIRE

And Wire of all kinds, on hand or made to order.

SOLE AGENT FOR

Richard Johnson and Nephews' Celebrated Telegraph Wire.

Full stock on hand in bond, or duty paid.

Wire Cloth and Wire Netting,

Full Assortment on hand for all Purposes,

—AND—

All Kinds of Goods in the Wire Line.

Send for Circulars, etc., to

A. S. HALLIDIE,

113 and 115 Pine Street, S. F.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of
Lea & Perrins' Sauce,
which are calculated to deceive the Public,
LEA & PERRINS have adopted
A New Label,
bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of
Worcestershire Sauce,
after this date, and without which none is genuine.

November 1874.

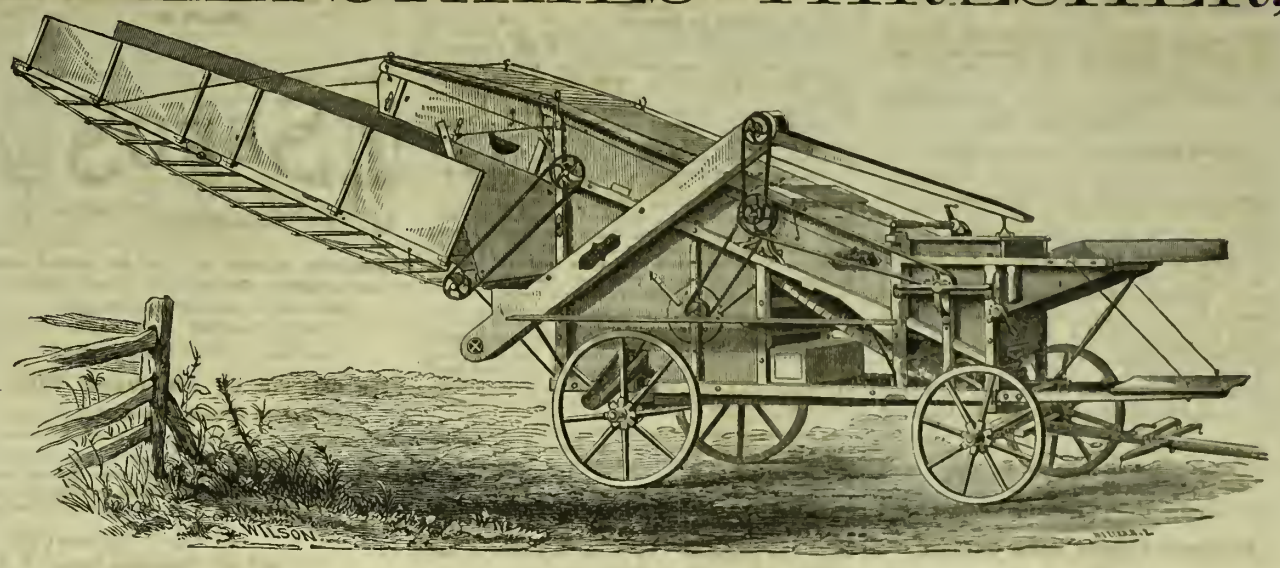
*** *This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

SWEEPSTAKES THRESHER,



With all the Latest Improvements for the Pacific Coast, Manufactured for

FRANK BROS. & CO.

We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

All who are in want of Threshers should not fail to call and see the improvements that have been put on the Sweepstakes for the Harvest of 1876. We also have the Cary Power, to which we would call special attention.

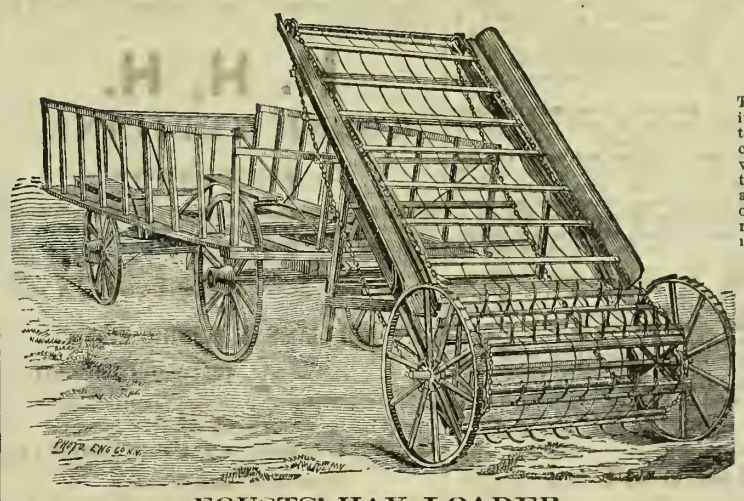
FRANK BROS. & CO.,

349 MARKET STREET., - - - - - - - - - - SAN FRANCISCO.

KELLER & CO.,

IMPORTERS AND DEALERS IN

AGRICULTURAL IMPLEMENTS, MACHINES AND FARMERS' TOOLS.



FOUSTS' HAY LOADER.

FOUSTS' HAY LOADER,

The only Hay Loader in successful use in the world. This Machine loads from the winrow, thus saving the labor of cocking, and will elevate hay on to the wagon at the rate of a ton in three minutes.

Hay Loader in Operation.

HORSE HAY RAKES, DOUBLE HARPOON HORSE HAY FORKS, at prices paid other dealers for the Single Harpoon.

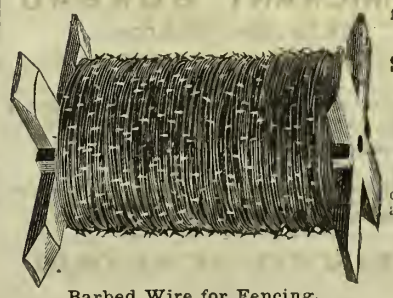
Excelsior Mowers, Meadow Lark Mowers, Woods' Mowers,

FISH BROS.' PACIFIC WAGONS, FISH BROS.' SPRING WAGONS,

Barbed Wire for Fencing.

We also furnish the Barbs separate from the Wire. They can be attached to any Wire Fence, anywhere.

The Buckeye Riding or Walking Corn Cultivator,



Barbed Wire for Fencing.

MORE SOLD EVERY YEAR THAN THE COMBINED SALES OF ALL OTHERS.

STRAW and FEED CUTTERS,

Wine and Cider Mills,

Gorham Seed Sowers and Cultivators Combined,

PLOWS and HARROWS.

Everything belonging to the Implement trade. We import our own goods; have no local agent. Parties sending direct to us save a large commission. Address,

KELLER & CO.,

43, 45, and 47 J Street, Sacramento, Cal.

Buckeye Corn Cultivator.

LEVI STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

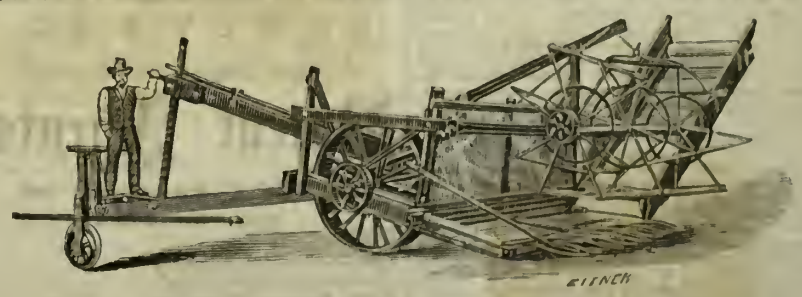
San Francisco.

These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

RICHARDS' IMPROVED HEADER



STOCKTON CHIEF.

This Header for stanchness of build, lightness of draft and capacity for securing fallen grain, has no equal on the Pacific Coast. The manufacturers offer it with full confidence that it will give perfect satisfaction to all who purchase and use it. Manufactured by

MATTESON & WILLIAMSON,

Corner of Main and California streets, Stockton, Cal.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

By Special Dispatch, Dated Washington, D. C., June 13th, 1876.

For Week Ending May 30th, 1876.

Horse Boots.—Hiram B. Cook, S. F., Cal.
Amalgamators.—Lafayette Hinckley, S. F., Cal.
Surcingles.—Pemberton B. Horton, S. F., Cal.
Car Axle Lubricators.—James M. McDonald, S. F., Cal.
Plows.—Gideon J. Overshiner, San Jose, Cal.
Machine for Punching and Shearing Metal.—Isaac S. Van Winkle, S. F., Cal.
Key-Hole Guards.—John La Blanc and Havier St. Pierre, S. F., Cal.
Stench Traps.—Charles W. Garland, S. F., Cal.
Baling Ropes.—George D. Jewett, Oakland, Cal.

Reissue.

Bed Lounges.—John Hoey, S. F., Cal.

Trademark.

Canned Fish.—H. S. Crocker & Co., S. F., Cal.

'Chickens Coming Home to Roost."

The Albany, N. Y., *Country Gentleman* publishes, in its editorial notes, the following:

"A California Transaction.—Of course we should not publish the following statement if the name of the writer were not well known to us: *Eds. Country Gentleman*:—Some time during 1874 you published several letters from a correspondent in California who had a good deal to say about alfalfa. He stated in one of his letters that pure seed could be obtained from a Col. Warren, 320 Clay street, San Francisco. In January, 1875, I wrote a letter of inquiry to the Colonel, asking the best way of shipment for 60 pounds alfalfa seed. I received a reply, signed Warren & Co., stating that for $12 in gold they would send me by mail, postage paid, 12 bags of four pounds each. I immediately mailed them a money order for the amount, and have not heard from Warren & Co. since. I wrote two letters of inquiry to them, but they did not see fit to reply. I received a statement from the postmaster of San Francisco that the order was presented by the firm mentioned, and paid.

"If Messrs. Warren & Co. will only return the amount of that money order, I won't write them another word about alfalfa, but invest it at once in red clover.—[P., Cleveland, Ohio."

And from another correspondent the following:

"To Come Down a Peg.—I have an account of another 'California transaction' to give you. Acting on the information concerning alfalfa referred to by your Cleveland (Ohio) correspondent, on page 169, January 12th, 1875, I forwarded to Col. Warren, editor of the *California Farmer*, a postoffice money order for $6, begging him to send me alfalfa seed by mail, according to the terms named by Mr. Armstrong, but in case the price had advanced, then to send the money's worth. Hearing nothing from Mr. Warren, February 21st I wrote him again. No answer being received, I wrote to make inquiries of Mr. Armstrong. He replied promptly, informing me he had visited the *Farmer* office in San Francisco; that they acknowledged the receipt of the money, asserted seed had been sent, but that by mistake a wrong address must have been made. However, they promised to send another package, and to compensate for the delay and error to add a valuable collection of Pacific coast seeds. Meantime I had ascertained from the San Francisco postmaster that the order had been paid on a date given, and from the postmaster of Champaign, Ill., that there was no other postoffice of that name in the territory of the United States. But I have heard nothing of Col. Warren to this day. Before making this transaction public I have waited for corroborative evidence, and in concluding my testimony beg to ask if such acts are not doubly infamous from the fact that they must inevitably annoy and embarass an upright and honorable man?"

Several complaints of a like character, from persons in this State, have been made to us, by well known and responsible persons, and if California and the publishers of papers devoted to the high calling of the farmer have got to rest under an obloquy from the villainous transactions of any one man or firm, it is about time to ventilate the matter. We should have published a few facts long ago, as an honest warning to the people, but for the advice of friends, who tell us that our motives would be impugned, and we had better not dirty our fingers with the subject.—*California Agriculturist for May.*

Caution to Purchasers of Fruit Driers.

As it may save trouble and loss, we shall be excused for cautioning the public against using any of the contrivances for drying fruit, etc., which embrace the essential feature of the Alden process, which process consists in "moving the fruit in currents of heated air, vertically, or in any other direction, said currents of air moving in the same direction with the articles to be treated." All devices using this principle or process are infringements, and will be prosecuted to the full extent of the law. We have large capital invested in the business, and propose to protect our interests and of those who purchased from us. Suits have been commenced by the Alden company in Michigan against such infringements, and we have no doubt but the Alden patents will be sustained. When a decision shall have been reached there, we shall move upon the works of all persons who have interfered with our rights in California, for damages. For the information of persons who assert that a process is not patentable, we quote from a recent decision of the U. S. Court: "It is not to be doubted that a process, or mode of operation, that amounts to a successful application of known things to a practical use, is patentable. But it was never the design of the patent law to grant a separate patent for every possible application of the same process. To do so would be a fraud upon inventors and the public alike." The capacity of our apparatus has been increased and the price reduced. We make no extra charge for royalty.

ALDEN FRUIT PRESERVING CO.,
OF CALIFORNIA.

June 12th, 1876.

At our request, Cragin & Co., of Philadelphia, Pa., have promised to send any of our readers gratis, (on receipt of 15 cents to pay postage,) a sample of Dobbins' Electric Soap, to try. Send at once.

A Southern Home for Sale.—See advertisement of Lee H. Utt, whose fine place in San Diego county is for sale.

New Feature in Life Insurance.

We are pleased to learn that a new plan of Life Insurance has been devised, by which all kinds of policies mature and the full amount of the insurance becomes payable to the insured during their lifetime. The Mutual Benefit Life Insurance Company, of Newark, N. J., one of the oldest and most substantial life institutions in the country, with assets of over $31,500,000, has originated and adopted a new plan, known as the "Accelerative Endowment Plan," which proposes that instead of using the dividends in reduction of the annual premium, the insured may at his discretion pay his premiums in full in cash and surrender his dividends to the company from year to year. In consideration of this surrender, the company will agree to pay the sum assured when the policy-holder shall have attained a certain age, or at his previous death, instead of at death only, thus enabling him to procure an Endowment Policy at the usual rates charged for policies payable at death only.

The plan is intended to meet the wants of those who wish protection for their dependents in case of premature death, and at the same time to make a wise provision for themselves in the event of surviving the productive period of life, and seems to commend itself to the insuring public, and more especially so when the very high standing and pure mutuality of the company is considered.

As an average case, we would state that under this plan a party insuring his life at 35 years of age would draw something over the full amount of his policy at the age of 60.

Parties desiring further information relative to the "Accelerative Endowment Plan" of the Mutual Benefit, can do so by corresponding with James Munsell, Jr., Agent of the Insured on the Pacific Coast, 224 Sansome street, San Francisco. An official statement of the company will be found in another column.

Collateral Loan and Savings Bank, N. E. Cor. Post & Kearny Sts., S. F.

The attention of all our readers is called to the objects for which this Association is incorporated, which are to loan money on collateral security, to receive money on deposit, and to transact a general banking business. The prime object, however, is to advance money on pledges of diamonds, watches, plate, furniture, etc., subject to the legal rates of interest—four per cent. per month. The Bank will also receive term deposits, of six and 12 months, subject to at least 30 days' notice before being withdrawn, and allow interest thereon at the rate of one and one-quarter per cent. per month, respectively. Such deposits will be loaned out only upon proper securities and pledges.

The Bank will also receive deposits subject to call or check, and upon such deposits no interest will be allowed.

Many larger banks of this description have for years been in successful operation in Paris, and in all the principal cities of Europe, and in the City of Mexico, under the patronage of their respective governments. The institutions in Paris loaned ont during the year 1873 the enormous sum of 54,000,000 francs, or about $10,800,000. More recently similar institutions, or banks, have been organized in Boston and New York City, under special charters from the States of Massachusetts and New York. No city in the United States offers such splendid inducements for an enterprise of this character as the city of San Francisco, where people are subject to peculiar and sudden reverses of fortune. The quantity of jewelry, plate, and articles of value which are pledged in this city yearly as collateral security, is enormous.

The bank will be managed upon strict business principles; at the same time to its safety and profit and with liberal dealing to its customers.

The stock of the Bank is 30,000 shares, of the par value of $50 each; which, until further notice, will be sold at the Bank at $10 per share. This will give a cash capital of $300,000, which, loaned out at four per cent. per month, will give a monthly return of $12,000, or $144,000 per year; less rent and expenses, say $14,000. will leave $130,000 per year to be divided among the shareholders.

The dividends will be declared monthly after the first two months' business.

The Directory of the Bank is composed of well known business men of San Francisco, and as such gives to its customers a guarantee of fair and liberal dealing.

Subscriptions for a large amount of Stock have already been received, and subscription books for a limited number of shares, at $10 per share, will, until further notice, be open at the Bank.

SOLON PATTEE, President.
F. S. CARTER, Secretary.

Fairs in 1876.*

The Centennial (World's Fair), Philadelphia, Pa., from May 10th to continue till autumn.
Mechanics' Institute Industrial Fair, S. F., beginning August 8th.
California State Fair, Sacramento, from Sept. 18th to Sept. 23d.
The Southern District Agricultural Society, from Oct. 5th to Oct. 14th.
Nevada State Fair, Reno, Nev., from Sept. 11th to Sept. 16th.
Sonoma and Marin District Fair, from Oct. 9th to Oct. 16th.
Oregon State Fair, Salem, from Oct. 9th to Oct. 16th.

"California Patron."—The first number of this eight-page monthly was issued May 17th, 1876. It is specially a Grange medium, exclusively under the editorial control of the Executive Committee and officers of the State Grange. Neatly printed, and well filled with official documents, Grange reports, and news of fraternal interest to Patrons. Subscription, 50 cents a year, in advance. Address, "California Patron," P. O. box 2361, or No. 40 California St., San Francisco. Sample copies, postpaid, five cents.

DEWEY & CO.,
United States and Foreign
Patent Agents,
No. 224 Sansome St.
SAN FRANCISCO.

Patents Obtained Promptly
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.
Examinations Ordered and Reported by Telegraph.
Examinations made of Assignments Recorded in Washington.
Interferences Prosecuted.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

Trade Price List on application.

My "Guide to the Vegetable and Flower Garden" will soon be ready, and will be sent free to all Customers. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

California Farmers' Mutual Fire Insurance Association.
No. 38 California Street, Grangers' Building.
CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR.....President
I. G. GARDNER.....Vice-President
G. P. KELLOGG.....Treasurer
A. W. THOMPSON.....Attorney
FERD. K. RULE.....Secretary

TRUSTEES:

J. D. BLANCHAR..... S. F. | I. C. STEELE.....San Mateo
G. P. KELLOGG.....Salinas | G. W. COLBY.....Butte Co
I. G. GARDNER.....S. F. | A. WOLF.....Stockton
CHAS. LAIRD.....Salinas | C. J. CRESSEY.....Oakland
URIAH WOOD..San Benito | J. C. MERRYFIELD..Dixon
A. B. NALLY....Santa Rosa | E. W. STEELE, S. L. Obispo
A. W. THOMPSON.....S. F. | O. S. ABBOTT.....Monterey
A. D. LOGAN.....Colusa | DR. T. FLINT.....Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

H. H. H.
HORSE MEDICINE,
D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Swoeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

P. of H.
GRANGERS, ATTENTION!!!
Grangers' and People's
IMMIGRANT BUREAU,
GRANGERS' BUILDING.
40 CALIFORNIA ST., - - - SAN FRANCISCO.

Farmers, send in your orders for help. We can send you all the good men you want at short notice, selected strictly according to your orders. Immigrants are arriving every day. All classes of help supplied, male and female. Address,

J. EARL,
General Immigrant Agent, appointed by the Committee on Immigration, Office No. 40 California street, at Grange Headquarters.

SEARCHER OF RECORDS
—FOR—
SONOMA COUNTY,
California,
F. G. NAGLE, - - - SANTA ROSA.

Subscribers are requested to examine the printed address on their papers. If mistakes occur *at any time*, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: jl 4 76; or 4jl76.

E. B. MOTT, Jr.,
IMPORTER AND DEALER IN
STOVES, METALS AND TINWARE
And Sole Agent for the Rathbone Range,
53 and 55 J Street, Sacramento.

JOHN LUTTRELL MURPHY,
Attorney and Counsellor at Law,
NO. 535 CLAY STREET,
SAN FRANCISCO.

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Lands and Homes for Sale.

A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
Pala, San Diego County, Cal.

FOR SALE,
In Lots to Suit,
5,000 Acres of the Lake Vineyard Land and Water Association.

Those lands are in the great fruit belt of Los Angeles County,—only six miles from the city—are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to Hon. B. D. WILSON or J. DE BARTH SHORT, at Lake Vineyard, who will take pleasure in showing the lands. Also, to Mayor BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE

FOR SALE—My Poultry Business, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. Price, $12,000, one-half cash. Or

I will sell a Half Interest and continue the business in partnership—the purchaser to reside on the place. Address,

M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

Fine Dairy Farm for Sale.

An undivided half interest in a fine Dairy Farm of 640 acres patented land, all inclosed. One hundred acres is good agricultural land, on which fine crops of timothy hay, potatoes, apples, etc., are raised. Balance affords fine grazing for 100 head of cattle and is also handsomely timbered. Plenty of fine running water at all seasons, and a valuable mill site and privilege are on the land. A good cash home market for all the produce of the place. Improvements, a comfortable house, three large barns, farming implements, wagons, etc. Also 40 head of good milch cows, 60 head of young cattle, horses, etc. There is also a large outside range of from 2,000 to 3,000 acres held under possessory title. Will be sold at a bargain. For particulars apply to

BERRY & CAPP, 418 Montg'ry St.,
Real Estate Agents and House Brokers

FOR SALE,

A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

For further particulars, apply to

W. R. STRONG & CO.,
, 8 and 10 J St., - - - - Sacramento,
—OR—
STRONG & WILLIAMSON,
418 and 420 Clay St., - - - San Francisco.

FOR SALE,

A well improved Farm of 160 acres, with or without the crop, one-quarter of a mile from Linden, 12 miles from Stockton. Apply to

JAMES DRACE, Linden, Cal.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

H. K. CUMMINGS, 1858. | H. H. HALSTON, 1876.
HENRY K. CUMMINGS & CO.,
Wholesale Fruit and Produce Commission House,
ESTABLISHED 1858.
No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 14th, 1876.

Trade in the great staple is still dull and there is little to record. There is still, of course, almost any quantity of conjecture, but actual values are yet to be determined. The first new wheat came upon the market during the week, and was reported sold at $1.75 per ctl. It was a carload from Bantas. The *Bulletin* gives the following dates of arrival of new Wheat for a series of years:

Years.	Arrived.	Prices.
1859	July 14	$1 90@$2 00
1860	July 3	1 50@ 1 55
1861	July 24	1 50@ 1 62
1862	July 11	1 62@ 1 65
1863	June 25	1 50@ 1 60
1864	July 9	2 80@ 2 95
1865	June 12	2 20@ 2 25
1866	June 25	1 50@ 1 60
1867	June 17	1 65@ 1 70
1868	June 18	1 90@ 2 00
1869	June 15	1 40@ 1 45
1870	June 9	1 70@ 1 80
1871	June 23	2 30@ 2 37
1872	June 10	1 80@ 1 85
1873	June 7 (at Vallejo)	1 75@ 1 80
1874	June 11	1 65@ 1 67
1875	June 2 (at Vallejo)	1 65@ 1 67
1876	June 9 (at Oakland)	1 75

Prices for new Wheat are still in much doubt. The following are given as reported chiefly in estimates: For new crop, June delivery, $1.60@1.65 is asked; July, $1.55@1.62½; August, $1.55@1.60 per ctl.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.		Club.	
Thursday	9s 10d@10s	2d	10s 2d@10s	6d
Friday	9s 10d@10s	2d	10s 2d@10s	6d
Saturday	9s 10d@10s	2d	10s 2d@10s	6d
Monday	9s 10d@10s	2d	10s 2d@10s	6d
Tuesday	9s 10d@10s	2d	10s 2d@10s	6d
Wednesday	9s 11d@10s	2d	10s 4d@10s	6d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 3d@12s 6d	12s 6d@12s 10d
1875	8s 11d@ 9s 2d	9s — @ 9s 6d
1876	9s 11d@10s 2d	10s 4d @10s 6d

The Foreign Review.

Under date of June 12th, the review of the *Mark Lane Express* is telegraphed as follows:

"Reports of the present condition of the crops are hopeful. The weather duriog the past week has been fine, and in every way favorable to agricultural operations. The appearance of the Wheat plant is generally healthy. Under the influence of the improved appearance of the country and considerably increased foreign supplies, our local trade has assumed a quieter tone. Arrivals of Indian Wheat have been large. Unless some new aspect of the Eastern question, or an unfavorable change in the weather should give a spur to speculation, it is probable trade will continue calm and lifeless. Recent favorable winds have brought into ports of call a fair number of cargoes, which are firmly held, especially as political matters remain in such an uncertain state, and the possibility of war, although unacknowledged by many, still looks up in the background."

Freights and Charters.

One of the most notable topics of the week in freights is the description, by the *Evening Post*, of a ring to monopolize the tonnage. We allude to this matter elsewhere. The freight market during the week has been dull and little accomplished, although many ships are reported taken to arrive. Rates are held private. The announcement is made that the Central Pacific railroad has reduced its rate on Wheat from Stockton to San Francisco to $1.50 per ton.

The Stock of Old Wheat.

The *Alta* says: The receipts of old Wheat at this port have dwindled down to small quantities, and as more or less new will hereafter drop in it would be well at this time to consider how much of the old crop yet remains in the State. To arrive at a satisfactory result is no easy matter, as, at the best, there has to be in the first place an assumed, though not strictly accurate, point from which to start, and then the home consumption has also to be guessed at. However, an approximation can be given which will doubtless come near enough for present purposes. The stock on hand April 1st being given at 1,214,759 centals, and the home consumption per month being placed at 250,000 centals, we have the following result:

	Centals.
Stock on hand, April 1st	1,214,759
Exports, April 1st to date	492,137
Consumption, same time	600,000
	1,092,137
Stock on hand, this date	125,622

That the foregoing account of stock on hand is unsatisfactory we need not attempt to show, but we have given all that is called for in accordance with the best information that can be had. It is undoubtedly true that the San Francisco Produce Exchange underestimated the stock on hand April 1st, though at the time many were heard to say the reverse. We have seen that vessels of late have had great difficulty in completing cargoes, and needed supplies for millers have also been very backward. This has of course strengthened the belief that the stock in the interior has become greatly reduced, though probably not to so low a point as the foregoing figures would seem to indicate.

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week May 24.	Week May 31	Week June 7.	Week June 14.
Flour, quarter sacks	29,349	28,851	83,107	44,761
Wheat, centals	25,63[illegible]	103,858	29,158	39,273
Barley, centals	25,897	24,216	27,156	29,407
Beans, sacks	1,201	1,105	296	1,685
Corn, centals	3 578	4,829	3 713	7,684
Oats, centals	3,342	679	3,634	4,039
Potatoes, sacks	11,12[illegible]	8,449	11,713	13,357
Onions, sacks	779	1,062	766	1 037
Wool, bales	7,260	5,131	4,022	3,213
Hops, bales	67	10[illegible]	201	
Hay, bales	1,321	845	1,527	2,002

Bags—There have been receipts of about two million Wheat Bags from Calcutta and by the Isthmus. It cannot be said that any influence is exerted by the receipts, except a better disposition to sell reported from some holders. There are now two vessels overdue from Calcutta. It is reported that wholesale lots of standard Wheat Bags can now be made at 13¼c, while 13¾ and 14c are quoted as jobbing rates.

Barley—Barley is weak and lower. A lot of 1,300 new Barley came from Los Angeles on Wednesday and sold for $1.02½. Other sales during the week have been as follows: 800 sks good new, $1.02½@1.05, part silver; 100 do new Coast, $1.02½, half silver; 125 do do, $1, half silver; 1,400 sks choice, to a brewer, $1.20, usual term; 400 do Brewing, $1.15, half silver; 400 do new, $1.05, all silver; 1,000 do old Feed, $1.05, gold; 1,700 sks old Coast Feed, $1.12½; 500 do new do, $1; 1,500 do do, $1.02½, half silver; 1,340 ctls old Bay Feed, $1.12½, half silver; 200 ctls new Feed, $1.05, half silver; 1,000 ctls old Bay Feed, $1.05, gold; 200 ctls new Feed, $1.07½; 300 do do, $1.02½ per ctl.

Beans—There is little trade in Beans and prices are nominal.

Corn—There has been quite a brisk trade in corn at former prices. We note sales of 485 sks large Yellow, $1 15, one-fourth silver; 2 0 do small Bay, $1.20, half silver; 312 sks small Bay, $1.20, gold; 175 sks large White, $1.20; 50 do do Yellow, $1.17½, both half silver; 95 do inferior Yellow, $1.10 ₱ ctl, gold; 300 sks good large Yellow, $1.11, half silver; 1,000 do large Yellow, $1.15 ₱ ctl, half silver; 300 sks small Yellow, $1 20 ₱ ctl.

Dairy Produce—Butter and Cheese are plentiful at former prices.

Eggs—Eggs are unchanged.

Feed—New Hay is abundant. We note sales: 18 tons new stock, $8. 36 do new Wild Oat, $10; 40 do good new Wild Oat and Wheat, $12; 75 tons fair new, $10 50; 36 tons stock, $8.75; 36 do fair Barley and Oat, $10; 30 do Wild Oat, $12; 38 do Wheat and Oat, $12.50; 34 tons new Clover, $10; 25 do do, $10.50; 24 tons ordinary stock, $8.50; 28 do fair Wheat, $12; 41 do good Wheat and Oat, $12 50; old Wheat sells up to $16 ₱ ton; Bran is quotable at $18 ₱ ton. We note a sale of 287½ sks at $17 ₱ ton, gold.

Fruit—Fruit is making a fine display in the market. Peaches are becoming abundant. Nearly all Fruits are cheaper, as shown in our tables of prices below.

Fish—Salmon rises again. Other Fish are plenty and low.

Hops—There is reported to be a good stock of Hops on hand and little sale. Prices are unchanged. The New York market is reported by Emmet Wells for the week ending June 2d as follows:

"There is very little to say of the market this week. The demand both for export and consumption has dwindled down to almost nothing, and our quotations continue entirely nominal. The prospect of the incoming crop never was more encouraging for the time of year. We cannot say as much for England. The reports from that country are rather conflicting, though on the whole are considered more encouraging than last year this time. Advices from Continental Europe state that the plant in the low lands is looking very weakly."

Oats—The supply of Oats is large, and the demand is moderate. The price is reduced. We note sales: 100 sks Humboldt, $2.15, silver; 100 sks good Feed, $2 12½, gold; 100 sks Humboldt, $2, gold, ₱ ctl.

Onions—New Onions are plenty and cheaper. We note sales of 90 sks new Red at 85@87½c ₱ ctl.

Potatoes—Old Potatoes are still selling at almost any price, and may be quoted very dull at 50c@$1.00 ₱ ctl. Sales of 50 sks good Tomales, 62½c; 160 do new Early Rose, $1.50; 100 sks Petalumas, 50c; 275 do Tomales, 55@60c; 300 do new Early Rose, $1.50; 100 sks fair old Petaluma, 50c; 275 do good Tomales, 55@60c. The general range for new Potatoes is $1.25@$1.75 ₱ ctl.

Provisions—Provisions are as lost quoted. Prices below.

Poultry—The decline in poultry continues as noted in our tables of quotations.

Rye—Old Rye is scarce. We noto a sale of 175 sks at $2.30; 100 sks fair old, at $2.15. New Rye is at hand, the last sales being reported at $2.12½.

Vegetables—Vegetables are much cheaper. Summer Squash has become a drug, and can be bought today for 25c per box. Tomatoes are 9c per lb to-day.

Wheat—In Wheat there has been a little improvement in milling prices. We note sales of old Wheat as follows: 500 ctls good Coast Shipping at $1.65; 850 ctls Shipping at $1.70; 600 sks Milling, $1.66½; 1,000 do fair do, $1.67½; 900 sks choice Australia, to a miller, $1.85; 680 do Superfino Milling, $1.70; 500 sks good Coast Shipping, $1.65, gold; 850 ctls Shipping at $1.70. In new Wheat there are reported sales for June delivery at $1.62½. There is also reported a purchase of 20,000 July delivery at $1 57½.

Wool—There is no notable change in the local Wool trade. Northern continues to come in and brings 17@20c, with choice lots reaching 22c. The Eastern markets are telegraphed as follows:

NEW YORK, June 10th.—The low prices which have been the quotable feature of the Wool market for some months have finally been the means of inducing an lucrased demand for most kinds, domestic California, however, having the preference. This improvement is not expected by any one to be of permanent character, for the general features of the market are the same as they have been for months. Sales of the week: 265,000 lbs new spring California, 15@23c; 164 bales fall, 10½@12½c; 194,000 lbs Texas, 14@18c for Western, and 17@23c for Eastern; 1,000 lbs Georgia, 26½c: 5,000 lbs sheep fleeces, 20@22c, and 37 bales Cape for export to Canada, 67 do Rio Grande, previous to arrival, 49,000 lbs fall California, 120 bales Oregon, 44 bags super pulled, 30 do lambs' do, 50 do combing do, 32,000 lbs X and above Ohio fleeces, and 1,000 lbs do combing and deleine, on private terms.

BOSTON, June 10th.—The market for Wool has not varied during the past week. Arrivals of new spring California continue large, and the demand is principally confined to this description. Sales of California spring during the past week have been 957,000 lbs at 17@28c, including some fancy lots at 26½@28c; but the sales have been principally confined in the range of 20@25c; fall California, 18½c. Receivers are full sellers at the prices, as there is a feeling that supplies can be placed to better advantage now than later in the season.

GENERAL MERCHANDISE.

WHOLESALE.]

WEDNESDAY M., June 14, 1876.

BAGS.

Eng. Stand Wbt..	13½@14
Neville & Co's...	
Hend Sewed....	13¾@14
24x36	— @—
24x40	— @—
Machine do 24x40	— @15½
" " 23x40	11½ @—
" " 22x40	14 @—
" " 22x36	13 @13½
Flour Sacks ⅛s ..	9¾@11
" " ¼s	6 @ 7
" " ½s	4½@5 5
Hessian 60-in	12¼@14½
do 45-in	— @10¼
do 40-in	8½@9
Wool Sacks,3½ lbs.	45 @50
do 4 "	50 @52½
Stand. Gunnies	— @15
single seam do..	— @—
Bean Bags	7½@ 8

CANNED GOODS.

Asst'd Pie Fruits in 2¾ ℔ cans.	2 75 @ 3 00
do Table do	3 75 @ 4 25
Jams & Jellies	1 25 @—
Pickles ¼ gl..	— @ 3 50
Sardines,qr boal	65 @ 1 90
do hf boxes	3 00 @—

COAL—Jobbing.

Australian,₱ ton	— @10 50
Coos Bay	8 00 @10 00
Bellingham Bay	— @ 8 50
Seattle	10 00 @—
Cumberl'd	18 00@22 00
Mt. Diablo	6 25 @8 25
Lehigh	— @22 00
Liverpool	10 00 @11 00
West Hartley	— @14 00
Scotch	9 00 @11 00
Scranton	13 00 @16 00
Vancouver's Isl.	10 50 @ 2 00
Charcoal,₱ sk	75 @—
Coke, ₱ bbl	— @ 60

COFFEE.

Sandwich Island	— @ 21½
Costa Rica per ℔	22½@—
Guatemala	— @ 22½
Java	— @ 31
Manilla	— @ 21½
Ground in cs	25 @—
Onicorv	27 @—

FISH.

Sac. Dry Cod,new	4 @ 4½
cases	6 @ 7
do boneless	8½@ 10
Eastern Cod	8 @ 8½
Salmon in bbls	7 25 @—
do ½ bbls	3 75 @4 00
do 2℔ cans	2 50 @—
do 1℔ cans	1 35 @1 40
do Col. R. ½s	5 00 @5 50
Pick. Cod, bbls.	2 00 @—
do ½ bbls	11 00 @—
Mack'l,No.1,⅛bls	11 00 @—
" Extra	— @12 00
" in kits	1 90 @2 25
" Fa mess	3 50 @4 00
" Ba mess,¼bbs	— @12 00
Pio'd Herr'g, bx.	2 00 @ 3 50
Bos. Sm'k'd Her'g	40 @ 50

LIME, ETC.

Lime, S'la Cruz, ₱ bbl	2 00@ 2 25
Cement, Rosendale, do	2 75@ 3 50
do Portland do	4 75@ 5 50
Plaster, Golden Gate Mills	3 00@ 3 25
Land Plaster, ₱ ton	10 00@12 50

MISCELLANEOUS.

Pulu	@ 7½

NAILS.

Assorted size, keg	3 75 @4 00

OILS.

Pacific Glue Co	
Neat F't No. 1	1 00 @ 90
Pure	— @—
Castor Oil, No. 1	— @1 15
Baker's A A	— @1 15
Cocoanut	52 @ 55
Olive Plagniol	5 50 @5 75
do Possel	4 75 @5 00
Palm ℔	9 @—
Linseed, raw	— @ 70
do boiled	— @ 75
China nut in cs.	65 @ —
Sperm, crude	60 @1 85
do bleached	1 90 @2 25
Coast Whales	47½@ 50
Polar, refined	— @ 50
Lard	— @1 20
Cleophine	— @ 28
Devoe's Brill't	25 @ 27
Long Island	— @ 25
Eureka	26 @ 27
Devoe's Petrn'm	25 @ 27½
Barrel kerosene	23 @ 25
Olive	— @3 50
Downer Kerose'e	— @ 37½
Elaine	37½@—
Gas Light Oil	23 @ 25

PAINTS.

Pure White Lead	9¾ @10¼
Whiting	— @ 1¾
Putty	4 @ 5
Chalk	— @ 1½
Paris White	— @ 2½
Oobre	— @ 3½
Venetian Red	— @ 3½
Rod Lead	10 @ 11
Litharge	10 @ 11
Eng. Vermillion	—@1 25
Averill Chemical Paint, per gal.	
White & tints	2 00 @2 40
Green, Blue & Ch Yellow	3 00 @3 50
Light Red	3 00 @3 50
Metallic Roof	1 30 @1 60

RICE.

China No. 1	5½@ 5½
Hawaiian, ₱ ℔	7½@ 7¾
Carolina, ₱ ℔	10 @

SALT.

Cal. Bay,per ton	10 00@14 00
do Common	6 00@ 7 00
Carmen Island	12 00@15 00
Liverpool fine	22 50@25 00

SOAP.

Castile ₱ ℔	10 @ 11½
Common brands	4½@ 6
Fancy do	7 @ 9

CANDLES.

Graot's	16½@ 17
Mitchell's	20 @ 22

SPICES.

Cloves ₱ ℔	45 @ 47½
Cassia	23½@ 26½
Citron	28 @ 30
Nutmegs	95 @ 97½
Whole Pepper	14½ @ 14½
Pimento	16 @ 17½
Gr'nd Allsp'r pr dz	— @1 12
do Cassia do	— @1 50
do Cloves do	— @1 50
do Mustard do	— @1 20
do Ginger do	— @1 00
do Pepper do	— @1 00
do Mace do	— @2 00
Bowen's Pure Ground ₱ ℔	— @ 50

SUGAR, ETC.

Cal. Cube per ℔	— @ 12½
Obrole & crushed	— @ 12½
Powdered	— @ 12½
Fine crushed	— @ 12
Granulated	— @ 11½
Golden C	— @ 10½
Hawaiian	10 @ 11
Cal. Syrup in kgs	— @ 62½
Hawaiian Molasses	25 @ 27½

TEA.

Oolong,Canton,℔	19 @ 25
do Amoy	28 @ 50
do Formosa	40 @ 80
Imperial,Canton	25 @ 40
do Pingsuey	45 @ 80
do Moyune	60 @1 00
Gunpo'der,Cant.	75 @1 00
do Pingsuey	50 @ 90
do Moyune	65 @1 25
Y'ng Hy.,Caoton	28 @ 40
do Pingsuey	40 @ 70
do Moyune	65 @ 85
Japan, ½ chests, bulk	30 @ 75
Jepan,lacqnored bxs,4½ and 5 lbs	45 @ 67
Japan do,3 ℔ bas	45 @ 90
do pl'n bx,4½ ℔	35 @ 65
do ½&1 ℔ paper	30 @ 55

TURPENTINE.

Eastern	51½@55

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., June 14, 1876.

BEANS.

Bayo, ₱ ctl	4 50@5 00
Butter	1 9[illegible]@2 25
Pea	1 92½@2 00
Pink	2 50@3 00
Sm'l white	1 60@1 90
Lima	1 90 @2 00

BROOM CORN.

Common, ₱ ℔	2 @ 3
Choice, do	4 @ 5

COTTON.

Cotton, ₱ ℔	15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.

Cal. Fresh Roll ₱ ℔	22½@ 28
Point Reyes	— @ 30
Firkin	22 @ 26
W'st'n Reserve	16 @ 20
New York	— @—

CHEESE.

Obeese.Cal., ℔	10 @ 15
do Old	— @—
Eastern	15 @ 17

EGGS

Cal. fresh ₱ doz	26 @27½
Ducks'	— @ 24
Oregon	— @22½
Eastern	21 @ 23

FEED.

Bran, per ton	— @18 00
Corn Meal	27 50 @28 00
Hay	8 00 @15 00
Middlings	24 00 @—
Oil cake meal	— @37 50
Straw, ₱ bale	50 @ 60

FLOUR.

Extra ₱ bbl	5 50 @5 75
Superfine	4 50 @4 75
Graham, ₱ bbl	5 50 @—

FRESH MEAT.

Beef 1st quality ℔	5½@ 6
Second do	3½@ 4
Third do	2 @ 3
Spring Lamb	4½@ 5
Mutton	2½@ 3
Pork, undressed	6½@ 7
do. dressed	9½@ 10
Veal	5 @ 5½
Milk Calves	6 @ 6½

GRAIN, ETC.

Barley,feed ctl	1 00 @1 05
do new	97½@1 00
do brewing	1 17½@—
Chevalier	1 25 @1 35
Corn, White	1 15 @1 20
do Yellow	1 15 @1 20
Oats	2 00 @2 50
Milling	— @2 75
Rye	— @2 50
Wheat shipping	1 67½@1 70
do milling	1 70 @1 80

HIDES.

Hides, dry	10 @ 12
do wet salted	6 @ 6½

HONEY, ETC.

Beeswax,per lb	25 @ 27½
Honey in comb	14½@ 15
do Strained	8 @ 10

HOPS.

New crop	10 @ 13

NUTS—Jobbing.

Alm'ds n'rd sh't ℔	8 @ 10
do, soft sh't	18 @ 20
Brazil do	14 @ 16
Cal. Walnuts	12 @ 14
Chile Walnuts	11 @ 12½
Peanuts per lb	9 @ 10
Filberts	15 @ 16
Pecanuts	17 @ 18

ONIONS.

Unico City ctl	— @—
Stockton	— @—
New Red	75 @1 00
Silver Skins	1 00@—

POTATOES.

Petaluma,₱ ctl	75 @1 00
Salt Lake	— @—
Humboldt	75 @1 00
Early Rose	1 00 @1 50
Sweet	— @—
New	1 25@ 1 75

POULTRY & GAME.

Hens, per dz	7 00@ 8 00
Roosters	7 00@ 9 00
Broilers	2 50 @ 4 00
Ducks, tame,dz	5 00 @6 00
do Mallard	— @5 00
do Canvass	— @5 00
Geese, per pair	1 50 @1 75
Wild Gray	3 00 @4 00
White	1 50 @2 00
Turkeys, Live, ℔	15 @ 20
do Dressed	20 @ 22
Quail, per doz	— @—
Snipe, Eng., doz.	2 00@2 50
Doves, per dozen	50 @ 57
Rabbits	1 00 @1 00
Hare, per doz	1 50 @2 10

PROVISIONS.

Cal. Bacon, L's ℔	15½@ 16
do Medium	14½@ 15
do Heavy	— @15½
Lard	11 @ 16½
Cal. Smoked Beef	9 @ 10
Eastern do	— @ 10
East'n Shoulds	— @ 10
Hams, Cal	14 @ 14½
do Armour	14½@ 15
do Worster's	16½@ 17
do Dupee's	16 @ 16½
do Davis' Sugar	16½@ 17

SEEDS.

Alfalfa, Chile ℔	8 @ 10
do California	12 @ 13
Denary	18 @ 20
Clover Red	— @ 22
do White	50 @ 55
Cotton	6 @ 10
Flaxseed	— @ 3½
Hemp	12½@ —
Italian Rye Grass	25 @ 30
Perennial do	20 @ 30
Millet	10 @ 12
Mustard, white	3 @ 3½
do, Brown	3 @ 3½
Rape	7 @ 9
Ky. Blue Grass	30 @ —
do 2d quality	20 @ —
Sweet V Grass	— @ 75
Orchard do	30 @ 35
Red Top do	— @ 25
Hungarian do	8 @ 12
Lawn do	30 @ —
Mesquit do	20 @ 25
Timothy	11 @ 13

TALLOW.

Crude, ₱ ℔	6½@ 7
Refined	8½@ 9

WOOL, ETC.

SPRING—

Seedy, ₱ ℔	11 @ 12½
Choice long free	17 @ 18
do Northern	21 @ 24
do short	13 @ 16½
Burry	10 @ 11
Oregon	— @—

S. F. RETAIL MARKET RATES.

WEDNESDAY M., June 14, 1876.

POULTRY, GAME.

Obiokens	50 @1 00
Eggs, Hens	35 @—
do Ducks'	— @ 30
Turkeys, ₱ ℔	25 @—
Ducks, each	1 00 @—
Geese,wild, pair	— @—
Tame, ₱ pair	2 50 @3 00
Snipe, ₱ doz	— @—
do English	— @3 00
Quail, per dozen	— @—
Prairie Ch'k's,pr	— @—
Hares, each	25 @ 35
Rabbits, pair	37 @ 50
Squirrels each	10 @ 15
Hams, Cal. ₱ ℔	16 @ 20

FISH, MEATS, ETC.

Flounder, ₱ ℔	20 @ 25
Salmon, ₱ ℔	— @ 5
Smoked	— @ 10

FRUITS, VEGETABLES.

Apples, pr lb	8 @ 10
Pears, per lb	— @ 8
Apricots, ₱ ℔	— @—
Peaches, ₱ ℔	— @ 25
Plums	— @—
Pine Apples,each	75 @1 00
Grapes	— @—
Bananas, ₱ doz	75 @1 00
Muskmelons	— @—
Watermelons	— @—
Blackberries	— @ 35
Cal. Walnuts, ℔	20 @ 30
Cranber'es, Org.	— @ 30
do Eastern qt	— @ 25
Huckleberries	— @—
Strawberries, ℔	15 @ 20
Raspberries, ℔	— @ 25
Gooseberries	5 @ 12
Currants	10 @—
Oherries, ₱ ℔	10 @ 30
Nectarines	— @—
Pomegranates	— @—
Oranges, ₱ doz	50 @1 25
Lemons	50 @ 75
Limes, per dor	— @ 25
Figs, dried Cal	12½@ 15
Figs, Smyrna, ℔	25 @ 35
Asparagus, ₱ ℔	6 @ 8
Artichokes, doz	25 @—
do Jerusalem	— @—
Beets, ₱ doz	20 @ 2
Potatoes, ₱ ℔	2 @ 3
Potatoes,sweet	— @ 6
Broccoli, each	10 @ 15
Cod Fish, ₱ ℔	12 @ 15
Lake Big. Trout	— @ 35
Beef, tend, ₱ ℔	20 @ 25
Corned, ₱ ℔	8 @ 10
Smoked, ₱ ℔	— @ 15
Porterllouse St'k	20 @ 25
Sirloin do	15 @ 18
Round do	10 @ 12
Pork, rib, sto	12½ @ 15
Chops, do, ₱ ℔	15 @ 20
Veal, ₱ ℔	12½ @ 15
Outlet, do	15 @ 20
Mutton-chops, ₱ ℔	6 @ 8
Leg Mutton, ₱ ℔	10 @ 15
Lamb, ₱ ℔	12 @ 15
Antelope	— @—
Tongues, beef	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, ₱ ℔	12½@—
Bacon, Cal., ₱ ℔	16 @ 20

FRUITS, VEGETABLES.

Cauliflower	10 @ 15
Green Peas ₱ ℔	3 @ 5
Cabbage, per hd	10 @—
Oyster Plant, bn	— @—
Carrots, ₱ doz	— @ 25
Celery, ₱ dz	75 @1 00
Cress, ₱ doz bun	20 @ 25
Onions	3 @ 4
Turnips, ₱ doz bunches	— @ 25
Brussels Sprouts	— @—
Esohalots	— @ 35
Dried Herbs,doz	40 @ 50
Garlic, ₱ ℔	10 @—
Green Corn, doz	50 @—
Lettuce, ₱ doz	25 @ 35
Mint, ₱ bunch	— @ 12½
Mushrooms, ₱ ℔	— @—
Horse radish, ₱ ℔	15 @ 20
Okra, dried, ₱ ℔	— @—
Pumpkins, ₱ ℔	5 @ 6
Parsnips, doz	— @ 25
Parsley	12½@—
Pickles, fresh, ₱ ℔	— @—
Radishes, doz	20 @ 25
Sage	— @ 25
Summer Squash	3 @ 5
Marrowlat, do	5 @—
Hubbard, do	— @—
Tomatoes ₱ ℔	12½@—
Mangoes, ₱ doz	— @—
Sprouts ₱ bskt	— @ 12½
Rhubarb	4 @ 6
Green Chilies	— @ 25

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., June 14, 1876.

FRUIT MARKET.

Oranges Mex. ₱ M	— @— —
Tahiti, do	20 00@25 00
Cal. do	— @— —
Limes, Mexican, ₱ M	10 00@— —
Malaga Lemons, ₱ bx	— @— —
Cal. ₱ 100	1 50@ 2 00
do Sicily ₱ b'x	9 00@10 00
Bananas, ₱ bnch	2 50@ 4 00
Cocoanuts, ₱ 100	8 00 @ 7 00
Pineapples, ₱ doz	— @—
Apples, ₱ box	75 @2 00
do Choice	— @—
Apricots, ₱ ℔	10 @ 25
Blackberries	18 @ 25
Cherries, ₱ lb	6 @ 10
Tartarian	15 @ 25
Cherry Plums	7 @ 10
Figs	— @—
Gooseberries	5 @—
Huckleberries	— @—
Strawber's ₱ case	10 00 @15 00
Pomgranates	— @—
Raspberries	12½@ 20
Currants, ₱ case	3 00@3 50
Cranberries ₱ bol.	13 00@14 00
Peaches, ₱ ℔	12½@ 15
Pears, ₱ box	75 @1 25
do Choice	— @—
Crab apples, ₱ bx	— @—

DRIED FRUIT.

Apples, ₱ ℔	9 @12½
Pears, ₱ ℔	8 @13
Peaches, ₱ ℔	12 @12½
Apricots, ₱ ℔	14 @15
Beef, tend, ₱ ℔	20 @25
Corned, ₱ ℔	8 @10
Smoked, ₱ ℔	— @15
Porterllouse St'k	20 @25
Sirloin do	15 @18
Round do	10 @12
Pork, rib, sto	12½@15
Chops, do, ₱ ℔	15 @20
Veal, ₱ ℔	12½@15
Outlet, do	15 @20
Mutton-chops, ₱ ℔	6 @8
Leg Mutton, ₱ ℔	10 @15
Lamb, ₱ ℔	12 @15
Antelope	— @—
Tongues, beef	75 @1 00
do, do, smoked	75 @1 00
Tongues, pig, ₱ ℔	12½@—
Bacon, Cal., ₱ ℔	16 @20

VEGETABLES.

Asparagus ₱ box	1 25@1 50
Beets ₱ ctl	— @—
Cabbage, ₱ 100 lbs	1 00@1 25
Carrots, ₱ 100 lbs	75@1 00
Cauliflower, doz	50@ 75
Celery, doz	50@—
Garlic, ₱ ℔	3½@ 5
Green Peas ₱ ℔	2½@ 3
Green Corn ₱ doz	15@20
Sam'Squash ₱ box	25@1 00
Marrow'lat Squash, do	@—
Artichokes, ₱ doz	@—
String Beans, ₱ ℔	3@ 4
Lima Beans	@—
Parsnips	@—
Shell Beans	@—
Peppers, green, bx	@—
Okra	@—
Cucumbers, ₱ doz	25@ 35
Tomatoes, ₱ ℔	@ 9
Egg Plant, bx	@—
Rhubarb	2½@ 3
Lettuce	@—
Turnips, pr ctl	75@—

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by SUTRO & Co.]

SAN FRANCISCO, June 14, 3 P. M.

LEGAL TENDERS in S. F., 11 A. M., 89¼ to 89½. Silver, 4 to 5 per cent. discount.

GOLD in N. Y. 112½.

GOLD BARS, 900 to 910. SILVER BARS, 12 and 20 per cent. discount.

EXCHANGE on N. Y., 50-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼. Paris, five francs per dollar; Mexican dollars, 9 per cent. discount.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Evergreen Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camellias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS, Santa Barbara, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalognes, 25c.

Seedsmen.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS CO., 609 Sacramento St., S. F. Send for Circular.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

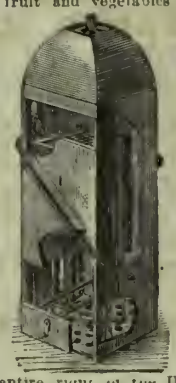
T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

Agricultural Articles.

J. W. CASSIDY'S

FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.



We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.

Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

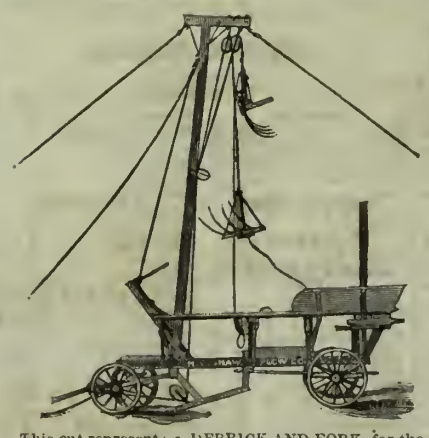
The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON, Stockton, Cal.

TABER'S

IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL,

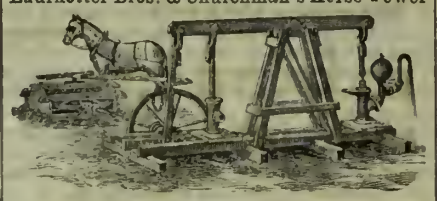
Will receive Prompt Attention.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

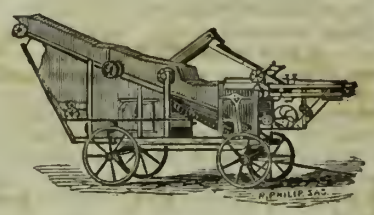
Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

JACKSON'S

PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

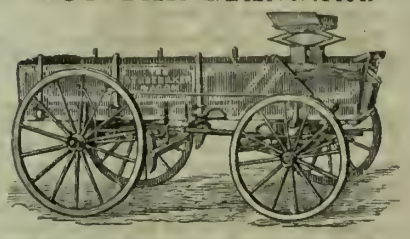
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from Light Trotting Buggies to Six-Horse Team Wagons.

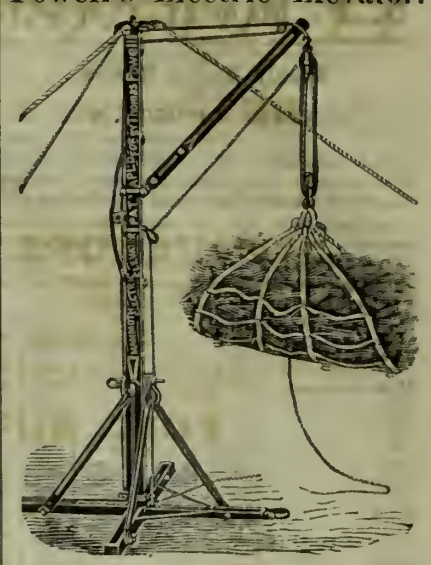
E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal Established in 1858. Send for Circular and Price-list

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack, only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. C. SHAW PLOW CO., Stockton, Cal.

Marster's Self Regulating FEEDER

For Threshing Machines,

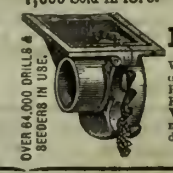
Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

E. J. MARSTERS,

Stockton, Cal.

Works, Corner California and Sonora Streets.

7,000 Sold in 1875. NEW FORCE FEED FOR Buckeye Grain Drill.



Will sow any desired quantity without change of gear. Will sow Wheat, Rye, Oats, Barley, Beans, Peas, Corn, Flaxseed, &c. Just What You Want. It beats any Force Feed ever made. Send for a circular, or ask your dealer to show you the Buckeye.

P. P. MAST & CO., Springfield, O.

COHANSEY GLASS TOP FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.

Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a.

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Ca

CENTENNIAL.

5 Beautiful Views, size 8x4 inches each, of THE CENTENNIAL BUILDINGS at Philadelphia, post-paid for 25 cts; 5 sets for $1. Agents Wanted.

PHELPS BROS. & CO.,

125 Dearborn st., - - - CHICAGO

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,

San Luis Obispo.

HARVESTING MACHINERY,

MOWERS—Wood's Eagle, Peerless & Clipper.

REAPERS—RUSSELL'S PEERLESS.

HEADERS—Haines' Genuine Single Gear.

SEPARATORS AND POWERS.

Chicago Pitts, with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

Steam Engines.

ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

LYMAN'S SELF-FEEDER.

Invented by a practical thresher. Best in the market. Price only $150. It surpasses all others in durability and simplicity of construction. Can be applied to any Separator in a few hours, and taken off in 15 minutes. It is guaranteed to give satisfaction or no pay.

FULL SUPPLY OF "EXTRAS" FOR ALL OUR MACHINES.

Linforth, Kellogg & Co.,

Nos. 3 and 5 Front St., San Francisco, Cal.

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard, - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

One Pound "Swan & Co's. Patent" Strawberry Baskets, $10. One Pound Tin Top Strawberry Baskets, $10. One Pound Square Strawberry Baskets in Shook, $5. One Pound "Swan & Co's. Patent" Raspberry Baskets, $10. One Pound Tin Top Raspberry Baskets, $10.

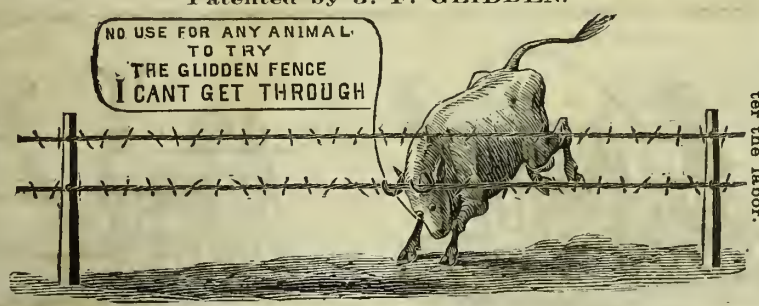
WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.

It makes the most durable, safe, and reliable fence in the world against stock of all ages.



About one-half the cost of any other good fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can he put up for one-quarter the labor of any other feuce. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from hetween the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,
K and 10th Streets, Sacramento.

General Agents for the Coast.

GOLD MEDAL

CALIFORNIA FRUIT DRIER

IS NOW OFFERED TO THE FRUIT GROWERS

—AS THE—

Cheapest and Best Method of Drying and Preserving Fruits and Vegetables.

WE ARE MANUFACTURING ALL SIZES OF THE DRIERS, TO SUIT THE WANTS OF THE FRUIT GROWERS.

Send for Circulars and Price Lists.

The Gold Medal California Fruit Drier

IS THE ONLY ONE THAT WILL DRY LARGE QUANTITIES OF FRUIT AND PUT IT ON THE MARKET AT A NOMINAL COST.

Sacramento Plow Manufacturing Company, Sacramento City, Cal.

THE CHAMPION MILK PANS.

Space Occupied in Room, Depth, Capacity, Etc.

No.	Space each set occupies.	Cap'y of each Pan.*	Dpth
0	5 ft 6 in. long 3 " wide	12 gal'ns.	6 in.
1	6 ft 10 in l'ng 3 " 10 " wide	18 gal'ns.	6 in.
2	7 ft 8 in. l'ng 4 " 2 " wide	25 gal'ns.	6½ in.
3	8 ft 7 in. l'ng 4 " 8 " wide	35 gal'ns.	7 in.
4	9 ft 8 in. l'ng 4 " 11 " wide	45 gal'ns	7½ in.
5	9 ft 11 in. l'ng 5 " 4 " wide	55 gal'ns.	8 in.
6	9 ft 11 in. l'ng 5 " 4 " wide	65 gal'ns.	9½ in.

*Four pans in set.

NUTTING & WILLARD,
SACRAMENTO, CAL.

The Gilmore Angora Goat

BREEDING ASSOCIATION,

IMPORTERS AND BREEDERS OF

PURE BLOODS,

—ALSO OF—

GRADES.

Stock Ranch situated at El Dorado, (Mud Springs) El Dorado county, four miles from Railroad Station. For prices of stock and any other facts connected with the business, address

N. GILMORE,
Dorado, El Dorado Co., Cal.

EXTRAS! | EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 9 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

CENTENNIAL EXPOSITION.

Visitors to the East can obtain advance accommodations (good until Nov. 10th), at all first-class hotels and boarding houses in Philadelphia. Full Board per week as low as $6.00, or $1 00 per day. Grangers, Freemasons, Temperance Societies and large bodies will be dealt with liberally. Parties taking our ticket can secure Hotel accommodations at New York, Saratoga and Long Branch without extra charge, by applying to

Centennial Boarding Agency Bureau,
of Philadelphia,
121 MONTGOMERY ST., - - SAN FRANCISCO.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT. — In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD,
President Business College, San Francisco, Cal.

$250 A MONTH—Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early
Marblehead Mammoth
Stowell's Evergreen
Mexican Sweet, New } Sweet Corn.

Early Canada
Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel
Yellow Globe
White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

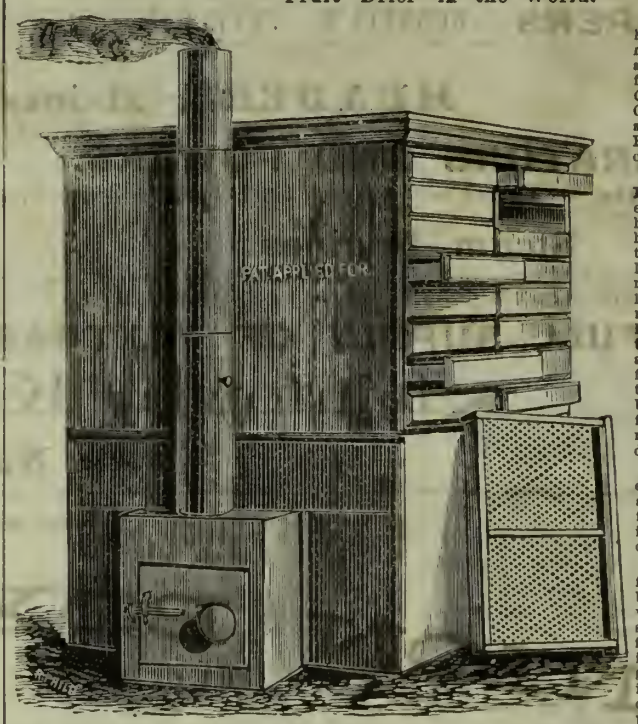
No. 317 Washington Street,

v8-tf SAN FRANCISCO.

ALEX. BUSWELL,
BOOKBINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER,
521 Clay Street, S. F.
Blank Books Ruled, Printed, and Bound to Order

THE CHAMPION FRUIT DRIER.

The Cheapest, Most Economical, and the Most Rapid and Easily Managed Fruit Drier in the World.



Drying Fruit and Vegetables has become one of the departments of labor and profit among the industries of California, and we invite Fruit Growers to come and see our CHAMPION FRUIT DRIER, and test it with any kind of Fruit or Vegetables before purchasing.

This Drier consists of a Sheet Iron Furnace, from five to eight feet long, and two feet high, with a partition running horizontally six inches below the top, on the inside, the full length and breadth of the furnace, except a space of five inches at the back end. Beneath this partition the fire is kept, the heat of which passes to the back, and there turns in a range upward through this five inch space, and passes between the partition and top, back to the front end of the furnace and out of a chimney, rising above the chest of drawers.

This arrangement completely equalizes the heat at each end and all along the top of the furnace, so that no one drawer is, at any time, hotter than the others.

The attachment to hold the fruit for drying consists of a box or chest of drawers, made wide enough to set out on each side and end about 15 inches from the furnace, and it is inclosed with tongued and grooved lumber, except space in front for the furnace, and on each side for the drawers to pass in above the furnace. This Chest is lined two feet high on the inside with sheet iron, and two tiers of drawers come in from each side, supported by pieces passing from one side across the top of, and one foot above the furnace to uprights on the other, and meet in the center over the furnace. The bottoms of these drawers are made of wire cloth, on which the fruit is laid for drying. Over the center of each tier of drawers is a hole four inches square in the top, with a slide to keep it open or closed, as the case may require, and through these openings the hot air passes in a continuous current from the furnace below. The space in front, not filled by the furnace, is closed by a piece of sheet iron fitted over and down on each side, and to this piece there are two ventilators at the side of the furnace where the fire is hottest, to admit air. These two are the only places where air enters, and it is made very hot by the heat of the furnace, as it enters and passes rapidly up through the fruit in the drawers, and out at the ventilators at the top. This simple arrangement keeps a constant current of hot air passing through each drawer, which keeps it in the most rapidly drying process.

The chest of drawers is from four feet high to as high as desired. The drawers occupy about four inches space in the hight of the chest, and are about two feet deep, and 34 inches wide, and hold 25 pounds of fruit. But fruit will dry faster by putting in 12 pounds, and as it dries out a little, double it up. The machine can be built to have from 12 to 108 drawers, and will dry from 1,000 pounds to five tons per day, of green fruit.

We can dry any kind of Fruit or Vegetables in from one and a half to eight hours, and our machine is well adapted for drying Meats and Hops. This Dryer was thoroughly tested on the 32d of May, and many orders were taken from the Fruit Growers that tested it.

PRICES:

No. 1.—12 Drawers, drying	1,000	lbs.	of	Green	Fruit	per	day			$110.00
No. 2.—32 " "	2,000	"	"	"	"	"	"			160.00
No. 3.—48 " "	4,000	"	"	"	"	"	"			280.00
No. 4.—108 " "	10,000	"	"	"	"	"	"			540.00

Orders must be sent to

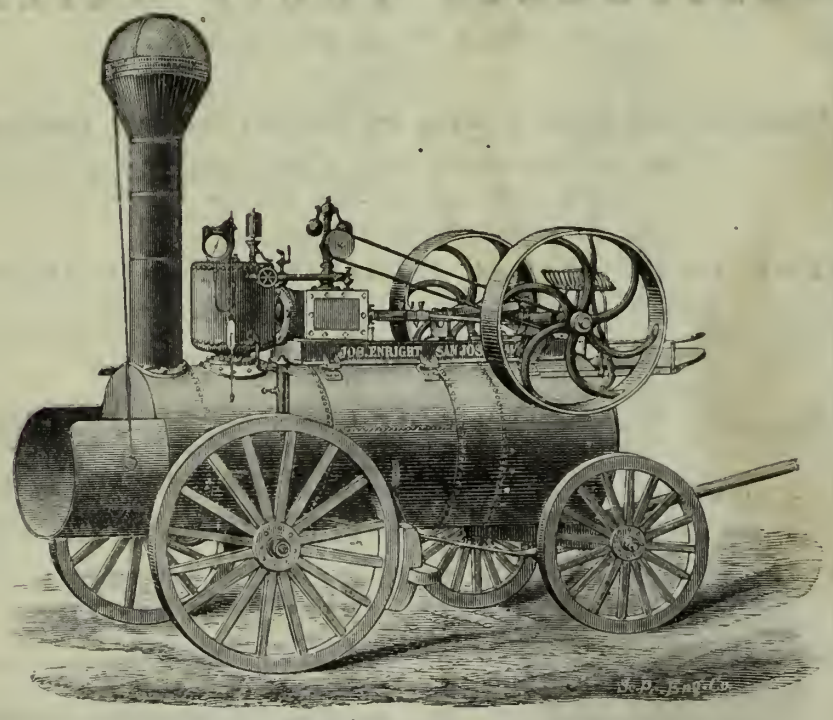
J. M. KELLER,

Of the firm of Keller & Co., J St., Sacramento City, Agent for California.

Parties wishing to purchase can test it with any kind of Fruit or Vegetables.

ENRIGHT'S PATENT PORTABLE

WOOD AND STRAW BURNING ENGINES.



Patented July 20th and November 2d, 1875.

Burns Wood or Straw without change, and Coal by changing two plates. Took the Premium at the California State Fair, 1875, as the Best Straw Burner.

PIONEER BUILDER OF THE FIRST PORTABLE THRESHER ENGINE ON THE PACIFIC COAST, 1861

PATENTEE AND BUILDER OF THE

BEST PORTABLE STRAW OR WOOD BURNING THRESHER ENGINES, 1876.

Send for Testimonials and Price to

JOSEPH ENRIGHT, San Jose, Cal.

SHERIFF'S OFFICE, SACRAMENTO, Sept. 21st, 1875.

MR. J. ENRIGHT—*Dear Sir:* The Straw Burning Engine I bought of you, and which was used in Yolo county, has given us perfect satisfaction. It is everything you represented. We have had no difficulty in generating all the steam required, and the amount of straw consumed can hardly be missed. We find it much safer, on account of fire, than a wood burner. Many persons, both threshers and farmers, have come to see it run, and all express themselves highly pleased. The opinion of all was, that it is just what we need, being safe and economical. H. M. LARUE.

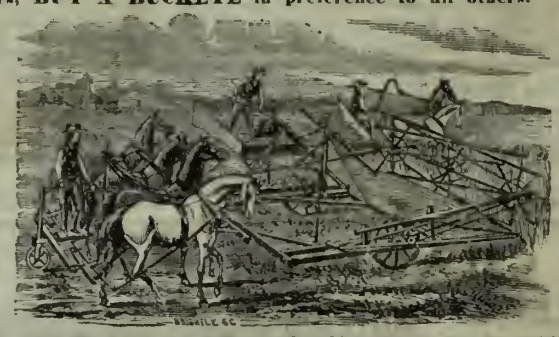
Buckeye Mower and Reaper.

The most perfect, the most reliable, and most durable Harvester ever built.

12,000 in use on the Pacific Coast. Every farmer using them will bear testimony to their unequalled merits. They will do better work and will outlast two of almost every other make of machine.

Farmers, BUY A BUCKEYE in preference to all others.

With Adjustable Reels. IRON WHEELS.

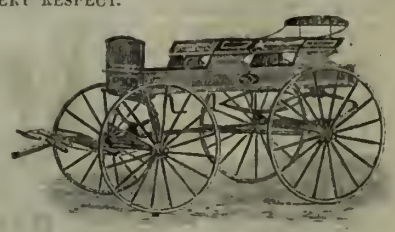


SHORT FRAMES. Springs to raise Cutter-bar.

HAINES' SINGLE AND DOUBLE GEAR HEADERS.

We offer a Header to farmers this season improved far in advance of any Header in the market and one we can WARRANT IN EVERY RESPECT.

SCHUTTLER FARM WAGON.



SCHUTTLER SPRING WAGON.

Superior in strength, durability, and lightness to any wagon manufactured. Warranted to run lighter and wear longer than any wagon in America.

MARCUS C. HAWLEY & CO.,
San Francisco and Sacramento, Sole Agents for the Pacific Coast.

PACIFIC RURAL PRESS

Volume XI.] SAN FRANCISCO, SATURDAY, JUNE 24, 1876 [Number 26.

Steele Brothers' Dairies.

Upon the invitation of I. C. Steele, Esq., of the well-known dairy firm of Steele Brothers, we made a visit dnring last week to the dairy rancho on the land which was originally the four league rancho of the Point of the New Year. The location is in the southern part of San Mateo county, and the dairies lie upon the coast slope and amid the adjacent mountains. Reaching Pescadero by way of San Mateo, we were met by Mr. Frederick Steele, and carried behind a spirited team fourteen miles down the coast to the residence of I. C. Steele. Mr. Steele has a beautiful home, fronted by a flower-covered lawn and backed by a thrifty orchard; the premises lying within view of the ocean and within hearing of the rolling surf. It is a home which embodies the qnality of taste—an appreciation of home comfort, and it is the result of success in agricultnre.

The Steele Brothers.

From their long connection with the dairy industry of this State and from the success which they have attained in placing upon the market large quantities of fine cheese, the Steele Brothers have a well-known name; a few points concerning the *personel* of the firm and the field of their operations are not so generally known and will be of interest. The firm of Steele Brothers consisted originally of four members: E. W. Steele, George Steele, R. E. Steele and I. C. Steele. Their first location was on Point Reyes, in Marin county, and they began there July 4th, 1857. The Point Reyes property passing into new hands, which prevented their purchase of the tract, Steele Brothers leased, in 1863, the Point of the New Year ranch, in San Mateo county, and began at once the establishment of dairying in this region. The ranch contained about 18,000 acres. When they made this lease they took the right to purchase that part of the property lying south of Gazos creek. This purchase was subsequently made. When the Point Reyes lease expired the firm had on hand a fine lot of cows and cheese-making apparatus, and seeking a new location purchased a tract of 45,000 acres in San Luis Obispo county. Some transfers of property have been made since that time. R. E. Steele has retired from the firm and lives upon his individual property adjoining I. C. Steele's. I. C. Steele, while living on his own property, still retains his interest in the Steele Brothers. The firm now consists of three members: E. W., George and I. C. Steele, and the property of the firm is in San Luis Obispo county. Since the original purchase they have sold off parts of the tract. They have now seven dairy ranches and some of the finest grain land in the county. We have given these facts in some detail because they comprise an interesting item in the dairy history of the State.

The Dairies Visited

On our cruise with Mr. Steele were all located within the limits of the original Point of the New Year rancho, and were as follows: I. C. Steele, 170 cows; R. E. Steele, 185 cows; C. E. Steele, 100 cows; W. F. Ramsay, 80 cows; Mr. Sprague, 85 cows; Walker's Cloverdale dairy, 95 cows; Montevaldo Brothers, 100 cows. In all of these we noted points of interest which we shall present under the general headings below.

Dairy Buildings.

The dairy houses of I. C. and R. E. Steele are very praiseworthy and compare well with any we have seen anywhere. They are conveniently arranged, fitted with the most approved apparatus, and have ample curing and storing rooms. I. C. Steele's dairy house is two stories high. The first floor has the make and press room, a sink room, and a milk room which is used now as an addition to the regnlar curing space. The second floor is fitted throughout with shelves for cheese. R. E. Steele's dairy house is similar, except being generally larger, and having a loft over the second story fitted with shelves in case of a press npon the space for curing. These factories are both finished with outside blinds for securing a proper exclusion of light and heat. Mr. Ramsay's building is smaller. The dairy houses on the other ranches are more temporary in constrnc ion, as the owners do not feel like great investment in improving leased land.

The Stock.

We had a good opportunity of examining Mr. I. C. Steele's dairy herd at milking time. They are noble, capacious animals, evidently in good flesh and heart. The herd has been developed npon the plan of raising calves from the best milkers, which is a practical method of improvement which is within the reach of all dairymen. The dairy is also in good strength and youth. Many dairymen overlook or disregard the advantage of keeping the dairy filled with fresh vigor. They keep on the cows too long instead of fattening them off as soon as they begin to fail and filling their places with young cows bred especially for the milking power. Mr. Steele has profited by the good practice and his dairy shows it in the qnality of the younger stock. We did not have opportunity to examine the cows of the other dairies, as they were on the ranges as we pas ed along

THE BUERRE D'AREMBERG

Feed and Shelter.

It is gratifying to note the generally ample provisions being made on the dairies visited for abundant winter feed. They seem well to understand the truth that if you fail to put anything into a cow you need not expect to draw much from her, and that vitality lost during a season of hardship requires a considerable exercise of productive power to restore. Althongh on parts of the lands visited there is a living nearly the year ronnd, still there is profit in having a good supplementary feed. In the matter of shelter, too, which is closely allied to the subject of extra feed, we were pleased to notice due consideration paid. Exposing cows to the chill severity of the winter rains and winds is very poor dairy economy. Mr. I. C. Steele has a large barn which is filled to the peak of the gables with 100 tons of good hay, and has space beneath for enclosing and feeding the cows. He is putting in a good deal of "bald barley" hay and values it highly. Mr. R. E. Steele is now building a large addition to his hay and shelter accommodations. Mr. Ramsay has a spacious cow barn, ample both for hay and shelter, and has just finished a good horse barn, with granary and hay mow. Mr. Spragne, although not going to the extent of shelter, will erect this summer a hay shed for which his cows will thank him. He connts several economies in providing winter feed: first, saving strength of cows in keeping them from the extra travel of hnnting out their feed; second, increasing the prodnct; third, saving the loss of feed occasioned by the tramping of the cattle on the soft ground, when they destroy twice as much feed as they pick up. He believes with Mr. Steele that there is profit in keeping the cows np nntil there is a good bite ready in the pasture. It is good both for the cows and the feed.

The Cheese Making

One great point in favor of the Steele Brothers' brand of cheese is its uniformity in quality. Although there are a number of dairies using the brand, there has been a commendable regnlarity in the product, first, because the firm has exercised some care in supervising the work of tenants, and second, because many of them have learned the art of making in the "home factories" of the firm. Mr. I. C. Steele has a very good maker in his factory, an Italian who has been with him several years. The milk is set at 82 degrees and the scald is carried to 98 degrees. He uses rennet enough to bring the curd fit to cut in thirty to forty minutes. He cuts the cnrd a little coarser than wheat kernels, and generally has the cooking complete in three hours from the time of setting. He develops a slight acid in the curd. Mr. R. E. Steele has a somewhat different plan. We had a very pleasant conversation with his son, Mr. Leonard Steele, who makes the cheese and who is a firm believer in the sweet curd practice. He sets his milk at 86 degrees, cuts the curd about the size of peas and heats to 100, doing the cooking generally in an hour and a quarter or an hour and a half. Before cooking he draws off five or six inches of whey, stirs ten or fifteen minutes and then puts on the heat. Before taking np the curd he draws down the whey to within two inches of the curd and works it over nntil it gets hard enough to take up, it being free from any perceptible acidity. The claimed advantage of this system is in an increased weight of cnrd from the milk. Mr. Steele claims the acid as a very effective and very uncertain agent in cutting down weight, and mentions cases in which, by developing an acid, he varied ten to fifteen pounds in weight of curd from vats of milk of similar weight, according to the strength of the acid brought on. By the sweet curd plan he has come not to vary a pound from day to day with equal qnantities of milk. He finds also a great saving in weight over the acid system, and instances cases of making 610 ponnds of cheese (weighed from the press) from 550 gallons of milk, which wonld be a ponnd of pressed curd from about seven and one-third ponnds of milk. This is the best result we ever heard of.

The cheese now making is mostly from dry feed and this gives a condition in the milk which is nnlike anything recorded in dairying elsewhere than on this coast. It is different in some respects from the hay milk in the East, and when the dry feed milk comes on it generally floors the Eastern cheese makers who come to us. The cnrd is exceedingly tender and if not properly handled will make a soft, weak cheese. The secret of handling this style of cnrd is to work slowly, giving it plenty of time, and when a maker has learned to do this wisely tho result is satisfactory.

We gain constant evidence of the truth of what we have stated bofore as the resnlt of our observations, and that is that our California coast air and temperaturo constitute a fund of immense valne in the production of good cheese. Mr. I. C. Steele informed us that in his experience of 18 years here he never had a "floating curd" in his vats. Such an experience from a man having knowledge and interest in so many dairies as Mr. Steele is indeed most valnable testimony of the cheese fitness of our coast connties. Snch an experience in the Eastern dairy regions would be seldom as a hen's tooth. If any one interested in the sale of dairy lands on this coast desiros to induce dairy immigrants from the East, let him advertise: "Not a floater in 18 years." It would draw like a poultice, because it wonld be better evidence to a cheese maker of the purity of milk and clearness of air than a cental of affidavits.

Markeling Cheese.

Steele Brothers are now holding large quantics of cheese on their shelves rather than crowd it npon the market, which for the present is overstocked. They have always done well in waiting for the fall demand to spring up, and believe tho cheese is safer and can ho better cared for in the curing rooms than on the shelves of the city stores. For this purpose they have large curing rooms and wait to realize the advanco which has always come.

Buerre D'Aremberg.

We give on this pago an engraving of a winter poar which has a good record among the frnit writers. It is the "Buerre d'Aremberg," bnt is known by several other names, viz: "Duc d'Aremberg," "Colmar Deschamps," "L' Orpheline," "Deschamps," "D'Aremberg Parfait," "Buerro des Orpholines," "Orpheline d'Engheim" and one or two others, owing to the indefiniteness which pertains to frnit nomenclatnre. This pear is often confonnded with the "Glout Morcean," bnt there are several strong points of difference as pointed out by Downing. The frnit of the Buerre d'Aremberg is above medium size, is of dull, pale green color, becoming, at maturity, light yellow, clouded with green, and with traces of light cinnamon russet. The flesh of the frnit is white, buttery and melting, with abundant rich delicious vinous juice. The tree is very hardy, commences to b ar early. It is a good healthy grower, with long-jointed wood of yellowish brown color, dotted with pale gray specks. It is reported to thrive best on warm, rich, loose soils, rather than on heavy clays It is a good bearer and tho frnit may be packed like apples and brought into a warm room to ripon as desired. The pear is of Belgian origin.

CORRESPONDENCE.

[Editorial Correspondence.]

The Centennial at Philadelphia.—No. 6.

In continning our reference to the exhibits in machinery hall we come now to

The Exhibit from Belgium,

Which, it will be scen by reference to the diagram with our last letter, may be found on the north side of the hall, and just beyond the French exhibit, corresponding to ite geegraphical position on the map. The most monstrona thing in thie exhibit ie a hnge well borer, the design of T. Chaudron, a Belgian civil engineer, and employed for boring and tubing mining ehafts and wells below the water level. This machine consists of an cnormous gallows frame, snpporting a leg of iron, shod at ite lower extremities with a row ten fcet long of moveable chisels, nsed to stamp or drill holes into hard rock. This leg, with its long row of chisels, being cansed to move up and down like a monstrous drill, aud being rotated six inchee after every stroke, soon works its way down into the rock, forming a wel] ten feet in diameter. After the chisels have done their work, a valved bucket or a grapplingiron is let down, which scoops up the mud or fragments of rock, and brings them to the snrface. If a larger well or shaft ia wanted, the machine is further provided with another large forked leg, containing two and a half feet of chisele on each side, the blank space straddling the ten foot hole already made. When this ie set to work it cuts around the previous well and enlargee it to 15 feet in diameter. It seems at first sight as though this machine wss made merely to show how much of a possible monetrosity conld be put into such hnge shape; yet the agent states in his circular that these machines have done a large amount of work, at a much less cost than it conld have been done in the ordinary way of drilling and blasting. Forty-four different shafts are enumerated, located in France, Great Britain, Belgium and Germany, which have been snccessfully snnk by these machinee, varying in depth from 115 to 760 feet, and in diameter from 10 to 15 feet. A gigantic tubing apparatue accompanies this exhibit, by which heavy cast iron sections of tubes two inches thick and 15 feet in diameter can be readily adjusted in the deepest shafts. Lighter tubes may of course be nsed when the ground and depth will permit. It is poesible, according to the above record, that one of these machines might prove useful iu California or Nevada.

Belgium also exhibits a donble Corliss engine, built at the company's worka in Providence. It is really a splendid machine, and the reception of such an order from the government of a conntry so far advanced in the art ot engine building as Belgium, is a high compliment paid to the Corliss company and to American mechanical skill. We also have here beautiful machines for working wool, cotton and iron; aleo, two very fine carriages—one a double seated open carriage, and the other a single seated covered one. We have also multitubulsr filters, rotary pnmps, shears and punching machines. This little country, by her exhibit, both here and in the main building, gives evidence that she is really what ehe is aaid to be—a beehive of artisans, in which there ie ecarcely any important branch of industry neglected.

Sweden.

One of the principal exhibits made by Sweden is in Bessemer steel. It ia shown only in part in the building. Locomotives and car wheels made of this steel are shown which are said to have run 190,000 miles without being turned, and still show very little wear. The ordinary life of a locomotive wheel is from 60,000 to 80,000 miles. Railroad axles and car wheels are exhibitsd in the various stages of their manufacture, eo conditioned as to ehow the snperiority of the iron from which they are made—bent, twisted and hammered together in a cold state; drawn cold into knots; worked cold by means of powerful pressure and percnssiou under the steam hammer, etc., all ot which ia designed to show the excellency of the Swedish iron and eteel—which deservedly standa ahead of all other productions of the kind in the world. Machinery for making castings is also shown. This set consists of eight pieces, all neatly made and effective, but not equal to that ahown by the United States in the Government building. Circular saws and gang saws are also shown, to remind us that Sweden is a lumber as well as an iron producing country. A nnmber of cooking stoves, ranges and heating furnacea are also shown. Among the cooking stoves is a "rotary," quite similar to those used in this country 25 years ago. Her sewing machines have already been noticed.

The only foreign built locomotive, aside from a small nndergronnd mining locomotive in the English section, ie shown by Sweden. This is a tank machine and built to run in the mountaine on a narrow gange track. It is evidently a well constructed machine, and capable of doing good eervice, but of conree will not come np in neatnese of construction or compactness of build with a similar clase of engines turned out by the Baldwin locomotive works. A large upright engine (Wolf'e patteru) is also shown, also a horizontal engine of qnite a different pattern, both well built and showing good work. A new and novel governor cnt-off is shown, working by a cylindrical expansive valve, which appears to be a most excellent and effective device.

The Swedish exhibit which of all others from that country is the most attractive to the general public, is a full set of instruments—12 in number—designed to illustrate the "Swedish movement cure." It is exhibited by Dr. G. Zauder, a native, who exhibite each piece of machinery iu practical operation at certain honrs of each day, submitting either hie own person and limbs or those of any of the visitors who may be willing to try the virtuce of the "movement cure."

Sweden also exhibite in agricultural hall, but her chief exhibition is in the main building, both of which will be noticed in due time. When it is recollected that this little conntry is not larger thsn California, and has no greater population thau the State of New York, it is a matter of much gratification to American visitors that she has taken so great an interest in onr Centennial exposition. Mr. C. Jahlin, who is chief commissioner for Sweden, states that this exhibition greatly exceeds any previous aimilar efforts of that country at world's fairs. It may not be generally known that a large colony from Sweden, consisting of about 1,000 in nnmber, landed at the mouth of the Delaware river as early as 1638, snd there founded "New Sweden." Many of the present citizens of Wilmington, Philadelphia, and other places iu this vicinity are proud to trace their aucestry back to this eettlement, and eome of them keep their peculiar church organizations to the present day.

The Spanish Exhibit

Is ecarcely presentable ae yet. The chief effort of this country has been made in other departments than that of machinery. The principal article thne far visible in machinery hall is what appears to be a small chain excavator, with an engine to drive it. Another small engine is also shown, and a sewing machine, much after the style of the American machines, and handsomely mounted on a somewnat imposing pedestal. There is also a model of a railroad track of peculiar construction, the particnlar application of which is not apparent and cannot be made so to the uninitiated in the absence of any attendant.

Although the Spanish exhibit in this hall is quite mesger and very limited in extent in comparison with the more pretentions exhibits sround them, we cannot hnt admire the courage of the three or four individnals who *are* here. They appear in no way set back by the disparity, and work on with as much nonchalance as though there were scores of their countrymen present. A most excellent spirit in this direction prevails everywhere. While each ia doiug his or her best to make the most of what they have, either as individuals or nationslities, every one eeems cordial toward all around, and each seems to be striving to make the most of the exhibition ae a nnited whole. The visitors also eeem to be animatsd with the same spirit, and a complimentary remark is often dropped within the hearing of a minor exhibitor, which is evidently intended more as a word of cheer and comfort than for the real expression of an opinion in regard to any particular excellence or snperiority ot exhibits. It is gratifying to thus witnesa and record such evidences of genuine politeness on the part of a people not ovor particular in such regards when acting as entertainers of those who are proverbial for such delicate attentions. It is euch little things that will really accomplish the earnest resnlts in making this great social and industrial reunion of the nations one of unalloyed pleasure and profit to all. It ie by ench meana that whatever of rivalry may and should appear shall be so toned that even the defeated shall enjoy the successful competition of a neighbor almost equally with his own, consoling himself that what he has lost in point of honor will be more than made up by the ideas which he has gained in regard to a new departure, which he hopes will lead him to a sure victory in the next conteet.

Spain'a best efforts at this exposition seem to have been directed to the art gallery, to her general exhibit in the main building and in agricultural hall, where we shall find her iu some future letter, holding a most honorable poeition among the leading nations of the world.

The Empire of Brazil.

The presence of the distinguished head of this government, and the interest which he has manifested in everything connected with the exhibition snd with the resonrces of our country at large, attracts nnusual interest to the Brazilian exhibit. Her display in the threo principal buildings is all very superior, both in merit and in the manner and taste displayed in arranging the same. The two great nations—Brazil and the United States—occupy a very large portion of the American continent, and contain about one-half of its population. And, notwithstanding their diseimilarity in government and langnage, they are in many respects very similar, and in sympathy drawn very closely together. The commercial relations between the two countries are very important, and their diplomatic relations have ever been of the most friendly character. The interchange of products between the two countries is growing more and more important every year, and from conversation with her representative in charge at the exposition—Luis de Rezende—I learn that the people and government of that country are exceedingly anxious to still more encourage and foster this condition of things. It is to that end that this fine display has been prepared, which will enable our people to learn much about that country that they have never known before, and which they cannot gather from books. Let them go into the various buildings and see what Brazil is presenting for the world'a gratification and for our mutual profit. Those who visit the exposition for study will find much to learn there. Our government and people have given Dom Pedro II a most cordial welcome as the great and enlightened ruler of a vast and productive country, which furnishes a rare instance of wise and progressive imperialism. They have also learned from the personal appearance of the Emperor how little of the common trappings of royalty hedge about an emperor when both ruler and people are enlightened and infused with modern progressive ideas.

Referring to the exhibit in machinery hall, we find a vertical twin steam engine, built at Rio Janeiro, and models of several other engines, evidently intended for river boats on the Amazon and the other great rivers of the empire, together with many other products of the shops of that country, which attest the skill to which her mechanics have arrived in the difficult art of forging, founding and working iron, steel and bronze. Two large eight-inch breech loading bronze siege mortars, elegantly finished, and two bronze ship's guns, one with a wooden and the other with an iron carriage, are exhibited, to which are attached all the modern appliances for working the same; also several pieces of field artillery of steel and bronze, rifled and breech loaders—all the works of native artisans—display much skill in the art of cannon founding. A mountain four-pound howitzer of peculiar construction and mounted upon two horses—life size models—with a still more peculiar harness equipment, intended for mountain warfare, show that this people are carefully studying the art of war—for protection at least. This mountain howitzer equipment is quite novel, and appears to be perfectly practical and simple in all its details. It is capable of great celerity of movement and most effective execution with properly trained horses. Perhaps our own government might learn something to its advantage from this exhibit in its contests with the Indians of our own mountain fastnesses. A miniature fort, with its armament and military surroundings, taken in connection with the more formidable displays already noticed, is eminently suggestive of the progress which Brazil is making towards an important position among the great nations of the earth.

But her most interesting and creditable display is in the arts of peace. A neat little pavilion, attractive with gay trappings of silk and woolen, is constantly filled with an admiring crowd of ladies and their escorts to witness an exhibit of the silk interest of that country, particularly in its productive department. The progress of the work is shown up to the production of the raw material, which is wound off from the cocoons with deft and fairy fingers, supplemented with very simple but effective machinery, the invention of Lnie de Rezende, the gentleman already mentioned as in charge of the Brazilian exhibit, who is largely engaged in producing silk. This exhibit, together with the extensive ones in the main building and in agricultural hall, are highly creditable, and give unmistakable evidence of the rapid advance which this empire is making towards an important position among the leading industrial nations of the earth. As a further evidence of progress in this direction, we may allude to the fact that Brazil is fast binding together the distant parts of her vast empire by means of railroads across her great plains, and lines of steamboats along her magnificent rivers and throughout the immense extent of her sea coast. One of the finest locomotives on exhibition bears this description—"Estrada de Ferro de Dom Pedro." It is numbered "89," and was built at the Baldwin locomotive works, near this city, the Brazilians not having yet essayed the difficult mechanical branch of locomotive building. Mr. Williams, one of the proprietors of the works named, informed me that the figures 89 represented the total number of locomotives which his company had built for only one of the dozen or more different railroads now in operation in that country, that one, however, the most extensive of all.

Russia.

Owing to diplomatic difficulties Russia was the last European country that accepted the invitation to participate in our Centennial; consequently her preparations were made somewhat hastily. Moreover her goods were unfortunately sent on a ship which had to put back by reason of stress of weather. But for these circumstances she would have been all ready with her exhibits at the start. Her people manifest much energy, are good workers, and appear to enter with hearty zest into this great industrial contest. She has uncovered a number of locomotive tires, the special character of which is not apparent, unless it consists in their very great diameter—fully six feet or more. There is still in this department a large number of unopened boxes, whose contents are unknown to the writer, but which in due time will, no doubt, make a most interesting and creditable exhibition. We may take occasion to refer to them further when we come again to Russia in the main and agricultural buildings.

No other European nations except England, to which my next letter will be especially devoted, are making any noticeable exhibite in machinery hall. W. B. E.

Beyond the Sierras.

EDITORS PRESS:—One of the most beautiful valleys in the world is that where I now rest. It is walled on either hand by the Sierra Nevada on the west and the Inyo mountains on the east, and in some places appears completely girdled by these two great chains. It is, in itself, a high table land, having been ascertained by exact measurement to be 4,340 feet above the sea, while the higher peaks are nearly 11,000 feet. The grand effect of these snowy summits, standing as they do against the deep blue that might rival in clearness the far-famed Syrian skies, can hardly be imagined. As we gaze into their depths, shadowy caves, sparry grottoes and crystal halls open to the sight, and we wander away through scenes of unimaginable peace and beauty. Indeed, the mountain scenery of this region could not well be surpassed.

The valley itself is about 100 miles long, and from 10 to 15 wide, and is watered in its whole extent by Owen's river, a very winding stream, with a deep and narrow channel, that carries water enough through the year, if properly distributed, to irrigate the whole valley. This stream is said to bear a striking resemblance to the Jordan, while Owen's lake, into which it empties, is in some of its charactera like the Dead sea, for it has no visible outlet and contains no fish. Indeed, the general character of the scenery would remind the traveler of Palestine or the Holy Land, but the lively little steamer that plies on the lake gives to the scene a modern, familiar look.

A few miles from the lower end of the lake is Lone Pine, which, it will be remembered, suffered much by the great earthquake of 1872. It is now the depot where the business interests of the neighboring mines are chiefly transacted. The village is spread over a great deal of ground and has an excellent hotel, kept by Mrs. Eames, whose refined manners and womanly kindness will not soon be forgotten. Here it may be said that the Cerro Gordo mines, about 20 miles east of Lone Pine, which for the last 18 months have been lying idle on account of litigation, are now running, with two furnaces in full operation, and under the new corporation they will probably double their products within a year.

A morning ride of 16 miles through a vast level of sage brush, with here and there, as there might be almost everywhere, fine ranches, we arrive at Independence, the seat of Inyo county. Though only nine years old, this little town has already some marked advantages, among which are the Blaney hotel, which, in the general good taste of its appointments and the excellence and variety of its viands, may compete with our best city hotels, and a weekly paper, that ably represents the character, wants and mental caliber of the county itself. I have seen few better country papers, for though small in size it covers a wide field of observation and thought.

The Kearsarge mine, which has been lying still for five years, is in this vicinity. New operations are in progress; and the Eclipse mine, on the Inyo side of the river, is now being worked with a 30-stamp mill on gold ore. The Inyo range on the east side of the valley has the appearance of one vast body of mineral, and must ere long develop a vast accumulation of wealth, such as cannot be found in California. In fact, the mineral wealth of this county is rapidly developing, and at no very distant day it will show itself second to none other.

Again taking the stage at four A. M., we have a ride of 40 miles further, and arrive about noon at Bishop Creek, a cluster of half a dozen houses, situated on the stream whose name it bears. Then a little ride of two miles more, and we are released of our wayfaring for the present. The new home is a picturesque little cottage nestling close by the side of a prattling brook, born of the pure mountain crystal, overshadowed by beautiful trees that might well vie with the classic groves of Academus.

At another time I may give you some account of the natives, and the agricultural resources of the valley, but here for the present I rest, and here I work, to unfold great powers and purposes yet unknown.

FRANCES H. MCDOUGALL.

Owen's Valley, May 24th, 1876.

THE GARDEN.

Make Gardens.

Considering the ease and facility with which splendid gardens can be made in California, it is remarkable that they are so few in number. Nearly all that any person owning a small spot of ground has to do is to sow the seeds of flowers and cover the roots of plants with earth, supply water occasionally, kill weeds and leave the rest to nature. Almost all kinds of ornamental trees and flowering plants will grow luxuriantly in this State, and if what Socrates says is true, that the garden is the source of health, strength, plenty, riches and honest pleasures," Californians cannot too highly estimate the advantages which they can readily enjoy if so disposed. For more than a century the light of science has been powerfully concentrated upon gardening in Europe.

and yet the great skill and enormous expenditures brought to bear upon the pursuit in "the old country" fail in producing the results that can be readily achieved by novices in our own State. In England, France and Germany, landscape gardening has been brought to great perfection—all having been done that skill and money could accomplish. In those countries ornamental gardening, flower and fruit culture have been greatly stimulated by scientific institutions. Yet, after all, the royal botanic gardens at Kew probably at no time in the year present more beautiful floral spectacles than can be seen in small gardens in and around Stockton almost at any season. The astounding result achieved in the growth of ornamental trees, rare shrubs and flowering plants in a short time in this State, more particularly in our own immediate neighborhood, is forcibly illustrated in the garden of B. W. Bours, Esq., on the north side of North street, outside of the northern boundary line of the city. This garden embraces an area of about four acres of trees, shrubs and vines planted some three years ago. The grounds were laid out according to the directions of the owner and under his own personal supervision, and the whole arrangements combine, in a very noticeable degree, the convenient and the beautiful. The grounds contain a large number and variety of choice ornamental trees and rare flowering plants, such as only live and thrive in conservatories in Great Britain and the Atlantic States. The rapidity of the growth of the trees and plants has been really wonderful, and the entire garden affords a striking exemplification of the peculiar advantages of the climate and soil of California for gardening purposes. Were Californians a little more intent upon making gardens and ornamenting their homes, the State would soon be a blooming paradise.—*Stockton Independent.*

The Vineyard.

Cost of Raisin Drying Floors.

Editors Press:—In your issue of April 15th, "G," of Los Angeles, makes the following estimate of the cost of a raisin drying floor recommended by W. A. Sanders:

Let us figure on the cost of such a drying floor. Take the least thickness—18 inches—of the horizontal stone wall recommended, and we would have 13,000 cubic yards of rock in a curing floor for 40 acres of grapes. The cost of quarrying and putting in place the rock carefully so as to make the "top like a single stone of size and thickness of the entire floor" would not be less than $3 per yard—$39,000. Then the excavation for such a wall floor, 13 inches deep, 13,000 cubic yards at 30 cents per yard, would amount to $4,900. Total, $53,900.

I have wondered why Mr. Sanders has made no reply to the above, which may deter some from acting on his suggestion. "G" asserts that a floor 18 inches thick must contain 13,000 cubic yards; that will require a superficies of 26,000 square yards—which will give a drying floor *more than five acres in extent.* If a man who has 40 acres of grapes must set aside a field of *five acres* to dry them, then "G" is correct in his estimates. But, as I understand Mr. Sanders' article, he recommends us, instead of drying on a platform of boards, or in other less efficient modes, to construct drying floors such as he describes. Such a floor, say 100x50 feet by 18 inches deep, will require (any schoolboy can calculate the number of cubic yards in a space 100x50 by one and a half feet), exactly 833⅓ cubic yards of rock, which, at "G's" figures, $3.00 per yard, will cost $2,500. But very few will need such a large floor; I take it that one 20x30 feet will afford all the space most of us need. Our schoolboy answers that a space 20x30 feet by 18 inches deep, contains exactly 100 cubic yards, which at $3.00 per yard is $300 Will Mr. Sanders tell us how large a drying floor is necessary to dry the grapes produced on 40 acres? Surely not a floor even *one* acre in extent, or even one-half an acre. Will Mr. G. tell us where and how he obtains his 13,000 cubic yards? M. Eyre, Jr., Napa, Cal.

Mr. Eyre perhaps did not notice Mr. Sanders' letter in the Press of May 6th, in which he states in a general way that he does not advocate a wall floor except in places where the rock is lying in the way and might be put into a drying floor almost as cheaply as it could be moved out of the way. We trust we shall have Mr. Sanders' and "G's" opinions of Mr. Eyre's analysis of the estimates as printed above.—Eds. Press.

Grape Culture and Grafting.

Editors Press:—An article in a recent issue of your paper on the grape and the experiments of the French in grafting, deserves notice. That there is a pressing need of some good wine grape as hardy as the Clinton or Concord, there is no doubt, and we hope such a one may be found, but we have no confidence in the plan of grafting a weak rooted sort on a stronger rooted one. Nurserymen find in all cases where trees are grafted on seedlings that the root corresponds with the top, or in other words, the sap furnished by the leaves will ultimately grow just such roots as the nature of the variety produces.

It is natural for a Trancendant crab to have very large long roots with very few fibers, and for some varieties of apples to make no large roots, only small weak fibrous ones. Now, if a seedling long enough to graft two tops on be cut in two, and one-half be used for the weak growing apple and the other for a crab, and each be planted, at the end of three years we find each tree will have roots true to its tops, one a large long heavy crab root, and the other a small fibrous one. We have tried grape vines many years old, grafted to Iona tops, and find that for a few years the Ionas are splendid, but as soon as the top can change the roots, they become enfeebled and do no better than on Iona roots. This fact and the difficulty of grafting successfully will prevent any success in this way. The true plan seems to be to use care to prevent and destroy phylloxera, and to experiment until a new grape is found to successfully withstand its attacks.

J. B. Jones.

Rochester, New York, May 27th.

Bees.

To Prevent Swarming.

In the issue of the Rural Press of May 6th, there is an inquiry from "W. W." concerning preventing swarming. We made a brief comment in reply. N. Levering, in the Los Angeles *Herald,* continues the answer as follows: "We fully endorse the above reply to W. W.'s queries as far as it goes, and will add that the inquiring novice had better artificial swarm as advised and save his music for the celebration of the coming Centennial glorious Fourth. Noise in setting a swarm we think avails but little; water or dirt thrown freely among them we have found most effectual. They of their own accord usually settle, but when they swarm out with the full determination of absconding, there is no remedy. W.'s bees appear to be troubled with the swarming fever, and as he says, are only hived to be hived again. We will give him an effectual remedy to compel his bees to remain in the hive where they are put. After the bees are all in the hive, close the entrance so that they cannot get out, but be careful and give them sufficient ventilation, so that they will not smother; then place them in a dark room or cellar, where they will not be disturbed. They will remain more quiet in a dark place, but if you have no suitable room let them stand out of doors. Keep them shut up for three days. On the evening of the third day liberate them, when they will have dissipated all idea of absconding and will at once go vigorously to work. The reason for this is that when bees swarm they invariably provide themselves with three days' rations, and when confined for that length of time they consume the provisions on hand and like the traveler when strapped must stop and go to work. We have practiced this for several years, and have never failed in a single instance to compel the swarm to remain. Bees sometimes desert the hive on account of some offensive odor about it, heat, and various other causes often not discernible or known to the bee keeper. Hives should never be made of new pine boards or any other lumber that has a strong odor, as it is offensive to the bees and frequently causes them to desert the hive."

Arboriculture.

Planting a Forest.

On the Laguna ranch, seven miles from Los Angeles, Mr. H. H. Spencer contracted with Col. R. S. Baker to plant 75,000 blue gum (or eucalyptus) trees in a field of 100 acres. Mr. Spencer secured a large quantity of seed from Australia, and planted it in boxes at his place on Hill street. As soon as the plants began to shoot he transferred them to other boxes, placing them in exact and equi distant rows, with a view to transplanting them in the ground as he is now doing. Mr. Spencer invented a machine by which the tree is lifted from the box, with all the earth surrounding it, and injected, as it were, into a hole made by a similar machine in the ground where it is to grow.

Mr. Spencer's contract with Col. Baker requires him to plant 75,000 trees. The ground was first plowed and then rolled. Five wells were sunk, one at each corner of the field and a large one in the center. These are supplied with force pumps by which the water is raised into tanks. A fine quality of water is struck in each of these wells at a distance of about three feet from the surface. The grove is laid out with drives from the entrance, facing the county road, to each of the wells on the boundaries, and these are connected with avenues converging to the large central well. An open circle, about 120 feet in diameter, is left at this well, where the Colonel intends to lay out arbors and grounds for picnics, etc.

How the Work is Done.

The trees are planted in rows running parallel with the county road. They are laid out in quincuncial rows, each quincunx of trees occupying a square of 12 feet. Thus a line 252 feet in length, marked out every 12 feet, is stretched and fastened to pegs. Men with spades then dig out a gutter of earth and sink a cross cut two inches from the line. This marks the exact spot where the tree is to be planted. Men then come along armed with the planting machines. They first take out a plug of earth about six inches deep and an inch and a half in width, with one of the machines which is without a tree; then they insert a planter containing a tree into the hole, push down the cylinder with the thumb, and presto, the tree is adjusted in its place. Then follows a man with a heavy cast iron pounder, opened in the center and rounded at the end to a convex shape. The tree passes through the central aperture, the pounder is pressed to the earth, and when withdrawn the dirt is closely packed around the plant and left in the shape of a bowl. Then a man comes along with water and fills the bowl. Some time afterwards dry sand is spread over the moisture surrounding the plant, and it is thus preserved from insects, which will not remain in dry sand, while the process of evaporation is retarded by this surface layer. We timed the men while they were planting a line of trees, and find that it took them just one minute and a half. At this rate they can plant 6,300 trees a day—that is, a gang of men consisting of 17, engaged immediately and incidentally in the work. The average is about 6,000 trees per day for such a force so that from the time of getting fairly at work it would take about 13 days to plant the 75,000 trees contracted for. There are portions of the field where the process of planting is not so easy as in that we have described. At some points the earth is baked almost stone hard to a considerable depth. Here

Auger Holes are Bored.

By men with the Champion posthole auger, to a depth of about two feet, where moist soil is met. This hole is filled with water from carts that are kept constantly moving between the tanks and the holes. The water soon softens the walls of the holes and disappears. They are then filled with a fine loam, and in this the trees are planted. This portion of the work is slower than any other, but a large gang of men are employed with augers and rapid progress is being made.

Mr. Spencer took us to portions of the field where trees had been planted over a week, and we found them getting along vigorously.—*Los Angeles Express.*

Horticulture.

What is the Difference in Fruit Driers?

Editors Press:—As fruit drying by the more rapid process of machinery has become an all-absorbing question, we would most respectfully inquire of those who know, what the scientific difference is between the six or seven fruit driers to which our attention is daily called. Is there a different chemical action, brought about by the different machines by which our fruit is dried? If so, what is it, and to what extent does one of these machines hold it over the others?

The "Alden process" has been before the public some time. What does the word "process" mean in this case? Will the Alden men "arise and explain?" Their process is secured by a patent and cannot be lost by an explanation, and they will save fruit growers from buying many inferior machines, and our tables from being burdened with inferior dried fruits, if they will show, in a practical manner, wherein they do really operate on a "superior process" with the Alden drier. This is a year of an abundance of fruit, and the fruit resources of this coast are just beginning to be fairly developed and will increase annually; and if there is an essential difference in these fruit driers, we want to know it. We want to know which one holds the scientific superiority. If there is in nature's laboratory a "higher law," and this law is applied by any chemical "process" by any one of the many fruit driers, by which our fruit is made better and rendered more palatable, the fruit growers should know it, and the common interest of men and the commerce of the world demand that these facts be set forth in a practical light, and the interest of all subserved by fruit men using the machine that applies this "higher law" in the "Alden process."

For ages past (and it is yet prevalent in the public mind) men have held the idea that the application of heat, sufficient to evaporate the water and remove it from fruit, was all that was necessary, and of late years the better talents of men have been employed in inventing machinery to apply this heat, and the point to which all their exertions have been directed, and are yet directed, is to construct fruit driers in such a manner as to keep a constant current of hot air passing through the fruit to be dried, in a way to remove the water out of the fruit, by evaporation, the most rapidly, and leave all the finer qualities of the fruit behind. Now, if the "Alden process" holds no "higher law" than this, then there are other machines that do this work more rapidly and at less cost than the Alden drier. We hope, Mr. Editor, for the benefit of all your subscribers, that you will allow the free use of your valuable paper to all inventors, to explain fully the principles upon which their fruit driers are constructed, and the discussion of the best scientific plan for drying fruit. Inquirer.

Santa Rosa, June 12th, 1876.

[As the subject is timely, we will give space to a moderate and calm discussion of the questions involved, if any one can throw light upon Inquirer's questions.—Eds. Press.]

Poultry Yard.

M. Eyre, Jr., Napa, Cal., Corresponding Editor of this Department.

Poultry Notes.

Ventilation.

One of the most essential requirements to success with poultry is proper ventilation. Now that the warm weather is at hand, it is imperatively necessary to the health of our fowls. Provide for a ventilation over the fowls. The draft must not be on or under them, or it will most certainly induce snuffles, roup, etc. During summer let the windows and ventilators remain open constantly. The fowls are better and hardier for it.

Let Your Fowls Roost Out.

At present time of year those who are so situated that they can, will find it beneficial to their fowls to shut them out of the poultry house, and make them roost in the trees. They are hardier, healthier and more growthy for it, and far less liable to be infected with lice. Young stock, especially, as soon as left by the hen, should be encouraged to roost in the trees. They may be allowed to remain out until the first rains. It is very rare that fowls thus raised are troubled with roup or snuffles.

The Season for Lice

Is now at hand. Watch your sitting hens closely, and, also, the nests and perches of your poultry houses. If you set a hen be sure she is free of vermin. Dust her with carbolic powder, as already directed in the Press of January 29th. Snuff or flour of sulphur is also good, but not always effectual. Carbolic powder is better than either. If the powder is not easily obtainable, get some of the crude acid, dilute it with water, and sprinkle the hay or straw with it, also putting some into the cracks and joints of the nest boxes. A still better way to use it is to put it in whitewash, and thus apply it to the nests, perches and walls of the poultry house. Clean the houses. Paint the perches and cracks with coal oil if troubled with the small midges or hen lice.

Keep Fresh Water by Your Fowls.

During the hot summer weather, see to it that your fowls have an abundance of pure, fresh water. Whatever device you use, place it in some shady place. Water vessels of any kind, under the influence of the midday sun, absorb the heat and soon render the water unfit to drink.

Sitting Hens.

Good chicks of the Asiatic breeds may still be raised from eggs set this month. And with the earlier or quicker maturing varieties, such as Leghorns, Hamburgs, Houdans, Crevecœurs, etc., as fine birds can be raised from June and July broods as from earlier hatchings. Those who have been unsuccessful in their early clutches, have still a chance to raise some fine breeding stock for next season.

Lice—Carbolic Powder.

It is utterly impossible in my experience to keep fowls free from lice during our long dry season, except by the use of this powder. I had tried everything I ever saw mentioned and found none effectual until I used carbolic powder. Among every flock of chickens I look at this time of the year I see the signs of lice, often the late hatched chicks drooping. I am told by those who ask me to look at their flocks that they find it useless to try to raise chicks during this hot dry season. My reply is that there will be no difficulty if they be kept free of lice. The majority indignantly deny the presence of lice on their chicks; but I have seldom failed to show them when the chicks were caught. On the head or under the throat in every case I found these large "head lice," which so soon cause the death of otherwise healthy chicks. If any signs of drooping appear the chicks should be caught and dusted in among the feathers with carbolic powder. An old pepper box (or yeast powder can with holes punched in the lid) can be used. Then the top of the head and under the throat should be anointed with a preparation of sweet oil (or lard) mixed with the powder into a thick paste. The young will then soon regain all their sprightliness and vitality. If the directions already given in the Press for setting hens are followed, eggs can be set and chicks safely reared during our hottest and dryest months. M Eyre.

Liability of Manufacturers of Illuminating Oils.—As many persons are using oil instead of gas the explosive or non-explosive nature of the former has become a matter of unusual interest. The supreme court of Pennsylvania recently examined in a case before it the question of liability for injuries resulting from explosion. It appears that the manufacturer and original seller of the oil, provided he had knowledge of its dangerous quality, is responsible. The court says: "When the article is thrown into the current of trade on the faith of the affirmation of its manufacturers that it is fit oil for light, and can be safely used in the family, or where it may be required for illumination, they cannot follow it or avert its injuries, or determine how much of the responsibility is due to others. * * * One who knowingly makes and puts [such an article] on the market for domestic and other use cannot claim exemption from liability * * * because he has sent it through many hands

Patrons of Husbandry.

THE HEADQUARTERS of the California State Grange are in the Grangers' Building, northeast corner of California and Davis streets, over the Grangers' Bank of California and California Farmers' Mutual Fire Insurance Association. Master, J. V. WEBSTER; Secretary, AMOS ADAMS.

The Grangers' Business Association of California is on Davis street, north-east corner of California.

Grangers' Business Association.

It becomes necessary to remind those who have done and wish to do business with the Grangers' Business Association, of the change of business manager, Mr. T. J. Brooke retiring from the house and Mr. Daniel Inman assuming management of the same. Therefore it is desirable that all communications for or consignments intended for our house, should hereafter be sent to the "Grangers' Business Association, San Francisco."

AMOS ADAMS,
Sec'y Grangers' Business Association

COPIES OF THE CONSTITUTION AND BY-LAWS of the National, State and Subordinate Granges, containing the latest amendments, are now printed and for sale at this office, at five cents per copy, post-paid. They contain blanks for inserting the name and No. of the Subordinate Grange.

P. OF H.—Subscribers who pay fully one year ($4) in advance for the PACIFIC RURAL PRESS can receive the CALIFORNIA PATRON *free*, besides other premiums. See our premium list in another column.

From the Granges.

Sonora Grange.

EDITORS PRESS:—In the common course of events I found myself in Sonora last Saturday attending to the ordinary business of the Grange. It is really pleasing to congregate semi-weekly with kindred spirits in the discharge of incumbent duty, and to gain new ideas regarding the workings of our Order. Opportunity is presented to strengthen the bands which bind us together, broaden our charities and extent our knowledge, learning to live, fraternally speaking, nearer to the divine requirements of our nature.

As Lecturer we made a few remarks on "The Grange." At the conclusion Past Master Captain Turner invited the brothers and sisters present to partake of his hospitality and make a visit to his really elegant mansion, beautiful garden, etc., at the conclusion of the services, which invitation was willingly accepted by many of the brothers and sisters.

Captain Turner has one of the finest gardens in the vicinity of Sonora, and also a splendid cabinet of minerals in a room devoted to that special purpose. Towards the street there is a row of splendid fruit-bearing mulberry trees, loaded with luscious fruit. This was my first opportunity of enjoying a feast from the fruit mulberry. They seem more like the fruit of a vine, like the strawberry, than the production of a large tree. The mulberries and strawberries suffered by the happy Patrons patronizing the luscious fruit tree of charge. We spent an hour very happily and sociably as guests of Bro. Turner.

This is the spirit which ought to actuate the good Patron in all the relations of life. The Captain was richer by the giving than if he had shut himself up in selfish exclusiveness. The very use of our Order is to open up the dormant faculties of our better nature, bringing to the surface the God-like, which is too often confined in its prison house, because of the selfishness of a too selfish world.

We look upon the Grange as a fruitful garden, producing good fruit, or allowing weeds sometimes to spring up. Hence, home, wife and children are God's garden upon earth. The fruit should be cultivated so that no weeds will appear in our record book.

Sonora, the seat of Tuolumne, is called the "gem of the mountains," and with truth, for it is now a lovely spot. Her gardens are in full bloom. Her shade trees are well cultivated. Her streets well watered and kept clean. Nature has given her many blessings a beautiful and healthy climate; a rich mineral soil, surrounded by grand old mountain scenery, pure streams of crystal water, fruit which cannot be surpassed in variety or richness of flavor. A fraternal spirit animates her citizens. They are alive to all enterprises which might advance her prosperity. No wonder her former citizens yearly sing the praises of "Old Tuolumne" around the bay. They never can forget the richness and grandeur of these grand old mountains, and the life-giving atmosphere which breathes all around.

Sonora Grange is a live institution in the midst of much which the lovers of nature ever see to admire. I do not remember of hearing the "sick question" answered in the affirmative; health and smiling countenances greet you as you grasp the fraternal hand at meeting and at parting, for we expect to meet again in the character of a friendly brotherhood, without having the shadow of a doubt. May the second Centennial of our nation's birth witness the fulfilment of our dreams in regard to the Patrons of Husbandry, is our earnest prayer.

JOHN TAYLOR.

Mount Pleasant, June 13th, 1876.

Florin Grange.

EDITORS PRESS:—An error occurs in the issue for Saturday last under the heading "Florin Grange." Florin Grange has no Secretary of the name mentioned, neither did that Grange have a strawberry festival. And that reminds me of how many good things we pass over in our journey through life. Right here in this strawberry-producing locality, where the finest strawberries in the State are grown and shipped to market by the ton, we were, one and all, too busy too assemble for even an hour's festal recreation.

As regards Florin Grange, it proceeds steadily on its mission, does not have a large accession in numbers, or an extra large attendance at the regular meetings. Here, as elsewhere, the novelty of the movement is over, has found its level, but like old John Brown it still goes marching along, determined to succeed in its purpose. A.

Florin, June 18th, 1876.

Temescal Grange.

At a recent meeting two degrees were conferred upon the same candidate, bringing him up even with the class. This shows the convenience gained by the adoption of the amendment to the National Grange constitution offered and advocated by Worthy Master Webster, at the last session.

The opening of the "contribution box" and reading of its contents by Secretary Collins, at the meeting on Saturday last, was attended with considerable merriment and interest. Contributions to be read and discussed at the next meeting are solicited from Patrons at home and abroad. It was suggested that every alternate meeting of this Grange be held in the evening, and that on such occasions all interested be invited to join with the Grange in discussing agricultural and other beneficial subjects. It is desirable that more home and farm subjects be debated in the Grange and reported to readers abroad for the good of all concerned.

Anticipating a "protracted Fourth of July," Master Bagge announced the next harvest feast at one o'clock, July 15th. Patrons generally, and members particularly, are invited to attend promptly.

The Grange Reviving.

Under the above heading the Sacramento *Record-Union* writes at length concerning the difficulties which the Order has surmounted, and notes the indications of victory in the following words: Under all these circumstances, and through all these trials and troubles, the honest and thinking members of the Order saw the silver lining to the overhanging cloud, and maintained and proclaimed the final resuscitation of the Order, and the final securing to the farmers every reasonable and honest benefit and advantage the Order was designed to secure. Such members had never looked upon the Grange as a medium to personal or political advancement, had never entered into secret rings or cabals to secure them, but had steadily and quietly stood for the purity and honesty of the Order, not only towards its members and itself, but towards all other classes. These members maintained that political advantages, either collectively or to individuals, were not among the objects of the Order, and political ambitions must not be gratified through the instrumentality of the Grange. That while the social and educational sides of the Order were very necessary and important, the key to great success must be looked for in the mutual confidence and mutual co-operation of the members in business matters. But that reasonable anticipations and reasonable expectations only must be encouraged and promised. We are glad to note that these ideas are at length triumphing, and that as a consequence a reviving spirit is abroad in the land, and a returning spirit of confidence and hope is supplanting the lukewarmness that lately prevailed. The Granges have been officered with more moderate and more competent men, the ritual principles and purposes of the Order are more fully understood and more uniformly and with a better spirit carried out, and the Order has a stronger and more permanent hold on the good sense of the members than at any previous period in history. The timber for the building which the farmers of this part of the country have planned, has been seasoned, and all the shaky and snowy pieces rejected, and the permanent building will soon be erected.

FARMERS' PRODUCE EXCHANGE.—We refer our readers to the new advertisement of the "Grangers' Business Association" in our columns. It is the desire of the stockholders and managers of this house to build up a large exchange trade on strictly fair business transactions between producers and consumers. All producers are solicited to consign their goods to the "Grangers' Business Association," to be disposed of on uniform terms and conditions for all. Farmers who have to purchase any kind of domestic produce or general merchandise in San Francisco are invited to patronize this farmers' association, at No. 106 Davis street.

GRANGE LIST.—We have received from E. M. Waite, of Salem, Oregon, copies of the "Grange List of the Patrons of Husbandry of the State of Oregon, Washington and Idaho for the year 1876." The pamphlet contains full lists of officers and deputies, with list of Subordinate Granges, giving Masters and Secretaries with postoffice addresses. The pamphlet is neatly printed and will be useful for reference.

In Memoriam.

NORD GRANGE has sent us the following resolutions expressive of the feelings of the Grange at the death of BRO. JOHN NEWTON MONTGOMERY:

WHEREAS, It has pleased Divine Providence to remove from our midst our beloved brother, JOHN N. MONTGOMERY, we deem it a sacred duty to place upon record a memorial of our appreciation of his many virtues and charities inculcated in our Order; beloved and respected by all who knew him, the memory of this good man will ever be cherished by us.

Thus star by star declines,
Till all are passed away,
As morning high and higher shines
To pure and perfect day;
Nor sink those stars in empty night
But hide themselves in heaven's own light.

It is therefore

Resolved, That while we bow in submission to His holy will, yet we fully realize and deeply feel the loss which we not only as Patrons, but the community have sustained in the death of our beloved brother.

Resolved, That we tender our sincere and heartfelt sympathy to his sorrowing family and relatives.

Resolved, That a copy of these resolutions be transmitted to the bereaved family, and also published in the PACIFIC RURAL PRESS.—[Committee: J. B. Clark, P. Kern, F. D. Strong.

Agricultural Notes.

California.

AMADOR.

FINE WHEAT.—*Ledger*, June 17: Reports have been circulated to the effect that Amador county, and especially the vicinity of Jackson, is unsuitable for agriculture. Facts are stubborn things. However we may quibble over statements pro and con, the logic of facts is usually regarded as conclusive and final. Hence, as it in mockery of all pronunciamentos against the fertility of Amador's soil, we have been presented with a few ears and stalks of wheat which we believe will bear comparison with any in the State. The stalks measure five feet six inches in length, the ears are correspondingly long, and the grain is plump and fine. The wheat was grown on the ranch of J. M. Little, about one mile out of Jackson. He has about seven acres of grain equally fine, all rapidly approaching to maturity. This is the first season that he has allowed his wheat to ripen, and is surprised at the promise of such an abundant yield. So far from the foothills being unfruitful, we believe they are destined to outrival the plains in the abundance, variety and quality of their productions.

FRESNO.

SCALE BUGS.—*Expositor*, June 14: Persons having orange trees, especially trees purchased in Los Angeles, should examine them carefully for scale bugs. The young insects are now forming on the trees and unless they are destroyed will ultimately cause great injury to the plants. Those who are not acquainted with the insect can readily discover it by examining their orange and lemon trees carefully The insect resembles a small watery blister and is of a light grayish color when young, changing to a darker hue as it grows older. Numerous small red ants will be discovered on trees affected with scale. To kill them take a brush or a piece of cloth and then rub them off.

KERN.

A SPLENDID WHEAT FIELD.—*Courier-Californian*, June 15: Col. Keyes has kindly presented us with some samples of wheat from a field of 200 acres, on his farm four miles west of town. They are very choice, and would compare favorably with the best in the world. We had the pleasure of looking over the field, and such samples can be obtained in any part of it. Col. Keyes has spent the last nine years raising grain in California, and says he has never seen anything equal to it. The field has been irrigated only once, in March last, and is as dry land as can be found on the island. The cool weather has retarded the ripening, and it will not be fit to cut for ten days yet, when he expects to reap an average of 45 bushels to the acre. Any one who has ever questioned the fact of this being a wheat growing county should ride out and satisfy himself. The road leads through cultivated fields nearly the whole distance.

LAKE.

THE CROPS.—*Bee*, June 15: We gather the following information regarding the crops from Mr. Lindsey Carson, who is farming in Big valley, about five miles from here. The hay is generally cut throughout the county, and the yield is good, averaging about three tons to the acre. Farmers will soon commence cutting grain, and there will be a fair average crop to the acre. It is estimated that there will be from 30 to 40 bushels of barley to the acre, 40 of wheat, and oats from 40 to 50 to the acre.

MARIN.

CHEESE FACTORY.—*Journal*, June 15: The creditors of James Payne, of the Tomales cheese factory, last week concluded to form a joint stock company, each taking stock to the amount of his indebtedness, and go on with the business. We have heard Mr. Wm. Rowland mentioned as the probable superintendent. Another meeting was appointed for yesterday (Wednesday), at which Mr. Thompson, formerly of Petaluma, was to be present and assist in perfecting the organization of the new company, and starting operations.

GRAPES.—The first bunch of grapes of the season that we have seen were from the hot house of J. D. Walker, who sent them to an invalid friend, last week.

MONTEREY.

DAIRYING IN SALINAS VALLEY.—*Index*, June 15: Dairying is a prominent industry in Monterey county, and especially so in the great Salinas valley. Hiram Corey, of the Buenavista ranch, about five miles from Salinas City, has 500 cows, of which he is at present milking 425. For four months in the year he makes 11,900 pounds of butter per month, equal to 47,600 pounds for the four months; during the remaining eight months he makes 200 pounds a day, or 6,000 pounds in a month, making a total of 95,600 pounds for the whole 12 months. The average price realized for the butter is 37½ cents per pound, which makes the year's product foot up the snug sum of $35,850. In addition to this Mr. Corey fattens from the milk and sells $3,000 worth of hogs during the year, making the total proceeds of his dairy $38,850 per annum The net profits of his business probably do not fall much short of $15,000 per year. The most extensive dairying establishment in Monterey county, or in the State, is that of Hon. C. S. Abbott, situated some three miles from Salinas City. Mr. Abbott has in the neighborhood of 1,500 cows, and is now making 900 pounds of butter per day. He raises large amounts of corn and beets with which to feed his cows. This season he has 30 acres of beets which will yield 50 tons to the acre, some of the beets weighing over 100 pounds each.

NAPA.

THE HARVEST.—A. G. Clark & Co., of Napa, in writing to the *Bulletin*, report 26 000 acres in Napa county under wheat this year, which will yield an average of 15 centals; under barley, 1,200 acres, with an average yield of 20 centals; under oats, 2,000 acres, with an average yield of 10 centals per acre; under corn, 1,500 acres, with an average yield of 20 centals per acre. It is the best crop that has ever been raised in Napa county since wheat farming has been introduced here, and is probably 25 per cent. better than the crop of last year. It is estimated that there will be a surplus of 292,500 centals of wheat for export, 180,000 centals barley, 20,000 centals oats and 75,000 centals corn.

SONOMA.

AN ALFALFA FIELD.—The *Democrat* of the 10th gives the following account of the Hon. W. S. M. Wright's 100 acre alfalfa field: It was seeded in April, 1874. He mowed it twice the first year and the same fall pastured a large number of lambs in the field. Last spring, in April, he fenced off 35 acres, and put 3,000 head of sheep on it to eat out some rape which had grown up with the alfalfa. This band of 3,000 sheep ate down the pasture in about a month. They were taken off and put back in four weeks, kept three weeks longer and were again removed, the alfalfa seeded in October and another large band of lambs turned on it and pastured until the fall rains, when they were removed. The crop is now being cut for hay and will average over two tons to the acre. We have a handful as a sample, which measures six feet six inches in length. Mr. Wright, who is careful in his statements, estimates that the field when well set will keep 20 sheep to the acre. He will feed the hay this winter to sheep to be fattened and sold in the San Francisco market.

THE POTATO.—*Flag*, June 15: The late spring rains assured a good potato crop. The early ones are thoroughly maturing and will yield well; the soil was so thoroughly wet that a bountiful late crop is confidently expected. Raising potatoes in this valley can be made a complete success; some farmers think they will pay better than any other crop, on our best lands. It is time our farmers are waking up to this matter, so as to produce enough, at least, to supply the demand for home consumption, instead of importing inferior potatoes from other parts of the State.

SUTTER.

WHEAT SAMPLES.—*Banner*, June 15: A few days ago we were shown samples of "Proper" and "Pride of Butte" wheat from B. F. Walton's farm. The heads measured over six inches in length and the kernels were large and well developed. Both of these varieties were first introduced in this county from stray heads gathered by some of our observing farmers, and now they have come into general favor, some claiming advantages for one or the other according to the nature of the land or mode of cultivation. Mr. Walton has 500 acres of volunteer and winter sown of these varieties, which he expects will yield over 30 bushels to the acre. This, with about 150 acres summer fallow, that bids fair to astonish the natives, should be sufficient for one man's share.

YOLO.

HARVESTING.—*Democrat*, June 15: Our farmers have commenced harvesting their wheat in earnest, and by next week the work will be at its height. The kernel is plump, the heads unusually large, and the stand tall and thick; consequently the yield per acre must be very large. The very hot weather of the past three days has made it hard upon hands and animals, but yesterday the wind got round to the south, from which direction come our cool breezes, and we may now look for more pleasant weather. Threshers will be kept busy a long time this season, and cannot fail to make it a profitable one.

THE CROPS.—*Mail*, June 15: Talking with some of our best farmers, we are informed that the crop will be above an average. It will be safe to say that it will average 30 bushels to the acre, and that the area cultivated is as much as one-fourth greater than ever before—which will give us about 90,000 tons. There is but little of the grain backward, which calls for a large army of laborers and an immense amount of machinery to take care of it.

Breeders' Directory.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

POWERS & STANTON, Sacramento, Cal., breeders of A. J. C. C. Registered Jersey Cattle. Cows and Calves for sale at low rates. Address Luther C. Powers.

A. MAILLIARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

PAGE BROTHERS, 302 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., breeder of Jersey cattle. Has Jersey bulls for sale—various ages—at $40 to $150.

SHEEP AND GOATS.

EDWARD FRISBIE, on line of Cal. P. R. R., near Vallejo, Pure Bred Leicester Sheep For Sale.

GARNIER BROS., Encino Ranch, Los Angeles Cal., breeders of pure French, Spanish, and Saxon Merino Sheep. Price, from $25 to $50, each.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co. Cal., breeder of Pure-Blooded French Merino Sheep

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

B. F. WATKINS, Santa Clara, breeder of thoroughbred Spanish Merino Sheep.

M. EYRE, Jr., Napa, Cal. Thoroughbred Southdown Sheep. Rams and Ewes, 1 to 2 years old, $20 each Lambs, $15 each.

T. A. WILSON, Grayson, Stanislaus county, Cal. Breeder and Importer of Spanish Merino Sheep.

POULTRY.

M. EYRE, Napa. Bronze Turkeys, Emden Geese Choice Fowls, Pigeons, Rabbits, Ferrets.

M. FALLON, Cor. Seventh und Oak streets, Oakland. Bronze Turkeys. Choice Fowls for Hatching from Pure Bred Fowls.

GEO. B. BAYLEY, Cor. 16th and Castro sreets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

MRS. L. J. WATKINS, Santa Clara, Cal. Premium Fowls, White and Brown Leghorns, S. S. Hamburgs, L. Brahmas, B. B. Red Game Bantams and Aylesbury Ducks. Also Eggs.

W. H GROVES, Stockton, Cal. Eggs for sale from Choice Pedigree and Selected Light Brahmas, White and Brown Leghorns. For prices and description address as above with stamp.

Live Stock Notices.

Pure Blooded French Merino Rams

And 100 Choice Young Ewes

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda county, Cal., near Niles Station, on the Western and Southern Pacific railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proven to be the heaviest shearers in the world.

☞NEW MILCH DURHAM COWS FOR SALE.

We respectfully call the attention of Farmers and Stock Raisers to our large and superior flock of Angora Goats. We have about 300 head of Pure Breed Angoras to select from, some of which are superior to any in America. Our prices are set according to the merits of the animal, and everything guaranteed to be as represented. Send for circular.

LANDRUM & RODGERS,
Watsonville, Santa Cruz Co., Cal.

THOROUGHBRED SHEEP FOR SALE.

The undersigned offers for sale his entire herd, consisting of 150 head of Thoroughbred Spanish Merinos, Bucks and Ewes. The Sheep are good, and in good condition, and will be sold reasonable. For further particulars, enquire of

A. C. PAULSELL,
Stockton, Cal.

GRANGERS' BUSINESS ASSOCIATION,

Incorporated Feb. 10th, 1875. Capital Stock, $1,000,000.

OFFICERS and DIRECTORS:

DANIEL INMAN, (PRESIDENT).	AMOS ADAMS, (SECRETARY).	THOS. FLINT.
R. C HAILE, (VICE PRESIDENT).	THOS. UPTON.	G. P. KELLOGG.
JOHN LEWELLING, (TREASURER).	I. C. STEELE.	W. L. OVERHISER.

O. HUBBELL. D. CAMPBELL.

SHIPPING and COMMISSION HOUSE,

Grangers' Building, - - - 106 Davis Street, S. F.

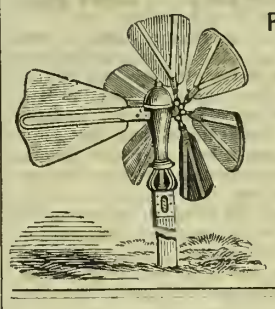
Consignments of Grain, Wool, Dairy Products, Fruit, Vegetables, and other Produce solicited, and advances made on the same. Orders for Grain and Wool Sacks, Produce, Merchandise, Farm Implements, Wagons, Etc., solicited and promptly attended to.

We do a strictly Commission Business, and place our rates of Commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

Consignments to be marked Grangers' Business Association, San Francisco. Stencils for marking will be furnished free on application.

DANIEL INMAN, Manager.

AUTOMATIC PUMP.



Raises water by compressed air to any hight or distance. Windmill can be set at any distance from the well or spring if required to get a good exposure to the wind.

SEND FOR CIRCULAR.

J. E. HOLLOWAY, Gen. Agent for Pacific States,

31 Beale Street, San Francisco,

WHERE THE PUMP CAN BE SEEN IN OPERATION.

EXTRAS! EXTRAS!!

Headquarters for Extras for the following Harvesting Machines:

CLIPPER, WOOD'S EAGLE, RUSSELL'S AND WORLD MOWERS AND REAPERS, DAYTON AND CHICAGO

PITTS SEPARATORS AND HORSE POWERS, HAINES' AND CASE HEADERS.

Orders filled with utmost despatch.

LINFORTH, KELLOGG & CO., - - - 3 & 5 Front St., San Francisco.

THOROUGHBRED SHORT-HORN CATTLE FOR SALE.

The undersigned offers his entire herd of Thoroughbred Cattle for sale on very reasonable terms. Also, one fine Graded Cattle.

JOHN BREWSTER,
Galt, Sacramento Co., Cal

THOROUGHBRED SPANISH MERINOS.

Sixty one and two year old Spanish Merino Rams For Sale, also 100 Ewes and Lambs, all California bred, from stock imported from Vermont, and as good as any on this Coast. Prices to suit the times. Address, B. F. WATKINS,
Santa Clara, Cal.

FOR SALE,

AYRSHIRE BULL—4 years old.

ENQUIRE OF

A. B. ROWLEY, Mayfield, Santa Clara Co.

OAKLAND POULTRY YARDS,

Cor. Sixteenth and Castro Streets, Oakland.

Constantly on hand and for sale choice specimens of the following varieties of Fowls:

Dark and Light Brahmas, Buff White and Partridge Cochins, White and Brown Leghorns, Dorkings, Polish Hamburgs, Game and Sebright Bantams, Aylesbury and Rouen Ducks.

ALSO, FOR SALE,

20 of the Largest Bronze Turkeys in America.

Eggs for sale after January 1st.

NO INFERIOR FOWLS SOLD AT ANY PRICE.

SATISFACTION GUARANTEED.

For further information send stamp for Illustrated Circular, to

GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

H. K. CUMMINGS. 1858. H. H. HALSTON. 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer

Gloves Made to Order

At prices most economical to customers, at the SACRAMENTO GLOVE FACTORY of I. W. Lusk, Tenth St., between J and K Sts., Sacramento. None but the best quality of California tanned skins used. Ladies' and Gents' colored, plain and Indian dressed riding and common gloves and mittens on hand, or made to order on short notice. ☞ Send your size or number and you can order by mail. Satisfaction gusranteed. Ladies, farmers, miners, engineers, and all requiring serviceable gloves are invited to call at the factory.

Grangers' Bank of California,

42 California Street,

SAN FRANCISCO.

Authorized Capital, $5,000,000.

OFFICERS:

PRESIDENT.....GILBERT W. COLBY.
MANAGING DIRECTOR.....C. J. CRESSEY.
CASHIER.....ALBERT MONTPELLIER
SECRETARY.....F. A. CRESSEY.

The Bank was opened on the first of August, 1874, for the transaction of general banking business.

California Farmers' Mutual Fire Insurance Association.

No. 38 California Street, Grangers' Building.

CAPITAL, $200,000, GOLD.

OFFICERS:

J. D. BLANCHAR	PRESIDENT
I. G. GARDNER	VICE-PRESIDENT
G. P. KELLOGG	TREASURER
A. W. THOMPSON	ATTORNEY
FERD. K. RULE	SECRETARY

TRUSTEES:

J. D. BLANCHAR	S. F.	I. C. STEELE	San Mateo
G. P. KELLOGG	Salinas	G. W. COLBY	Butte Co
I. G. GARDNER	S. F.	A. WOLF	Stockton
CHAS. LAIRD	Salinas	C. J. CRESSEY	Oakland
URIAH WOOD	San Benito	J. C. MERRYFIELD	Dixon
A. B. NALLY	Santa Rosa	E. W. STEELE,	S. L. Obispo
A. W. THOMPSON	S. F.	C. S. ABBOTT	Monterey
A. D. LOGAN	Colusa	DR. T. FLINT	Hollister

Statement, December 31st, 1875.

TOTAL RISKS WRITTEN	$3,845,189.00
TOTAL PREMIUMS	79,301.72
LOSSES PAID	821.00
ASSETS DEC. 31st, 1875	170,907.41

☞ Farm Property insured at actual cost on the Mutual Plan. Other desirable property insured, and rated according to merit.

THE LAMB KNITTING MACHINE

Is the Only Machine that can Knit all sizes of work, and narrow and widen it; that can shape and complete, without hand-finishing,

Seamless Hosiery, Gloves and Mittens, or knit them in all sizes; or knit ribbed, double and fancy stitches for Underwear, Jackets, Shawls, Scarfs, etc. It knits over 25 different kinds of garments. Over 100 per cent. profit in manufacturing knit goods. Send for illustrated circular. Address,

Lamb Knitting Machine Co.,
120 Sutter St., Room 39, S. F.

ASK YOUR GROCER OR OIL DEALER FOR
"ELAINE"
THE FAMILY SAFE GUARD OIL

50 Visiting Cards, with your name finely printed, sent for 25c. We have 100 styles. Agents Wanted. 10 samples sent for stamp. A. H. Fuller & Co., Brockton, Mass.

FRUIT JARS.

The preserving of Fruits by hermetically sealing in glass jars has increased rapidly in the last eight or ten years, so that to provide a store of fruit and vegetables in their natural condition for winter use is becoming not only a necessity, but is a provident measure, alike conducive to health and pleasure.

The Gem and Porcelain Lined Jars

Possess all the advantages and none of the disadvantages of other patent jars, and are in fact the only reliable self-sealing jars in market. Each makes its joint on the flat shoulder, blown in the glass, on the outside of the mouth of the jar, and below the top. The surface of the shoulder on which the joint is made is perfectly smooth. The rubber being outside and below the top of the jar, the syrup cannot be exposed to it, to taint and discolor it; at the same time its shoulder, blown in the mold, on which the rubber rests, corresponds with the thread on which the screw fastening works, so that it insures equal pressure on all parts of the cap and rubber ring, thereby insuring a tight joint. These jars have arrived so near perfection there is no hesitation in warranting every jar to preserve fruit an indefinite space of time if care is taken.

MASON'S PORCELAIN LINED

THE GEM.

THE GROOVE RING.

This jar has a groove in the top of ring in which a tin cap is placed, after which the wax is poured into the groove, thus making a hermetic seal. This is a very reliable and cheap jar, costing about one-third less than the patent jars.

The testimony of physicians, added to the experience of many, corroborate the belief that acid fruits preserved in tin cans are very unwholesome.

San Francisco and Pacific GLASS WORKS,

(Incorporated June 9, 1876.)

CARLTON NEWMAN, Manager.

OFFICE and WORKS, KING STREET,

Near foot of Fourth,

MANUFACTURERS of Vials, Bottles, Minerals, Carboys, Demijohns, Patent GEM Fruit Jars, GROOVE RING Fruit Jars, etc., and Sole Manufacturers of NEWMAN'S PATENT ELASTIC DEMIJOHNS, and PATENT BOX DEMIJOHNS.

CALVERT'S CARBOLIC SHEEP WASH,

$2 Per Gallon.

T. W. JACKSON, San Francisco, Sole Agent for California and Nevada.

The Pioneers.

[By G. H. Jessop.]

The days of fairy tales are done
Yet, as we backward turn the pages,
We oftentimes may light on one
Whose moral suits another age.

The sleeping beauty, Progress, lies,
And lay for years in wilds unknown;
Heaven's light within her slumbrous eyes,
Earth's choicest gifts around her strown.

The world rolled on and still she slept
Where she had rested ages since,
Till softly to her pillow stepped
With waking kiss the fairy prince.

So hardihood her slumbers broke,
Disclosing charms concealed for years:
The sleeping beauty, Progress, woke
To join the hand of pioneers.

She first had sought this Western land
With old Columbus ages since,
Now through our mountains, hand in hand,
She wanders with her fairy prince.

She dug the gold from every hill,
And trained the vine on every slope;
Her wheat fields all our valleys fill,
Her presence fills our hearts with hope.

Wealth, plenty, peace we owe to them
Who first unlocked the golden gates,
And in Columbia's diadem
Set this, the pearl of all the States.

A wild unknown before they came,
To-day the proudest of her peers,
What wonder if we love their name
And reverence our pioneers.

Ay, strong of limb and stout of heart
And fearless through the world to fare,
They drew Dame Natura's veil apart,
And showed mankind the secrets there.

They showed mankind how fair she was,
They laid her bare from pole to pole,
The mountains bowed to let them pass,
The forests opened like a scroll.

They left their mark where'er they trod,
Hot sands or frozen solitudes,
And hewed for other men a road
Through Arctic ice or Tropic woods.

They found this pleasant land a waste,
They saw how great she ought to be,
And toiled until a city graced
The margin of the Western sea.

Pain, want, and many a sleepless hour,
Hunger and thirst were freely borne,
They knew that he who plucks the flower
Hath often to endure the thorn.

The courage hardship cannot daunt,
The energy by naught dismayed,
The brave, light heart that laughs at want,
These were their only stock in trade.

They thought—who will not think at times?—
Of homes made bright by easy toil,
Of castles built in other climes,
Of hopes that grew in other soil.

Perhaps in dreams they heard the breeze,
That rocked the dear old woods of home,
That rustled Southern orange trees,
Or flecked New England's coast with foam.

Or by-gone visions crossed the seas
In breaths from Kentish hop fields blown,
Or sunny, laughing memories
From vine-clad banks of far Garonne.

Yet, if they dreamed, such dreams were short;
They bravely turned to work again,
Ambassadors to Nature's court,
The avant couriers of men.

So grew the State beneath their hands,
The proudest work of modern years,
The richest of the world's broad lands,
Earth's monument to Pioneers.

—*S. F. Chronicle.*

Truthfulness to Children.—A parent, unlike a poet, is not born—he is made. There are certain things which he has at once to learn, or he will have no more influence over his child than if he were a common stranger. To gain obedience you must first set yourself to deserve it. Whatever you promise your little one, however small the thing may seem to you, and whatever trouble it costs you, perform it. Never let the doubt once enter that innocent mind that you say what you do not mean, or will not act up to what you say. Make as few prohibitory laws as you possibly can, but once made, keep them. In what is granted, or in what is denied, compel yourself, however wearied, or worried, or impatient, to administer always evenhanded justice.

Advertising Shame.—The American hangs his head in shame when he sees the public press burdened with revelations of malfeasance in office. He is pained to think that all the world must know how low-toned our political moralities are; how given to thieving and the betrayal of trust are multitudes of our men in responsible positions; what vulgarity of greed is exhibited by those whom the people have honored! It is all horrible, revolting, disgusting, humiliating; but this revelation is a thousand times better than the policy of concealment. A vice laid open to the public eautery is in a much better condition for being cured than one which is permitted to fester in semi-secrecy for personal or class considerations.—*Dr. J. G. Holland; Scribner for June.*

A Centennial Incident.

John Howe, of Marlborough, in 1775 a quiet farming town, was cobbling at a pair of shoes which he had promised should be done within an hour, when he heard that the British were marching on Concord. Being a man of his word, he kept at his work, notwithstanding the excitement and the departure of his townsmen. He had just finished the job when Polly Smith, the young woman who kept the house where he boarded, ran into the shop.

"John! John!" she cried, with glowing cheeks and flashing eyes, "you ought to have been off to Concord an hour ago. Every other man in the village has got there by this time!"

"I wouldn't be any use for me to go, anyhow! I haven't got any bullets," said John.

"Come into the house and run some, then," replied Polly.

"I haven't got anything to make 'em of."

"O, I'll find something for you to make 'em of," and Polly darted into the house.

Seizing every spoon on the dresser, she immediately returned to him.

"Here, take these," she said, "and if you want more I'll get 'em for you."

In those days all the spoons in common use were made of pewter.

John was soon supplied with balls. Taking his old gun, he started on the long walk of fourteen miles, through the woods, to Concord.

Whenever he passed a house, the women and children all cheered him.

Reaching Concord, he found the British were just starting from what is now the Agricultural grounds, on their retreat to Boston.

A wounded "red-coat," lying beside the road, begged John, as he passed by, to put an end to his misery.

"No," said John, "I ain't quite a brute, but I'll just change pieces with you, and leave you to the women."

Exchanging his old gun for the enemy's new musket and ammunition, he joined in the pursuit, and did good service on the way to Charlestown Neck.

John Howe enlisted at Cambridge for the war and fought at Bunker hill. He was in most of our important battles of the seven-years' contest, and never came home until the British had sailed for England. Being hardy, faithful and zealous, he was frequently chosen by Washington for dangerous enterprises. He was one of the most useful men in the army, and on one occasion saved Washington's life. At the end of the war it was Col. Howe who returned to Marlborough.

Polly Smith, during these years, had been spinning, weaving and knitting for the soldiers. She was the first person Col. Howe sought. When, however, he returned her spoons they were of silver, and marked "Polly Howe."

The descendants of John and Polly are among the most highly honored in our country. *Youth's Companion.*

The Pope's Humor.

Pius IX is partly indebted for his longevity to the love of the humorous that is one of his prominent characteristics. The good man is now seventy-eight, and even the weighty matters that press upon him during the sessions of the ecumenical do not prevent the thorough enjoyment of the passing good things. It has been said that the most superb-looking members of the council are the Oriental prelates, but they are not much given to ablution—in fact they are dirty. One of these unclean functionaries was invited to an interview with his holiness. The Oriental bishop could not speak a word of Italian, French or English—nothing but a curious Latin, Arabic and Chaldee. The interpreter carried on the conversation. Before going he asked the papal benediction. Now be it remembered that his holiness is one of the cleanest, neatest old men in the world. He takes a cold sponge bath every morning, and when you see him in his nice white clothes, notice his fresh healthy face, handsome hands and thoroughly well kept appearance, you cannot help thinking of a hearty fat baby just out of the morning nursery toilet; for the white skull cap and silvery hair add to this illusion. Imagine, then, what such a clean old man must have felt while breathing the odor of this Oriental species of prelatical sanctity.

When asked for his benediction, the Pope turned to those who surrounded him, and said, with an expression peculiarly Roman—for these Romans are the most witty, sarcastic people in the world:

"Are you very sure this bishop does not understand Italian?"

"Very sure, holy father."

"Well, then," said his holiness, in Italian, drawing himself up before the kneeling, unclean man, "Dirty and ugly as thou art, I bless thee," etc.

Accuracy.—The truly accurate man neither despises minuteness nor makes an idol of it. He is broadly general when a general statement is what is wanted. He is minutely detailed when minute detail is what is needed. But, whether general or detailed, he is always careful that what he says conveys at once a clear idea and a true idea. Details will sometimes make a statement more clear, sometimes less. He acts accordingly. It might perhaps not be too much to say that details sometimes make a statement truer, sometimes less true. In this case he acts accordingly also.

Have Faith in Your Children.

A lady once told me of a little scene which occurred during her childhood, and, though years of change had come and gone since then, it had left such an impression on her mind that she could never entirely banish it from memory. She was quite a child when it happened, and her mother, a good Christian woman, was yet one of those strict, stern parents who demand and expect, perhaps, too much of their children, forgetting how hard it is even for us grown children, tried in the rough discipline of life, to submit to our Heavenly Father's will and yield instant and perfect obedience to His laws. But this child was gentle and yielding always. I well remember her mild, amiable manners and sweet disposition when we were children together—ever giving up her own will to that of her parents. Above all, she was perfectly truthful; never had her lips framed a falsehood, or uttered one deceitful word; she had never tried to screen herself when at fault, or to escape the punishment of her childish errors. And her mother knew this—knew that her child had never spoken aught to her but the plain, honest truth.

There came a day at school when it was found that some grievous act of disobedience had willfully been committed by one of the pupils, and, in some strange way, it was traced to this little girl. The teacher accused her; she denied the charge, but the proof seemed strong against her, and the teacher even accompanied her home, carrying the accusation to her mother.

It seems an unnatural thing for a parent to do, yet she accepted the teacher's statement in preference to that of her own child, who had never deceived her, and tried by every means in her power to make the little one confess the fault.

"Mother, mother, I did not do it; won't you believe me?" was all the reply she could obtain. For a long time she sat by the child, pointing out to her the horror of falsehood, and beseeching her to confess that she had committed the error and ask forgiveness. The child's spirit became at last so affected, and her whole little being wrought up to such a state, that she actually confessed herself guilty, and asked forgiveness for a wrong she had never committed! From that moment a feeling of reserve grew up between the mother and child, and, though years have come and gone, and the child is grown up to womanhood, she still remembers that dreadful day; not, however, with any undue blame to her mother, "for," she said, "I know she *thought* she was doing right."

Oh, what a feeling of forlorn wretchedness must come over a little innocent child when it sees its mother looking with suspicious eyes upon it, and refusing to believe its expressions of innocence!

Oh, mothers! let your children see that you have faith in them; that you can trust them whether near or far away, and it will be to them a cheering thought that will doubly endear to them the sacred name of mother—checking them in temptation's hour, and leading their souls to lofty purposes and noble aspirations.

A mother's love and trusting belief—what a safeguard it has been to many a boy fighting his way in the world! It has helped him to conquer many an enemy, and brightened many an hour of struggle and sadness to know that a loving, praying mother has faith in her absent boy. A mother's trust has kept many a daughter's feet from straying, and bound their hearts together in affectionate sympathy and confidence until death alone has broken the tie, and then was left the sweet influence of a devoted life as a guiding star.

Mothers, have *faith* in your children!—*Sarah Keables Hunt.*

A Little One's Love.—The Poughkeepsie *Eagle* tells an affectionate story of a child between two and three years old whom a lady found walking on the street, evidently lost, and crying bitterly. Taking her by the hand, the lady asked where she was going. "I am going down to find my papa," was the reply, between the sobs of the child. "What is your papa's name?" asked the lady. "His name is papa," replied the innocent little thing. "But what is his other name?" queried the lady; "what does your mamma call him?" "She calls him papa," persisted the little one. The lady then took the child by the hand and led her along, saying: "You better come with me; I guess you came this way." "Yes, but I don't want to go back; I want to find my papa," replied the little girl, crying as if her heart would break. "What do you want of your papa?" asked the lady. "I want to kiss him." Just then a sister of the child came along looking for her, and led her away. From subsequent inquiries it appeared that the little one's papa, whom she was so earnestly in search of, had recently died. In her lonesomeness and love for her papa she, tired of waiting for him to come home, had gone to find him and greet him with her accustomed kiss.

Troubles.—Everybody knows the saying that "the sky is clearest after a thunder-storm." And certainly, if we look back to those epochs of life, rare and few, when we can say, be it only of a week or a day, "Aye, I *was* happy!" we should chiefly find that they came immediately after times of great trouble; when we watched the gray skirts of the spent cloud slowly retiring; while around us the birds began to sing and the grass to grow, and we wakened up to life and its enjoyments like creatures newly born.—*Muloch.*

Spiders' Silk.

Many attempts have been made to utilize the fine threads of the spider's web for manufacturing purposes, but their extreme tenuity and the large quantity of glutinous matter with which they are covered, combined with the difficulty of obtaining the material in regular quantities, have prevented the realization of the idea. There is no question that, if any way of overcoming these difficulties can be discovered, there is a vast amount of material available; witness the quantities of "gossamer" with which the air is loaded on a fine spring morning. When the early riser takes his constitutional walk in the country, and finds at every step an almost imperceptible thread strung across his path, and unpleasantly clinging to his face as he brushes through it, his sense of discomfort would be somewhat lessened if he knew that in these aerial insect railways was to be found an article of commercial value. Regular foraging expeditions in search of the material would be organized, and we should see the spider cultivated in much the same way as the silkworm now is. The apparently inexhaustable supply of "web" with which the spider is provided is another feature of the probable industry. That the idea is not so absolutely Utopian as might at first sight be imagined, is proved by the discovery of a large kind of spider in Australia which spins a nest for its eggs resembling in many respects the cocoon of the silkworm. Specimens of this "cocoon" have been laid before the Paris acclimatization society, with a view to practical experiment in the direction we have indicated. It is not in the fact of building a "nest" or "cocoon" that this Australian spider is peculiar, but in the thickness and extraordinary quantity of the thread of which it is composed. The smallest of our spiders makes a more or less elaborate cocoon in which it deposits its eggs; and it is probably from this material rather than from the tangled mass which the destruction of the actual spider's web would produce, that there is any prospect of obtaining a supply for commercial uses. Several large species of spider, spinning a nest very similar to that of the Australian variety, are found in this country, and more particularly in southern Europe; and it is just possible that the productive powers of the insect might be increased by scientific breeding such as is practiced among silkworms, and indeed among all animals whose productions are of any real value. At any rate, this is a field which has by no means exhausted the ingenuity and skill of man though it has attracted his attention for ages; and there is no reason why Australia should not return the compliment of the introduction of silkworm breeding into her own fields of industry by supplying us with a rival insect producing a similar material.—*London Gazette.*

Men That Women Like Best.—We know that men naturally shrink from the attempt to obtain companions who are their superiors; but they will find that really intelligent women who possess the most desirable qualities are uniformly modest, and hold their charms in modest estimation. What such women most admire is gallantry; not the gallantry of courts and fops, but boldness, courage, devotion and refined civility. A man's bearing wins ten superior women where his boots and brains win one. If a man stand before a woman with respect for himself and fearlessness of her, his suit is half won. The rest may safely be left to the parties most interested. Therefore never be afraid of a woman. Women are the most harmless and agreeable creatures in the world to a man who shows that he has got a man's soul in him. If you have not got the spirit to come up to the test like this you have not got that in you which most pleases a high-souled woman, and you will be obliged to content yourself with the simple girl who, in a quiet way, is endeavoring to attract and fasten you. But don't be in a hurry about the matter. It isn't creditable to you. Especially don't imagine that any disappointment in love which takes place before you are 21 years old will be of any material consequence to you. The truth is that before a man is 25 he does not know what he wants himself. So don't be in a hurry. The more of a man you may become, and the more manliness you become capable of exhibiting in your association with women, the better wife you will be able to obtain; and one year's possession of the heart and hand of a really noble specimen of her sex is worth 999 years' possession of a sweet creature with two ideas in her head and nothing new to say about either of them. So don't be in a hurry, we say again. You don't want a wife now and you have no idea of the kind of a wife you will want by and by. Go into female society if you can find that which will improve you, but not otherwise.—*Exchange.*

Every boy with any refinement rejoices in the adornment of his home. If his mother gets a new piece of furniture or a picture for her parlor, he is made happier by it. Why, then, should he not seek to adorn the out-of-door world by planting trees where nature has not done it for him? This should be a great tree-planting year, not only with the father who can never sit under the shadows of those trees, but also with the boy who may do so in his maturity and old age.

"Tis false!" as the girl said when her fond lover told her she had beautiful hair.

A New style of Washington veilis flesh color, with a tinge of rose running through it.

"Business."

What is it? Webster'a Unabridged defines it aa "Employment; that which occupies the time, attention and labor of men, for the purpose of profit or improvement; *a word of extensive use* and indefinite signification. Business is a particular occupation, aa agriculture, trade, mechanic art, or profesaion."

This definition does not agree with the current notions in regard to what constitutea a husiness or a "businesa man." We often hear it said that such a one is a "busineas man," or that he "understands business." To write well and nnderstand book-keeping is often confounded as identical and the same as business ability. Busineas ability and the knowledge of hook-keeping are often found combined in one and the same person, but they are not inseperable, for we have often seen much excellent husiness transacted without the use of bslance aheets. The term "bnsiness man," in the aense in which it is often used, is a misnomer.

As an illnatration, we met a young stripling of a fellow, with kid gloves on, the other day, who inquired if we had anything to do in his line.

We ventured to enquire what was his line, when he informed us that he was competent to superintend or conduct any "legitimate huainess," that he had jnst graduated at Heald's bnsiness college, in San Francisco; "so you see that I am prepared for hiz. If you have anything to do, I am juat the msn for you."

We informed him that we had some hay to rake, wood to saw and books to post, and that a man was wanted who conld well and willingly do it all. He declared that he had never raked any hay nor sawed any wood, that he "would sooner starve or steal than make a nigger of himself."

While in conversation with a "business man" of San Francisco, not long since, he remarked that "Farmer Rhoda was not a business man, that he did not underatand business principles." Now, the facts in the case are that Farmer Rhoda has got a head on him nearly half as long as a hoe-handle, and with that old long head and hard hands of his he has accumulated a cool hundred thonsand dollars in attending to his own husiness, while the "businesa man" of San Francisco has never successfully conducted any business for himself, but has managed to live hy writing letters and posting booka for other people. Query: Which is the "business man;" the old farmer who has, by management and industry, msde his hundred thouaand, or the man who has never succeeded in anything hut in keeping the books of somebody else'a business?

If a man engages in any commercial relation, and is competent to write a legible hand, post books, halance accounts, wears a "boiled shirt" and kid gloves, he is dubbed a "business man."

If a man can run a farm of a thoussnd acres succesafully, manage and direct from 10 to 50 men and an acre of teams and machinery, after all he is only "old Farmer Rhoda," or some other old farmer, "who doesn't understand business."

If a man successfully runs a machine shop with all its paraphernalia, backed by the genius which has welded the brighteat lnka in the chain of national glory, "What of that?" says Kid Gloves; "Hia garments are coarse, his hands are hard, and his face is seared by cindera of the furnace! After all, he is only a greasy mechanic—not recognized in upper-ten society! Anyhody can he a mechanic! Anybody can be a fa1mer! Training, education are not neceasary adjuncts! Braina even are nonessentials! It is all automaton-like—anybody can do it!"

Such ideas may be in accordance with the views of fashionahly educated people; but the constitution of my mind is such that I see as many businesa men in homespun as in broadcloth; and wherever merit exists we should be willing to recognize it.

Book-keeping occupies abont the same relation to the husineaa of a merchant as plowing does to that of a farmer—necessary adjuncts to the success of either calling.

The man who sella peanuts is frequently a hetter business man thsn he who aells drugs or dry goods. The measure of aucceas in huainesa is the true measure of buaineaa capacity. A man may write splendidly, keep his books neatly and draw a perfect halance sheet, hut if he hasn't a well halanced head on him hia businesa will aoon go to the doga.

It is estimated that at least 80 per cent. of our "husiness men" in the commercial centera fsil in busineas, while at least 80 per cent. of the farmers and mechanics succeed in businesa. Then if success in buainess ia to be taken as the measure of capacity, it follows that the farmers and mechanics of the country stand first upon the list of business men.

The tendency of the age and our faahionable schools and colleges ia to "cram" the youth of the land with a theoretical conception of "commercial relations," or to impart a smattering of science or the "learned professions." Consequently every avenue of trade and profeasion is choked with solicitors trying to live on somebody's elae labor.

A business education ia very much to be desired, and I wonld not in the least discourage it, hut only give it a more practical tnrn in the direction of ntility, by encouraging the practical development of buaineas talent in every department of life. J. V. Webster.

Young Folks' Column.

A Floral Letter to a Friend.

"Love in a Mist"—You Puzzle Me. Embracing the Hidden Meaning of Seventy-five Flowers.

[In the following letter to a friend, sent to the Rural Press by "Cornus Canopus," the names of 75 flowers are to be substituted by words which, in the language of flowers, their sentiments are construed to express. Here our young folks have an opportunity for a leisure hour's pleasant amusement, and a chance to acquaint themselves with the sentiments expressed by some of the principal flowers, by unraveling their significations. The names of those who send us a list, with their list attached, will be published next week.]

My dear "Cinquefoil," "Lalla:"—Never before in my "primrose," indeed not within "syringa" of all my "lucerne" can I "geranium, silver leaf" moments of such "wood-sorrel" happ.ness and "houstonia" as these prespretracted "wormwood" and our long "trumpent ones are. An "iria" from you, after your pet flower," during which intervenes a considerable lspse of "pine," was a "truffle" that quite overcame me. It waa with "crocus" that I perused your letter, and especially those parts relating to your "tulip tree," surrounded by the "lanrel" and "ash" of Nature's wonderful works, and that you are in possession of good health and all else that "white hollyhock" could desire. But I cannot forbear atating to you, notwithstanding the length of time that has elapsed since last we met, that I was very much pained to hear of the little "black thorn" you had with Fannie. Your long, and as I supposed, "arbor vitæ" had led me to believe and "hawthorn" that such an "bee ophyxs" would never be committed by you, but that between you and Fannie "box" would be ever on the ascendant. However, never fret, for your little "columbine" is too insignificant to be made the subject of our party "cobœa" and therefore, "coltsfoot" and in all "honesty (lunaria)," I extend to you my earnest "sweetbrier rose." Be assured, however, that the occurrence caused me much "yew;" still I anticipate that your "mountain ash," "holly" and "mullein" and her "osier," with a little "walnut" on the part of hoth, will result in a speedy "filbert;" at least such a result I am "hepatica," and it is my "snapdragon," if you "plum tree," I will have the "snowdrop" of witnessing.

The close tie of "rose acacia," amounting, we might say, to "red catchfly (silene)," existing hetween us, not in the least shaken, I anticipate, even though we are at this time "zennæ," accords me the "live osk" of hoping for a continuation of your "heech," and to extend to you a cordial "trailing arhutus." Do visit ua during your leisure, as I am "red columbine" and "corchorus." When can "nutmeg geranium?"

That of which you spoke reached me to-day per Wells, Fargo & Co.'a express. You cannot imagine how keenly "flax" and how much "garden daisy" over its "broom" I feel into a "cape jasmine gardenia" of delight. With your "goosefoot," "currants" and "wild daisy" as "daphne mezereon" in return, I wonder how I can express my "Canterhury bell" and "agrimony."

It is a "camellia" that you are not here, for I am so "garden anemone," and "white chrysanthemum" in "rose chrysanthemum," you so "arum" that "purple heart's ease" constantly, and my "osmunda" are never away from you, while "spindle tree," in return for all which I "almond" that you "heart's ease" occasionally.

In "anemone" of your speedy return, without any unnecessary "euphatorium," I hope "coronilla" "Michaelmas daisy!" With "myrtle" I am respectfully "dahlia" "dwarf sunflower," "Coriander."

Answering Letters.

[Written for Young Folks' Column, by A. Brunne, Jr.]

Nothing should be more forcibly impressed upon children than the importance and propriety of replying to all lettera requiring an anawer, no matter who or how hnmble their writer, or how trifling the contents of the letter. Throughout Europe, but nowhere, we believe, ao particularly as in England, Scotland and Wales, it ia considered a great breach of etiquette to allow a letter needing one to remain unreplied to, and such an exhibit of ill-breeding in those countries cauaes the individual to be at once looked upon with contempt, even hy persons socially really below him. In America, while parents are generally as orthodox in the training of their children as European people are, this one great rule seems to be almoat entirely untaught, or, if taught at all, not preaaed upon the mind of children wi h sufficient streaa. The writer's occupation is one wherein he haa ample opportunity to notice this. Out of 43 lettera which, though a reply was not abaolutely required, were sent accompanied hy an article, the receipt of which, under the circumatancea, it was only just and proper to acknowledge, but 16 were re ked to. This determines the prevalence of this very exceptional idea of etiquette, exceptional because common aense teaches that no one will write a letter, the safe delivery of which, and correct underatanding of the contents wi ereof, the writer is not alwaya happy to be informed of. Of course there are exceptions to this not invariahle rule. Persons of eminence, such as statesmen, distinguished literarista, and other persons whose position ia at once a prominent one, bringing their name frequently before the people, are sometimes bered by nnscrupnlous correspondents who sometimes have no other or higher object in view than the possession perhaps of their autograph, in which case the peraon addressed can, conscientiously, for self protection pass over the letter unnoticed. But even such diatinguished persons sometimes feel delicate ahout leaving a not too impertinent letter unanswered. Thus the late Duke of Wellington, who replied to every letter, no matter from whom received, was once appealed to by a clergyman living in a distant parish for a donation toward the erection of a village church. The Duke wrote back in a few days that he could not see why in the world he ahould be asked for money for anch an object. The shrewd parson, however, disposed of the note as an autograph for £5, putting that amount on the subscription list opposite the Duke's name. In a similar manner a little girl once wrote to President Grant for a small amount for some charitable object. President Grant replied, aending more than the desired sum, which, with the price the little girl received for the letter as an autograph, netted ahout $15.

Good Health.

Moisture of Walls in New Buildings.

Regulations in regard to the fitness for occupancy of dwellings, especially new ones, demand a certain degree of dryness, and the questions as to what the amonnt of moisture in a wall at any particular time may be, and as to what state of dryness is required through considerations of health, have been much discussed. In a particular place, a certain period for drying new buildings, dependent upon climate, material of constrnction and style of architecture may become to be fixed by experience, as necessary, but the direct testing of the walls as to the amount of moisture in them has not been trustworthy. In view of these facts a number of experiments were made hy Dr. Glasgen, under the direction of Professor Pettenkofer, for the accurate determination of the amount of moisture present in walls at any time, and a method was finally fonnd that gave satisfactory results. Portions of the plastering taken from different parts of partition walls were tested. The free water and water of hydration of the lime were determined aeparately, the former by drying sifted specimens in a Liebig drying tube, in a current of air freed from carbonic acid, and the latter by passing a current of carhonic acid over the apecimen thus dried while heating it. The general conclusiona from the tests made of a great number of buildings, under varying conditions, were that there is a constant loss of moisture proportional to the time, and that there is a great difference between the times of drying in winter and summer, and of exposed and unexposed buildings. Further tests, however, involving numerous details, are considered necessary in order to answer the question as to when a new building may be declared dry; but it is hoped that the publication of the ahove method and the detailed results may lead to a fuller investigation.—*Canadian Magzine.*

Cure for Poison Ivy.—A correspondent of the *Chronicle* writes: I wish to inform your readers of a dead sure cure for ivy poison, that is, those of your readers who attend picnics on week days, not the Sabbath-breakers, for them there cannot be too much ivy; I have carried it with me everywhere where I have ascertained there was the leaat danger. What is more common than lime? Take a piece as large as a walnut, unslaked; dissolve it in a ssucer in a small quantity of water; wash the hands in it; apply to the parts affected; in fact, wash the face and neck, etc. some of 'em know what etc. means before this—and I tell you there will be no inconvenience from that dose of ivy. I am very sensitive to the poiaon, so much so that it the wind should blow the dust from the ivy upon my person I am gone; but the lime always straightens me out. I hope you will find it convenient to give this a place in your colnmna—ao simple a remedy and one that will afford immediate relief to those affected.

The Virtue of Plenty of Sleep.—A medical friend saya: "One man may do with less sleep than another; hut, as a general rule, if you want a clerk, a lieutenant, a lawyer, a physician, a legislator, a judge, a president or a pastor, do not trust your interests to any man who does not take on the average eight good solid hours' sleep out of the twenty-four. Whatever may be the reason for it, if he does not give himself that, he will snap aome time just when you want him to he strong." Good, sweet, sound sleep, "Airy-light, from pure digestion bred," is nature'a true eye-opener, and for physical vigor is the only aure tonic and preparation. Those who pay conrt to Somnns are aeldom found in the halls of Bacchus. Glowing cheeks and ambrosial locks are the gifts of Hebe to those who love an early pillow. Tomorrow's labors demand the vigorous life which comes from solid forgetfulness and the dreamiest inactivity. Good sleep cures sleepiness and sleepy headaches. Take your fill of the pure article.

Domestic Economy.

Home Manufacture of Table Syrups.

A correspondent of the *Sunny South* offers the following suggestion in regard to making syrup for the table from sugar, which, we think, is worthy of consideration by all who value strict cleanliness in the preparation of food.

There are several reasons suggested by economy and convenience for making the manufacture of syrup from sugar a household practice. The dealer who retails syrup has to pay freight on the weight of its contained water. This he exacts from the consumer in the price at which it is offered. The package in which the syrup is transported is much more costly than that in which the sugar is conveyed. The difference is added to the manufacturer's price, and is another element of cost to the consumer. The retailer of sugar adjusts his price at the lowest practicable rate of profit, becauae modern luxnry has made it an article of prime necessity and which will not bear a profit. Not so, however, with syrup, on which a rate of profit equal to the average of that made on the table supplies is required by the dealer.

To make a gallon of syrup of beautiful whiteness and crystal-like transparency, such as is known in our markets as silver drips, or rock-candy drips, there are required eight pounds of refined sugar, auch as is known by its various names and grades of A or B or Extra C, and costing from 10 to 12½ cents per ponnd, according to locality and distance from the sugar refinery. To this quantity should he added three pints of boiling water, and the whole subjected to slow boiling for a period of 15 to 20 minutes; after which the solution, while warm, should be strained through a fabric of moderately close texture. This will produce a gallon of syrup, at much less cost than the price demanded in market for the grades of syrup named. For a light yellow or golden syrup the same qnantity of light brown sugar may he employed, and so on through the lower grades of sugar and syrup; but no grade of sugar can be found which will produce so worthless an article as the Cuba molasses generally offered in all markets.

How to Select Meats.—An English journal gives the following hints on this subject: "Good and wholesome meat should be neither of a pale rosy or pink color, nor of a deep purple. The first denotes the diseased condition, the last proves the animal has died a natural death. Good meat has more of a marble look, in consequence of the branching of the veins which surround the adipose cells. The fat, especially of the inner organs, is always firm and suety, and never moist, while in general the fat from diseased cattle is flabby and watery, and more often resembles jelly or boiled parchment. Wholesome meat will always show itself firm and elastic to the touch, and exhibit no dampness, while bad meat will appear soft and moist, in fact, often more wet, so that the liquid substance runs out of the blood when pressed hard. Good meat has very little smell, while unsound meat has a disagreeable, cadaverous smell, and diffuses a certain medicinal odor. This can be distinctly proved hy cutting the meat through with a knife and smelling the blade, or pouring warm water over it. Lastly, bad meat has the peculiarity that it shrinks considerably in the boiling, wholesome meat rather swells, and does not lose an onnce in weight."

Raspberry Jam.—One ponnd of sugar to each pound of berries, and nearly a pint of currant juice. Put the sugar and berries together in a pan over the fire, and with potato-masher, or wooden spoon, keep mashing and stirring constantly to prevent burning. When they are well mashed, add the currant-juice, and boil briskly, still stirring it carefully. Just before it actually boils skim it well. Let it boil about three-quarters of an hour to bring it to the right consistency. It is best to put it in cups, bowls, or fruit-jars, as it does not keep so well after being disturbed. Cover the cups with firm paper varnished with white of egg, and pressed closely around over the edges of the cups. Jam should be kept in a cool, dry place.

Milk Kept by Chloroform.—That milk can be kept sweet by the addition of a little chloroform, is a suggestion for which we have to thank J. P. Barnes, of London. When added in sufficient quantity to fresh milk, the lactic fermentation is prevented. To two-eighth fluid ounces of fresh milk were added, respectively, 10 and 20 minims of chloroform; they were kept in a warm place and constantly agitated. After five days had elapsed, that containing 10 minims had developed lactic acid in quantity sufficient to separate the casein, while that containing 20 remained fresh and good. It might be found convenient to preserve milk in this manner; always taking care to boil it just before using, in order to drive off the chloform.—*Atlanta Med. and Surg. Jour.*

Sago with Fruit.—Take four ounces of sago; half a pint of raspberry and currant juice (strained), and six ounces of loaf sugar. Wash the sago and steep it for one hour in cold water; strain off the water; add the juice and boil gently a short time, stirring it occasionally, and adding the sugar; when clear, pour into a mold; let it stand 12 hours, and pour it on a flat dish.

PACIFIC RURAL PRESS

PUBLISHED BY

DEWEY & CO.

A. T DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engrsving and Printing establishment.

SUBSCRIPTIONS psysble in advance—For one yesr, $4; six months, $2.25; three months, $1.25. Remittsnces by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 *week*. 1 *month*. 3 *months*. 1 *year*

Per line.....	.25	.80	$2.00	$5.00
One-half inch.....	$1.00	$3.00	$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Rates of Subecription.

Secretaries of Granges and Farmers' Clubs, (and all reliable farmers snd subscribers of the PRESS) are hereby authorized to make up clubs, of five or more names, at $3 each, per annum, in advance.

☞ No Agents or Secretaries are authorized to receive subscriptions at less rates than $4 per annum except in clubs of five or more, strictly cash in advance, yearly subscribers. Any arrearsges thst msy sccrue on club subscriptions will be charged at full rates.

No SUBSCRIPTIONS will be received at less than four dollars a year, except in clubs of five or more, or through club or Grange agents who hsve sent five or more subscriptions during the year.

Our latest forms go to press Wednesday evening.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO

Saturday, June 24, 1876.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Steele Brothers' Dairies; Burre D'Aremberg, 401. The Week; Work and Water; Potatoes at Half Moon Bay; Weeds; Our Index, Etc.; A Plsgue of Rsts, 408. The Matanzas; Our Premium List; A New Motor; Patents and Inventions; Our Centennial Campaign, 409.

ILLUSTRATIONS.—The Buerre D'Aremberg, 401. The Rider Compression Engine, 409.

CORRESPONDENCE.—The Centennial at Philadelphia; Beyond the Sierrss, 402.

THE GARDEN.—Make Gardens, 402-3.

THE VINEYARD.—Cosl of Raisin Drying Floors; Grspe Culture snd Grafting, 403.

BEES.—To Prevent Swarming, 403.

ARBORICULTURE.—Planting a Forest, 403.

HORTICULTURE.—What is the Difference in Fruit Driers, 403.

POULTRY YARD.—Poultry Notes, 403.

PATRONS OF HUSBANDRY.—From the Granges; The Grange Reviving; Farmers' Prodnce Exchange; Grsn e List; In Memorism, 404.

AGRICULTURAL NOTES from various counties in Cstifornia, 404.

HOME CIRCLE.—The Pioneers (Poetry); Truthfulness to Children; Advertising Shame; A Centennial Incident; The Pope's Humor; Accnracy; Have Faith in Your Children; A Little One's Love; Troubles; Spiders' Silk; Men that Women Like Best; "Business," 406-7.

YOUNG FOLKS' COLUMN.—A Floral Letter to a Friend; Answering Letters, 407.

GOOD HEALTH.—Moisture of Walls in New Buildings; Cure for Poison Ivy; The Virtue of Plenty of Sleep, 407.

DOMESTIC ECONOMY.—Home Mannfacture of Table Syrups; How to Select Meats; Raspberry Jam; Milk Kept by Chloroform; Sago with Fruit, 407.

QUERIES AND REPLIES.—Apricots, 408.

MISCELLANEOUS ARTICLES.—Liability of Msnufacturers of Illuminating Oils, 403.

NEW ADVERTISEMENTS.

Fruit Jars, C. Newmsn & Co., S. F.; "Elsine" Oil; Valuable Farming Lands to Lease, Robert J. Mercer & Co., S. F.; The Lamb Knitting Machine Co., S. F.; Grangers' Business Association, Daniel Inman, Msnager, S. F.

The Week.

The event of last week was the burnir g sunshine and the weight of heated air. It came upon the harvest fields when the hands were busiest and took the nerve from men and animals. In several localities in the central region of the State there was for the time a cessation of harvesting operations, but not until a number of men fell beneath the sunstroke, some of them not to rise again. Contra Costa county reports six sunstrokes, Colnsa connty at least ten fatal cases and as many others of lesser weight. The intense heat of the snn falling upon a humid air was most prostrating. An experience of this kind is wholly new in this part of the State to the extent which it prevailed. Following the heat hss come an early downpouring of water from the mountains and the streams are overflowing.

These hardships have come upon the husbandmen in their busiest season, bnt still the harvest pushes on, and in an atmosphere which has become more temperate great deeds are being done in all the grain connties of the State.

ON FILE.—"Notes of Travel and Sight Seeing," C. A. C.; "Woodside Papers" and "Letters to Boys and Girls," J. E. J.; "Botanical Excursions," J. G. L.; "Ag'l Education in Germany," J. W. A. W.; "Undergronnd Irrigation" and "Mulching the Fruit," G. R.; "Notes from Ventnra," J. W. W.; "Notes from Mendocino," J. V. N. B.; "Notes from Sacrsmento," C.; "Discursive Discnssions," E. B.

Work and Water.

Work an l water are the 'open sesame" to the treasures of sgricultural success in this State. It is wonderful what charms they can achieve. Theirs it is to transform a dry waste into a garden. We are always impressed with this fact when we look npon the market gardens of San Migrel, in the southern environs of the city. Here are little patches of bright green vegetation while all around the sand is dry and light, rising upon the winds of the sfternoon and flying to the uttermost parts of the earth. Wonders of industry are these gardens of the Italians. They generally nestle npon gentle slopes and esch one is a picture. In the center rises the home-made windmill with its white canvas wings moving slowly. From the windmill there stretches to the highest point of the garden the slender flume, no thicker than the trough which catches the droppings from Eastern eaves and snpported by a frame work as light as a trellis for a honey-suckle—the whole structure of flume and supports so light that, to the beholder from afar, it looks as airy and evanescent as a spider's web spun acr ss a landscape. Below the point where the flnme discharges its life-giving water the hillside is a ch cker-bosrd of garden beds, each row resting upon a tiny terrace of its own, until the hillside becomes a flight of stairs down which the water trickles from step to step in little irrigation ditches hardly deeper thsn the trenches which the wheels of a stage coach press down, and which shine like fawn-colored ribbons lying in the fog-damped dust of the mountain roadways. These little ditches form a perfect network of the hillside, thresding their ways not only from terrace to terrace but traversing the beds wherever stands a row of plants, csrrying the grateful water to the root of each individual plant. These gardens are a marvel of perfect distribntion of water. Each volume of supply bestowed above pursues its way nntil the whole field below is visited and refreshed.

Of course this intricate and extended system of ditches shows the bestowal of :hat other fsctor of success, viz., work. It needs work to keep the beds so clean and shape the earth into a water way when the weeds are removed It needs work to do the terracing. It needs work to manipnlate the soil nntil it is mellow and warm. Economy and careful application of all availsble fertilizing materia. enters as an adjunct, and crowns the industry of the cultivator with a wealth of productiveness. The soil is black and rich, warm and mellow, and the heavy hoe of the cultivator sinks six inches at a stroke.

The result of the nntiring industry of these Italian gardeners is a wonderful growth of early vegetables. All the labor and care which they bestow upon an acre is well repaid in the quantity and value of the vegetables which they secnre. Their agriculture is thorough and persistent, and they find such agricnlture profitable.

Potatoes at Half Moon Bay.

Half Moon bay, as may be generally known, is an indentation which the Pacific has cut into the shore of San Mateo county. The country adjacent has taken a name from the bay, and is best known in the markets for its production of potatoes. There is a canon which extends fonr or five miles back into the mountains from the bay, and in this canon the chief prodnct is the potato. Along the sea coast also aro wide acres of potato plantation. We observod, on a visit to the locality last week, that there is a large inoresse in the potato acreage this year. An enthusiastic resident informed us that there were at least 10,000 acres more in potatoes this year than last. It seems to us the estimate mnst be overdrawn, but it is certain that a large growth has been gained. There have come into the canon during the year great numbers of Portngnese farmers, and they hsve carried the potato planting into fields which were never broken before. The sides of the mountains are covered with the thick, blossoming plants. Hillsides which one would think almost too steep for cultivation are green with long rows of tnbers. Planting has been extended into ravines almost inaccessible. All along the main canon there are tributary canons. Into these the potato fields pierce and possess. Potatoes carpet the bottom lands and po atoes crest the hill-tops. The land, with very rare exceptions of jutting rocks, seems rich and deep even to the snmmits of the mountains. The beating of the breakers can be heard five miles away at the top of the canon, and the wind drives the moistening mists far np the canon and they are condensed upon the growing plants. Thus the whole scene is bright with verdure and thrifty growth. There seems to be practiced a great economy of land in this favored region. Little patches of ground capping the cliffs which hold back the ocean are seized upon and cultivated. There can be no doubt that with a favorable conclnsion to a growth which is now very promising, Half Moon bay will place upon the market a much larger crop of potatoes this year than ever before.

THE Republican convention at Cincinnsti, last week, nominated R. B. Hayes, of Ohio, for President, and William A. Wheeler, of New York, for Vice-President.

Weeds.

There is reason to believe that the growth of foul weeds is increasing in this State. We hear from time to time of the incoming of some new foe of clean culture. As there seems to be an increase of noxious insects in the orchsrd and the vineyard, so is there an incresse of weeds in the fields. Both these facts demand attention, study and action. Eternal vigilance is the prics of freedom from evils in agriculture, and prompt protective measures are a necessity.

The pastures in some of our coast counties have become tinged with sorrel, and many a green stretch of rich feed is being choked by this worthless weed. Left to itself its course is rapid. The best remedy we know is cultivation. A good measure of success has been attained in Marin county by giving the land a thorough working and seeding with Australian rye grass. Doubtless alfalfa could be nsed to excellent advantage for accomplishing this result.

Ano her weed which is becoming altogether too plentiful is mayweed. It springs up unexpectedly and may be carried from place to place in peculiar ways. A friend told the other day of taking home a crate of crockery and discovering after a while that the spot of ground where he unpacked the crate was covered with a thick growth of mayweed; the seed, doubtless, having been communicated from the cheap hay used in packing. He told also of a party camping on his land and afterwards there sprang up a heavy growth of thistles, of a variety not known in those parts before. These facts, and others like them which will occur to almost every resder, are illustrative of the many ways in which weed seed may be disseminated. They show the insidious character of the foe with which the husbandman has to deal, and how he must guard if he does not wish to give them entrance.

This subject of weeds, how they msy be introduced and how destroyed, is one of great importance and worthy of full discussion. We ask our readers to inform us of all new pests which may appear in their fields, what measures they are adopting to overcome them, and what measure of success they attain. We allude to the matter only incidentally at this time, expecting to consider it more thoroughly hereafter.

Our Index, Etc.

In order to make room for our index of the volume which closes with this number, we are obliged to allow our advertising patrons to encroach a little upon the space usually devoted to reading matter. We shall atone for the reduction in this issue by making our next issue contain eight pages extra, with extra and attractive illustrations, which will make a PRESS of 24 pages for a starter on the new volume.

We are going to make an effort to greatly increase our circulation. This will result in advantage to every subscriber, because with an enlarged body of readers we shall have more writers, more wants to be supplied, a larger fnnd of experience to draw npon and more of the "sinews of war" to enable us to carry out our plans for improving our paper and supplying the increasing calls for information and entertainment which are made upon us. A genuine newspaper, if it be enterprising, is a great co-operative concern in which readers join interest and effort. We shall try to increase our snbscribers both by deserving them and by making our deserts better known. We are going to push our enterprise and seek subscribers far and wide, and as we travorse new fields of agricultural, mining and industrial enterprise for new patrons, we shall strike for co-operators in the brain work of our undertaking, and make our paper reflect the progress, success and resources of all parts of our wide parish of readers. We shall plow and delve for richer experiences, and for plants of choicer and higher growth and culture. Every part of the labor toward these desirable ends we shall prosecute with energy and enthnsiasm, making the success of the present the stepping-stone to far greater successes in the future.

Just now, as the nation's great occasion, the Centennial, is occupying all minds, we shall pnrsne our descriptions of it with new zeal and talent, and yield to no publication on the coast in the compactness and comprehensiveness of our reports.

THE DODGE HAY PRESS.—We were present at an exhibition of the Dodge Excelsior hay press st the foot of Washington street, S. F., on Wednesday afternoon. Our readers will remember that this press was illustrated in our issue of May 27th. The press was in charge of P. Mohan, of 106 Davis street. The trial given on Wednesday was evidently satisfactory, although the press was operated to a disadvantage by men who had never seen it before, and npon hay which had been baled. The press is immensely powerful and does its work without a shiver, and yet it is portable, being mounted upon wheels, as shown in our engraving. The exhibition on Wednesday was witnessed by a large crowd of interested observers, and the comments made indicated the success of the trial.

QUERIES AND REPLIES.

Apricots.

EDITORS PRESS:—We send you a small box of apricots. We wish you to name them, as we have a small bet on that question, snd both parties agree to leave it to you to decide who shall be the winner. There are no apricots like them except what we have in this place. You may have better and earlier in your city, but we can't find them in Stanislaus or Tuolumne counties.—PENTLAND BROS., Knight's Ferry, Cal,

The apricots were received in good order and they were an exceeding handsome fruit. The point of dispute, viz: the proper name, we find much more difficult to settle than the fruit, for that was very easily disposed of. We found it impossible to satisfy ourselves on the name, nor could our best fruit dealers aid us, for each of three of them was very certain he was right, which could not be, for each named a variety which we know to be distinct. To serve our querists as well as in our power, we boxed up half a-dozen of the finest of the fruit and sent them to B. S. Fox, of San Jose, recognized as one of the best fruit authorities in the State, and we received the following reply: "The box of apricots came to hand in good order. There are some five or six sorts of apricots it is hard to name owing to the difference in climate. For instance, the Royal, Peach and Hemskirk. They are of the Moorpark type, and there is only a slight difference in the time of ripening. When Moorpark and Turkey would be ripe and gone at Knight's Ferry, my Dubois Early Golden would not be colored. In the San Francisco market I see Dubois Early sold for Hemskirk. Hemskirk is so like Moorpark it is hard to tell the difference, only one ripens a few days before the other. The variety you send is what I grow under the name of 'Large Early apricot,' easily distinguished from any of the other early sorts, being large, oblong, a sort of angular, parts from the stone on opening, a good grower and crops well, and for an early apricot good. Still, I may be mistaken. I have not the two sorts ripe to compare them, but from memory should call it the Large Early apricot, with some half-dozen aliases."

A Plague of Rats.

While we were reading of the plague of mice which came to the residents on the farms of Teviotdale, in Scotland, there comes a report of a visitation of rats in California. We have a way in this State of surpassing whatever is done in other parts of the world. So when we hear of mice in Scotland we should expect nothing smaller than rats in California. The location of the scourge was in Kern county and the *Southern Californian* describes it as follows:

"We have heard rumors for the last two weeks of the depredations of an army of rats, and upon inquiry we find these reports to be true. The greatest damage done yet is on the Souther ranch, on the border of Kern lake. The first field of their operations was one of a hundred acres of wheat. This was the nearest to the lake, and gave promise of a yield of not less than 50 bushels to the acre. This was totally destroyed almost before the proprietor was aware that anything was the matter. They then advanced and began on another field of 400 acres, but Mr. Souther determined to dispute this with the rats, and immediately threw his mowers into this field and proceeded to cut the wheat for hay. He will probably by this means save half of his crop for hay. He estimates his loss at not less than 10,000 sacks of wheat. Several others in the vicinity of the lakes have suffered more or less from the same cause, only not so much, from the fact that they had less to lose. The rats are what are called tule rats, that live in the tule along the margin of the lakes, feeding on the roots of that plant. The spring rise in the river has filled the lakes and caused them to extend their margins a great distance, driving the rats back until they found the wheat fields, which was a new article of diet they appeared to relish better than the tule roots. Their plan of operation is to cut the stalk near the ground, and when it falls to eat the head. The grain is now in the milky state, and no doubt a very dainty diet for the rats. Their numbers are beyond computation, and can only be compared to the grasshoppers, and their operations are conducted with the completeness and almost the rapidity of a mowing machine. Great quantities of poison have been put out, but the effect is not appreciable."

The Scotch mice, although inferior to our tule rats, do not seem to be at all lacking in voracity. The farmers' club of the district lately appointed a committee to investigate the matter. On some farms the mice have eaten 30 per cent. of the grass which should be ready for the ewes, and in consequence of the want of keep the ewes are in poor condition, and the lambs are perishing. The mice, which are in millions, do not in all respects resemble the house or the ordinary field mouse; they are from three to four inches long, with a short, stumpy tail, have bright piercing eyes, and large ears almost level with the fur; are brown-colored on the back and ash-colored on the belly; and the stomachs of the few that were captured contained vegetable matter only. The importation of weasels and birds of prey is suggested by the *Scotsman* as the best remedy for the plsgne—which has been coming on for the last five years—even though the game should to some extent suffer.

The Matanzas.

The discussion of possible relief to the sheep industry through establishments for slaughtering and rendering, continues in the wool counties. Various estimates are given of the possible costs and profits. One of the most interesting statements which we have seen in this connection is made in the San Luis Obispo *Tribune* by a sheep farmer who is familiar with the workings of the Australian matanzas. We select from his statement some points indicating the advantages of the establishments. He writes: "It is a known fact, that in 1845 the sheep business of Australia was so demoralized, that seven-tenths of the sheep farmers became bankrupt and the value of sheep fell below three bits a head. This deplorable state of affairs was brought about by the low prices for wool which had been ruling for several years, causing generally a total want of confidence in the business, and a disinclination on the part of every one to invest money in it. Matters continued thus until, as already stated, some seven-tenths of the sheep farmers had to withdraw from the business, and no improvement set in until they found out a remedy which had the effect of giving their stock a permanent market value, based on the price of tallow ruling in the European markets. This remedy was the 'matanza,' or boiling-down establishment. And now, owing to their long experience, they are able to boil down sheep at the low rate of 25 cents per head, the sheep farmers paying for the barrel, thus leaving a profit of $1.50 to $1.75 per head, according to the amount of tallow the sheep produces.

"The sheep farmers of California have only to start in with the experience that their Australian brethren have attained, and they will find the advantages to be more than one to be derived from the operation of the matanza. It will enable them, by proper management, to convert into cash their old, inferior stock, which is now only an encumbrance in their hands. To do this, they must make it a part of their business to select every year whatever number of such stock they may think proper and keep them from breeding. Such stock to be kept with their wethers through the winter and spring upon their choicest pasture until the latter part of July, when sheep generally begin to shrink, and they will find that they will put on an amount of tallow which will enable them to return in the matanza from 30 to 40 pounds per head. It is a well-known fact that dry ewes take on fat rapidly. His fat ewes and what fat wethers the farmer may wish to dispose of, if converted into cash through the matanza, will enable him any year to infuse confidence into the minds of those interested in the business, and will enable him to calculate upon a safe return for his investment. The fact of being able to convert this class of stock sheep into cash, which in your article you state is now a drug in the hands of the sheep farmer, is one point of great advantage to them; it will relieve their runs and leave more feed for those sheep that are left, and will establish a market value on the ewes which will not fall short of that which can be realized through the matanza. Wethers can be converted to the same use if more cannot be made by selling them to the butchers, and thus the sheep farmer will not be compelled to part with his wethers to the butcher at $1, when $2 can be obtained through the matanza."

This statement certainly has the appearance of business. The farmers of San Luis Obispo county will soon be in position to test the matter for themselves, for we are informed that the mantanza has been begun in that county. We shall await with interest the report of its workings.

Our New Premium List.

We again publish our premium list, and ask all our subscribers to examine it and call the attention of other readers to the offers we make. We do not offer a 25 cent pictnre and claim it to be worth $10, but we give with a valuable newspaper (devoid of "clap-trap advertisements" and doubtful reading matter), premiums of some merit and value without the great pretension usually indulged in by publishers when offering premiums. We hope to please all our readers with the premiums offered and disgust none by over-rating their value. And above all we intend every issue of the paper shall be such as to remind subscribers that they are getting the value of their subscriptions, whether they accept premiums or not.

All old or new subscribers, sending us $4.00 for advance subscription, will hereafter mention the number of the premium they desire, and it wilt be forwarded in due time.

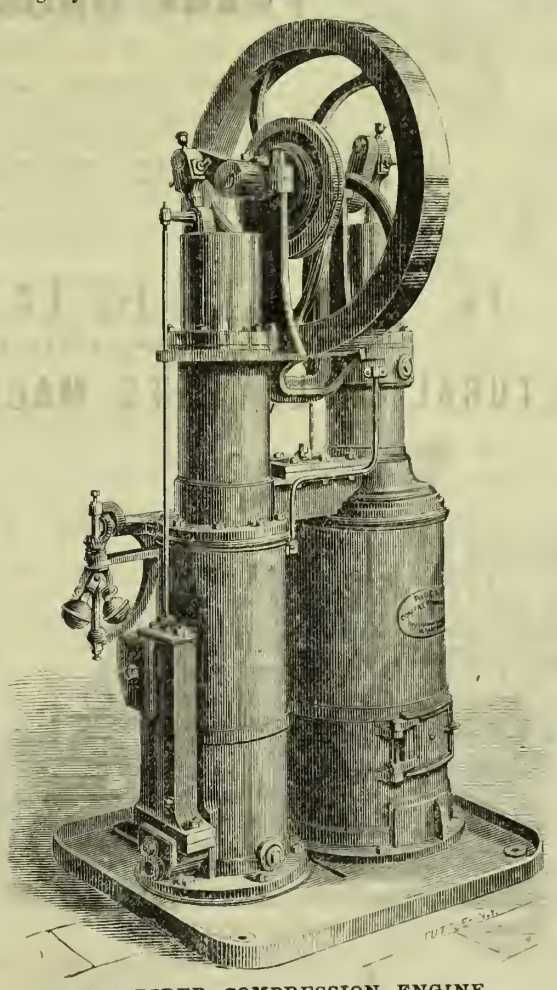
Personal.—We had a call last week from R. E. Whitney, of Laconnor, W. T., who is on his way to the Centennial. He is one of the firm of Whitney, Sisson & Co., who have been attaining good success in the reclamation and cultivation of tide marsh lands. His grain this year is looking very fine. Mr. Whitney promises to give our readers his experience with tide marsh enterprises and the methods which have given him best results. We trust he will have leisure to fulfill the promise, for the subject is of great interest and his experience is wide.

A New Motor.

We illustrate herewith a new motor—the Ryder compression engine—which has been introduced on this coast by Huntington, Hopkins & Co., Nos. 2 and 8 Bush street. As its name implies, the chief feature of this engine is the use of highly compressed cold air, the thorough heating thereof without change of volume, and its efficient expansion to a point to or below the pressnre of the atmosphere, thereby completely utilizing all the force or mechanical effect possible.

The engine consists essentially of a compression cylinder and a power cylinder with their respective pistons and connections, and a regenerator. The lower portion of the compression cylinder is kept cold by a current of water which circulates through the cooler which surrounds the lower portion of the cylinder, while the lower portion of the power cylinder is kept hot by the action of the fire below the heater. The heating and also the cooling of the air is instantaneously effected by its alternate presentation to the surfaces of the heater and cooler in a thin annular sheet.

The same air is used continuously, as there is neither influx nor escape, the air being merely shifted from one cylinder to another. Between the compression and power cylinders is situated the regenerator, composed of a number of thin plates slightly thickened at their edges, which, while affording a free passage to the air, subdivides it into thin sheets. It is so placed between the cylinders as to be traversed by the air in its passage each way between the hot and cold cylinders,



THE RIDER COMPRESSION ENGINE.

These motors are valveless, noiseless, simple, and claimed to be absolutely safe; emit no heated air or unpleasant odor, as is the case with caloric engines; require no steam, cannot explode, do not increase risk of fire or cost of insurance, and can be operated by any one who can manage an ordinary stove.

They are well adapted to running all kinds of light machinery, printing establishments, etc., but are particularly valuable for pumping. One of these little six inch pumping engines (household size) has, we are informed, pumped for six months, without intermission or stoppage from derangement, each consecutive day of 10 hours, 10,000 gallons of water to a hight of from 70 to 100 feet; and the engine required the services of an attendant less than 30 minutes each day, and consumed only 20 pounds of coal per day, thus pumping 2,000 gallons of water 100 feet high at a cost of only one cent. The engine is extremely simple. It has not a valve, spring, cam, lever, eccentric, or any loose or delicate part about it to get out of order. As to economy, we are told that it takes only from 20 to 30 pounds of coal to run a one-horse power engine for 10 hours. As there is no steam or danger of explosion no engineer is required, as it only needs some one to fire it occasionally and keep the bearings oiled.

These engines are well adapted to nurseries, breweries, tanneries, supplying fountains, irrigating, pumping water for cattle, etc. On farms they would be of great value as they require no care and if neglected will simply stop work and not blow up, as the best steam boiler is apt to do if not taken care of.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

From Official Reports for the Mining and Scientific Press, DEWEY & CO., Publishers and U. S. and Foreign Patent Agents.]

For Week Ending June 6th, 1876.

Dust Traps for Smelting Furnaces.—Thos. Jefferson Taylor, Eureka, Nev.
Drill Sockets.—Charles Allison, S. F., Cal.
Flour Bolts.—John H. De Force, Henry H. Hurd and George Simpson, Redwood, Cal.
Suspender Belts.—Edwin J. Fraser, S. F.
Pantaloons.—Redmond Gibbons, S. F., Cal.
Auger Handles.—George L. Gibson, Reno.
Ore Concentrator.—Geo. Ginn, Belmont, Nev.
Manufacture of Rawhide.—August C. Krueger, S. F., Cal.
Packing Threshing Machines for Transportation.—Michel Laufenburg, S. F., Cal.
Manufacture of Artificial Stone.—Llewellyn L. Leathers & Felix Chappellet, Oakland, Cal.
Processes and Molds for Manufacturing Artificial Stone in Imitation of Mosaic. Llewellyn L. Leathers & Felix Chappellet, Oakland, Cal.
Printing Presses.—Albert E. Redstone, Oakland, Cal.
Sealing Cans.—Jnan A. Robinson, S. F., Cal.
Concrete Pavements.—John Morris Snook, S. F., Cal.
Harrows.—Ezra M Stevens, Santa Rosa.
Step Ladders.—Edward A. Stockton, S. F.
Windmills.—James Swimmerton and William O. Swimmerton, Oakland, Cal.
Plastering Laths.—Theophilus A. Scheller, Marysville, Cal.
Wells.—Samuel W. Bells, Orien, Cal.
Screw Cutting Dies.—John S. Campbell and Thomas J. Eyre, Salem, Ogn.
Water Elevators.—Robert H. Douglas, Fort Colville, Washington Terr.
Pockets for Wearing Apparel.—Redmoud Gibbons, S. F., Cal.
Sewing Machine Shuttles.—Joseph J. Graff S. F., ass'r, one-half interest to Orla H. Jewell and Andrew Showers, of same place.
Harrows.—John E. Perkinson, Santa Rosa.
Baling Presses.—Jacob Price, San Leandro.

Trademark.

Medical Compound.—Clarke & Co. S. F.
Explosive Compound.—Charles De Lacy, S. F.

For Week Ending June 13th, 1876.

Straw Feeders for Furnaces.—Frank H Fischer, S. F., Cal.
Ore Scourers and Amalgamators.—William H. Patton, Oakland, Cal.
Hose Pipe Couplings.—Thomas Loftus, Sacramento, Cal.
Refrigerating Cans.—John G. Gimmy, Monticello, Cal.
Horse Hay Forks.—Eli T. Stoughton, S. F.
Spraying Instruments.—Joseph L. Turner, Plainsburg, Cal.

Pomological Society.—We are indebted to Hon. Marshall P. Wilder, President of the American pomological society, for the proceedings of the eleventh annual session of the organization which was held in Chicago last September. We shall have occasion to refer to this report frequently in our writings on fruit topics.

OUR CENTENNIAL CAMPAIGN.

THE PACIFIC RURAL PRESS WITH PREMIUMS FOR $4.

Ten Thousand New Subscribers!

We ought to add 10,000 new names to our subscription list this year. There are twice that number of reading farmers on this coast who should yet receive the Pacific Rural Press, and who would read it to their pecuniary as well as intellectual profit. We are going to try and enlist a larger army of readers; not by getting out one or two good numbers of our paper and then running it "thin" the rest of the year, but by keeping up superior matter and improving the quality of every issue. That is to say, by furnishing

A Better Paper and Greater Inducements

Our late rates were established some two years ago, when there was this difference in what we furnished each subscriber then and now:

1. Each subscriber paid his own postage. Now it is prepaid out of our pockets.
2. The reading matter, like that of most other weeklies, was largely set leaded (with open lines). Now it is set mostly solid, furnishing the subscriber at least one-fourth more reading in a column. This costs more for editing, composition, proof reading, etc.
3. Formerly we issued the paper (like other 16-page weeklies printed on this coast) uncut. Now it is stitched and trimmed, ready for use on any page, and in a proper form for preserving it for future reference. This also costs us much extra labor and expense.

Now, making the most of our improved facilities, and 20 years of constant experience in editing and publishing industrial newspapers on this coast, we are determined first to publish an agricultural and home journal

Worth its Full Price;

Besides this we propose to furnish Valuable Premiums Additional to Every Subscriber, and therefore will give, from July 1st, 1876, until further notice, the following

New Terms for Subscriptions.

PREMIUM A.

With the Pacific Rural Press, (two volumes a year, comprising 416 pages each) postpaid, a new lithographic **Map of California and Nevada**, of handy size, 16x20 inches—showing the official township lines of the surveyed lands of California, and the three fine plate engravings entitled "Burial of the Bird," the "Flower Gatherer" and "Paul and Virginia," all postpaid, cash in advance, for..... $4.00.

PREMIUM NO. 2.

With the Pacific Rural Press one year, the above named **Map**, and a really **Choice Chromo** [description of which we will publish as early as the first of July,] all postpaid, for.....$4.00.

PREMIUM NO. 3.

With the Pacific Rural Press one year, the Map, and "The California Patron" (a monthly official journal, P. of H.,) and the choice of two of the fine plate engravings—"Love," "Truth" and "The Christian Graces,"—all postpaid for.$4.00.

PREMIUM NO. 4.

With the Pacific Rural Press one year, Dewey's Patent Newspaper File Holder (black walnut) and the Map of California and Nevada, all postpaid, for.....$4.00.

PREMIUM NO. 5.

With the Pacific Rural Press for two years, the Map of California and Nevada, to any single address in the U. S., all in advance....$6.00.

PREMIUM NO. 6.

With the Pacific Rural Press for six months, the Map of California and Nevada, postpaid.....$2.25.

PREMIUM NO. 7.

We will allow one dollar on the first order, amounting to five dollars or upwards, for other publications than our own (including books, papers and magazines not sold exclusively by agents) which may be forwarded to us with the coin by any yearly subscriber of the Pacific Rural Press.

PREMIUM NO. 8.

We will credit every present subscriber of the Pacific Rural Press with three months, additional subscription for the name of each new subscriber they send us with $4 during the next six months. The new subscriber to be fully entitled to premiums.

PREMIUM NO. 9.

With the Pacific Rural Press (to a *new* subscriber) 12 months, one map and 13 assorted back numbers of the Rural, postpaid (to any address), for.....4.00

These terms are payable strictly in advance.

Advance subscriptions, in actual clubs of five or more (without premiums), will be received at former rates until further notice.

Persons claiming premiums must order positively the number of the premium they desire. Otherwise, premium No. 1 will be sent.

Subscribers can have their premiums sent to any person they choose in the United States.

One dollar a year must be added for postage on papers sent to foreign countries.

All premiums will be delivered either immediately or within 30 days from our receipt of the order.

Present subscribers can avail themselves of either of the above premiums simply by advancing their subscription one year or more beyond the date of their application for a premium.

No premium will be allowed on any subscription not paid fully one year in advance.

For one dollar extra, received from any subscriber, we will forward to his order the premiums enumerated in either the above numbers.

These terms are liable to be changed, according to circumstances, at any time.

Lands and Homes for Sale.

A Desirable Bargain.

Mr. Lee H. Utt, of Pala, San Diego county, offers for sale a share in his valuable place, consisting of 320 acres, and situated as described above. There is an Apiary on the ranch in successful operation. For this business it possesses marked advantages. Twenty acres are seeded to alfalfa and eight acres are in vines. The place has growing on it 420 trees, many of them in bearing.

The owner will warrant the Cavendish Dwarf Banana to grow as well here as in Florida. He has three now growing. The pasture now enclosed will keep 50 head of cattle. The ditch—which is large enough to run a mill—is stocked with trout, and has a fish pond 100 feet square, and full of fish. There is a nice warm spring, with bath house; the water contains sulphur, salts and iron.

The place possesses great natural advantages, and the present owner has not spared money nor labor to improve; but being a valetudinarian he is not strong enough to attend to the work. To the right kind of a man a rare opportunity is here offered. To such a person as will come in good faith he extends the invitation to stop on the ranch long enough to become familiar with its characteristics and capacities.

Parties can refer to I. Nast, stock broker, San Francisco, or to anybody of note in San Diego. The place bears the name of "Aqua Tibia." Address,

LEE H. UTT,
Pala, San Diego County, Cal.

FOR SALE,

In Lots to Suit,

5,000 Acres of the Lake Vineyard Land and Water Association.

These lands are in the great fruit belt of Los Angeles County,—only six miles from the city—are peculiarly adapted to semi-tropical fruits, and adjoin the famous Lake Vineyard of Hon. B. D. Wilson. The Southern Pacific railroad runs through the land; convenient to schoolhouse and church; water in abundance, and the water-right is sold with the land. Title perfect. A Map of the tract may be seen at the office of Mayor Beaudry, on Spring street, opposite City Council rooms. References may be made to Hon. B. D. WILSON or J. DE BARTH SHORT, at Lake Vineyard, who will take pleasure in showing the lands. Also, to Mayor BEAUDRY or D. FREEMAN, Los Angeles city.

A RARE CHANCE

FOR SALE—My Poultry Business, with my Farm of 115 acres; 22 acres of Vineyard and Orchard; House of 10 rooms; Barns; Granaries; 30 Chicken houses.

Receipts between $3,000 and $4,000 a Year,

Fully proved to the purchaser. Farm Implements, Wagon, Horses, Cows, etc., with Poultry (value over $3,000) included. **Price, $12,000,** one-half cash. Or I will sell a Half Interest and continue the business in partnership—the purchaser to reside on the place. Address,

M. EYRE, Napa, Cal.

In view of above I offer a few fine Fowls, Bronze Turkeys, etc. (not included in breeding pens and stock sold with farm), at reduced prices.

Fine Dairy Farm for Sale.

An undivided half interest in a fine Dairy Farm of 640 acres patented land, all inclosed. One hundred acres is good agricultural land, on which fine crops of timothy hay, potatoes, apples, etc., are raised. Balance affords fine grazing for 100 head of cattle and is also handsomely timbered. Plenty of fine running water at all seasons, and a valuable mill site and privilege are on the land. A good cash home market for all the produce of the place. Improvements, a comfortable house, three large barns, farming implements, wagons, etc. Also 40 head of good milch cows, 60 head of young cattle, horses, etc. There is also a large outside range of from 2,000 to 3,000 acres held under possessory title. Will be sold at a bargain. For particulars apply to

BERRY & CAPP, 418 Montg'ry St.,
Real Estate Agents and House Brokers

FOR SALE,

A large and well established NURSERY, with an extensive trade and an excellent business reputation. A large and well selected stock on hand that will nearly pay for the whole thing the coming season. It is the only first-class Nursery in the great Sacramento Valley.

For further particulars, apply to

W. R. STRONG & CO.,
, 8 and 10 J St., - - - - Sacramento,

—OR—

STRONG & WILLIAMSON,
418 and 420 Clay St., - - - San Francisco.

HUMBOLDT COUNTY LANDS

And Building Lots in the city of Eureka. For sale by DOLLISON & DART Eureka, Humboldt Co., Cal.

H. H. H.

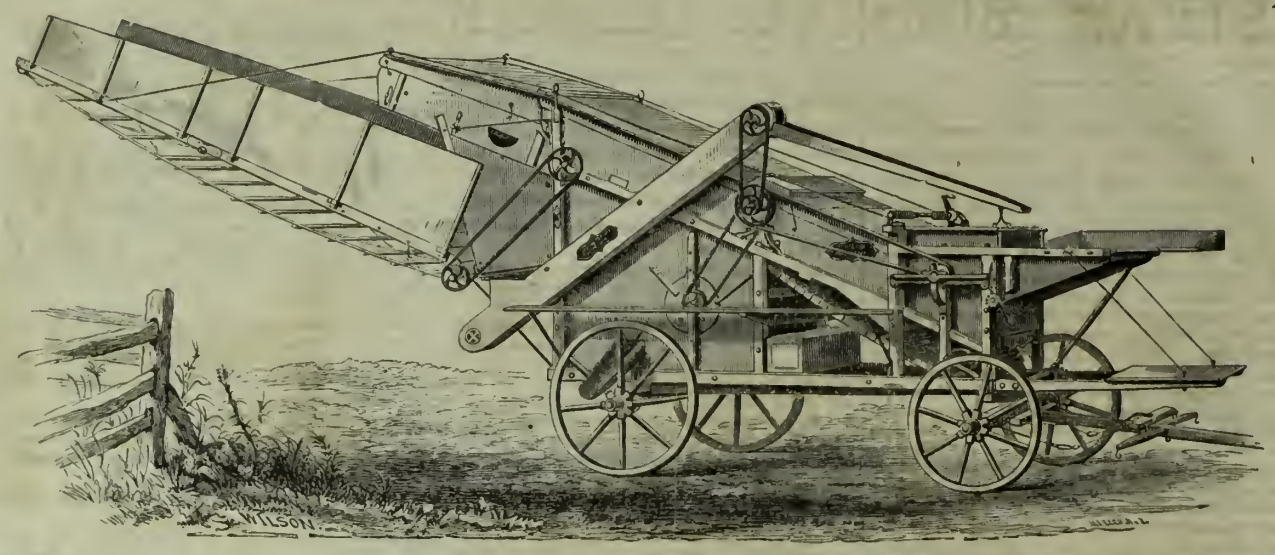
HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Callous Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,
Stockton, Cal.

SWEEPSTAKES THRESHER,



With all the Latest Improvements for the Pacific Coast, Manufactured for FRANK BROS. & CO.

We will warrant every Machine sold to do Better, Cleaner and Faster Work than any other Thresher on the Coast.

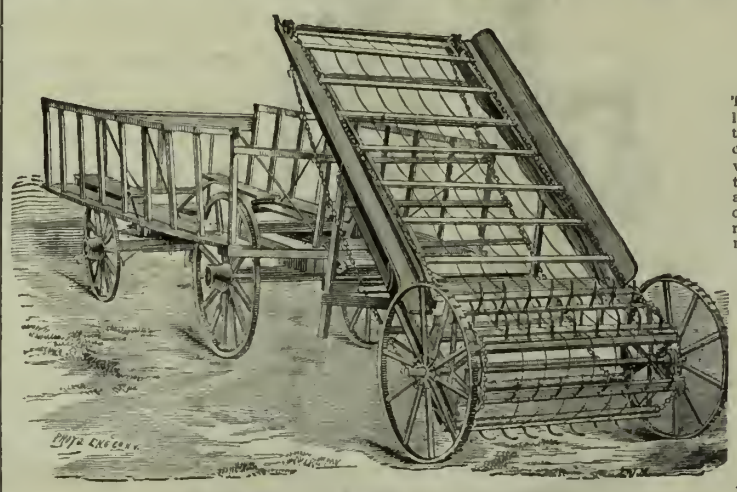
All who are in want of Threshers should not fail to call and see the improvements that have been put on the Sweepstakes for the Harvest of 1876. We also have the Cary Power, to which we would call special attention.

FRANK BROS. & CO.,
349 MARKET STREET, - - - - - - - - - SAN FRANCISCO.

KELLER & CO.,

IMPORTERS AND DEALERS IN

AGRICULTURAL IMPLEMENTS, MACHINES AND FARMERS' TOOLS.



FOUSTS' HAY LOADER.

FOUSTS' HAY LOADER,

The only Hay Loader in successful use in the world. This Machine loads from the winrow, thus saving the labor of cocking, and will elevate hay on to the wagon at the rate of a ton in three minutes.

Hay Loader in Operation.

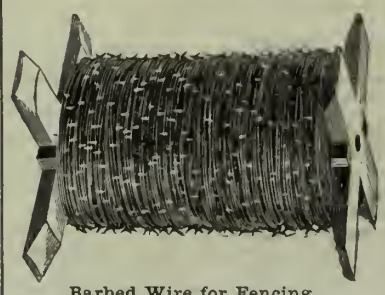
HORSE HAY RAKES, DOUBLE HARPOON HORSE HAY FORKS, at prices paid other dealers for the Single Harpoon.

Excelsior Mowers, Meadow Lark Mowers, Woods' Mowers,

FISH BROS.' PACIFIC WAGONS, FISH BROS.' SPRING WAGONS,

Barbed Wire for Fencing.

We also furnish the Barbs separate from the Wire. They can be attached to any Wire Fence, anywhere.



Barbed Wire for Fencing.

The Buckeye Riding or Walking Corn Cultivator,

MORE SOLD EVERY YEAR THAN THE COMBINED SALES OF ALL OTHERS.

STRAW and FEED CUTTERS,
Wine and Cider Mills,
Gorham Seed Sowers and Cultivators Combined,
PLOWS and HARROWS.

Everything belonging to the Implement trade. We import our own goods; have no local agent. Parties sending direct to us save a large commission. Address,

KELLER & CO.,
43, 45, and 47 J Street, Sacramento, Cal.

Buckeye Corn Cultivator.

E. B. MOTT, Jr.,
IMPORTER AND DEALER IN
STOVES, METALS AND TINWARE
And Sole Agent for the Rathbone Range.
53 and 55 J Street, Sacramento.

GOLD MEDAL

CALIFORNIA FRUIT DRIER

IS NOW OFFERED TO THE FRUIT GROWERS

—AS THE—

Cheapest and Best Method of Drying and Preserving Fruits and Vegetables.

WE ARE MANUFACTURING ALL SIZES OF THE DRIERS, TO SUIT THE WANTS OF THE FRUIT GROWERS.

Send for Circulars and Price Lists.

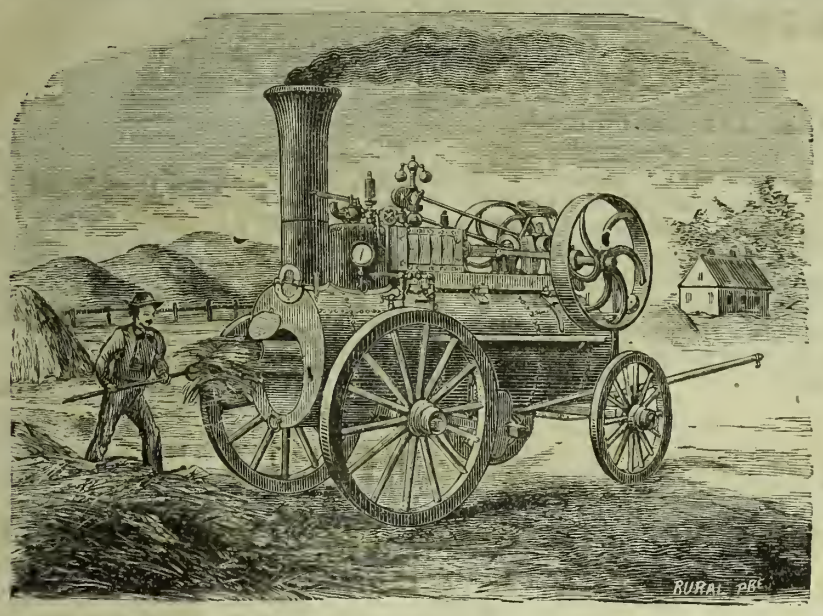
The Gold Medal California Fruit Drier

IS THE ONLY ONE THAT WILL DRY LARGE QUANTITIES OF FRUIT AND PUT IT ON THE MARKET AT A NOMINAL COST.

Sacramento Plow Manufacturing Company, Sacramento City, Cal.

THE ONLY RELIABLE

STRAW BURNING ENGINES.



RICE'S STRAW BURNING ENGINE.

These Engines were patented January 4th, 1874; re-issue May 4th, 1875, and are the first and only Engines which have been successful as Straw Burners.

These engines, for simplicity, durability, strength, and power, will surpass anything ever before invented. They are unquestionably the best engine in the world They are used with wood or coal, and no change is necessary, except to have suitable grate bars. These engines were sold last season to the largest farmers and best threshers in different parts of the state, and gave the very best satisfaction, as is proved by the many letters of recommendation which have been received.

CAUTION.

This is to give notice that I am the inventor and patentee of the original and only straw burning engine in use on this coast, and that any persons making or using straw burning engines other than those authorized by me or my agents, are infringing on my patent right, and will be proseeuted to the full extent of the law. I have already commenced suit against several of the infringers, and shall shortly extend my suit to all others. I have appointed Mareus C. Hawley & Co. as my sole agents for the manufacture and sale of my straw burning engines on the Paeific Coast, and all orders should be addressed to them.

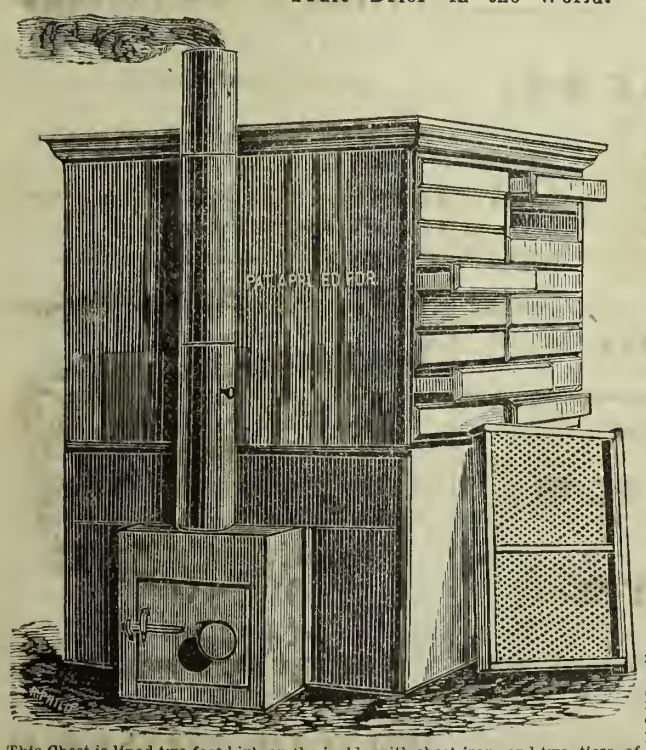
SAN FRANCISCO, January 10th, 1876. H. W. RICE.

Referring to the above, we beg to inform our friends that we are making arrangements for manufacturing the RICE STRAW BURNING ENGINE on a large scale, and hope to be able to supply the large demand for the season of 1876. We would request all those in want of an engine to send in their orders early. Send for circulars, testimonials, and all other information to our office, 108 and 110 Front Street, San Franci·co, and corner Second and J streets, Sacramento.

P3feb76tf* **MARCUS C. HAWLEY & CO.**

THE CHAMPION FRUIT DRIER.

The Cheapest, Most Economical, and the Most Rapid and Easily Managed Fruit Drier in the World.



Drying Fruit and Vegetables has become one of the departments of labor and profit among the industries of California, and we invite Fruit Growers to come and see our CHAMPION FRUIT DRIER, and test it with any kind of Fruit or Vegetables before purchasing.

This Drier consists of a Sheet Iron Furnace, from five to eight feet long, and two feet high, with a partition running horizontally six inches below the top, on the inside, the full length and breadth of the furnace, except a space of five inches at the back end. Beneath this partition the fire is kept, the heat of which passes to the back, and there turns in a range upward through this five inch space, and passes between the partition and top, back to the front end of the furnace and out of a chimney, rising above the chest of drawers.

This arrangement completely equalizes the heat at each end and all along the top of the furnace, so that no one drawer is, at any time, hotter than the others.

The attachment to hold the fruit for drying consists of a box or chest of drawers made wide enough to set out on each side and end about 15 inches from the furnace, and it is inclosed with tongued and grooved lumber, except space in front for the furnace and on each side for the drawers to pass in above the furnace. This Chest is lined two feet high on the inside with sheet iron, and two tiers of drawers come in from each side, supported by pieces passing from one side across the top of, and one foot above the furnace to uprights on the other, and meet in the center over the furnace. The bottoms of these drawers are made of wire cloth, on which the fruit is laid for drying. Over the center of each tier of drawers is a hole four inches square in the top, with a slide to keep it open or closed, as the case may require, and through these openings the hot air passes in a continuous current from the furnace below. The space in front, not filled by the furnace, is closed by a piece of sheet iron fitted over and down on each side, and to this piece there are two ventilators at the side of the furnace where the fire is hottest, to admit air. These two are the only places where air enters, and it is made very hot by the heat of the furnace, as it enters and passes rapidly up through the fruit in the drawers, and out at the ventilators at the top. This simple arrangement keeps a constant current of hot air passing through each drawer, which keeps it in the most rapidly drying process.

The chest of drawers is from four feet high to as high as desired. The drawers occupy about four inches space in the hight of the chest, and are about two feet deep, and 34 inches wide, and hold 25 pounds of fruit. But fruit will dry faster by putting in 12 pounds, and as it dries out a little, double it up. The machine can be built to have from 12 to 108 drawers, and will dry from 1,000 pounds to five tons per day, of green fruit.

We can dry any kind of Fruit or Vegetables in from one and a half to eight hours, and our machine is well adapted for drying Meats and Hops. This Dryer was thoroughly tested on the 32d of May, and many orders were taken from the Fruit Growers that tested it.

PRICES:

No. 1.—12 Drawers, drying	1,000	lbs.	of	Green	Fruit	per	day				$110.00
No. 2.—32 "	"	2.000	"	"	"	"	"	"			160.00
No. 3.—48 "	"	4,000	"	"	"	"	"	"			280.00
No. 4.-108 "	"	10,000	"	"	"	"	"	"			540.00

Orders must be sent to

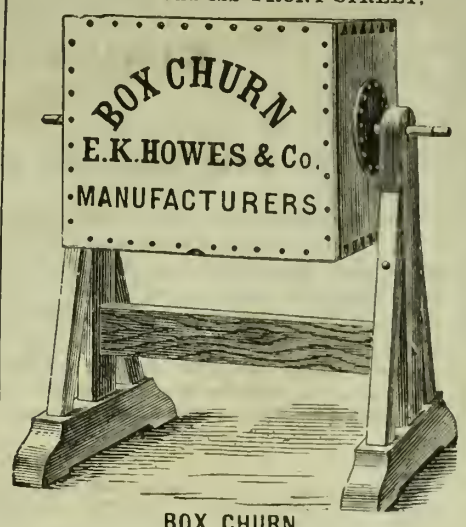
J. M. KELLER,

Of the firm of Keller & Co., J St., Sacramento City, Agent for California

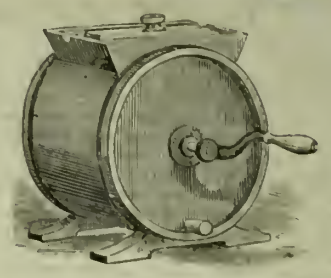
Parties wishing to purchase can test it with any kind of Fruit or Vegetables.

E. K. HOWES & CO.,

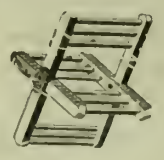
NOS. 118, 120 and 122 FRONT STREET, - - - - - SAN FRANCISCO.

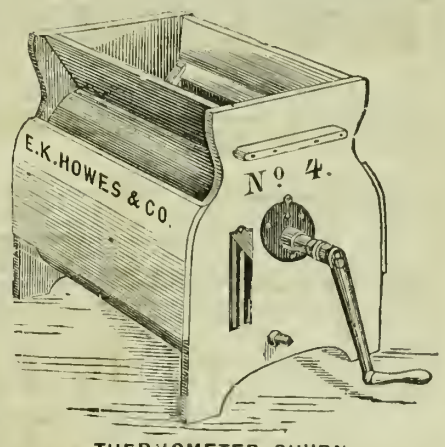


BOX CHURN.

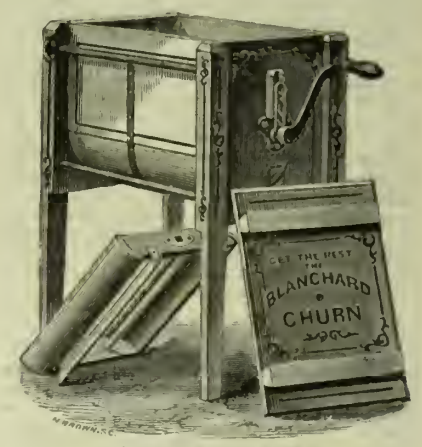


CYLINDER CHURN AND DASHER.





THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

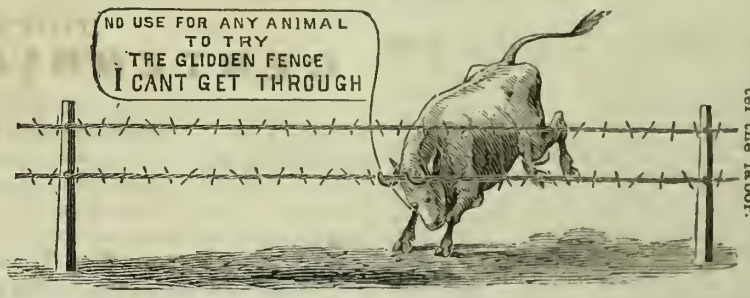
All Descriptions of Churns, Butter Workers and Molds, Butter Tubs, (35, 50 and 60 Pounds), Butter Kegs—Plain and Gal. Hoops—Wholesale and Retail

Send for Price-List and Illustrated Catalogne. Single Churns sent by Express, C. O. D., if desired.

Farmers, Take Notice. The Most Important Invention of the Age.

THE ENAMELED STEEL BARBED FENCE WIRE,

Patented by J. F. GLIDDEN.



It makes the most durable, safe, and reliable fence in the world against stock of all ages.

About one-half the cost of any other wood fence; and can be put up for one-quarter the labor.

The GLIDDEN PATENT BARB WIRE has been tested by thousands of practical farmers, who universally recommend it. We ask you to try it for the following, among other reasons: 1. If it does not answer the recommend, you can return it and your money will be refunded. 2. It is the cheapest and most durable fence made. 3. It takes less posts than any other fence. 4. It can be put up for one-quarter the labor of any other fence. 5. Cattle, mules, and horses will not rub against and break it down. 6. The wind has no effect upon it, and fires will not burn it up. 7. Stock will not jump over or crowd through it. 8 Your crops will be safe as far as fence is concerned. 9. You will know where your stock is by night as well as by day. 10. You can draw enough in a buggy to fence 160 acres, and two men can put it up in two days. 11. Because it is what every farmer needs. 12. Because it was invented by a practical farmer and you will say, after a fair trial, it is the BEST FENCE IN THE WORLD! 13. The change of seasons has no effect upon it—it being twisted, holds its tension. 14. The wire is manufactured entirely from steel, which has a relative strength of over 30 per cent. greater than that of any common iron wire. 15. The only steel coppered wire barb. 16. The only barb that cannot be displaced with thumb or finger, or cattle's horns. 17. The only barb with prongs projecting from between the twisted wire, and cannot be bent, broken, or rubbed off, and never need replacing. 18. The only coiled barb with broad base on main wire, which renders it immovable. 19. The only barb wire which, during process of manufacture, its strength is tested equal to that of two-horse power. 20. The only barb put on by machinery—it is not pounded on with hammer and indented in main wire to hold its place. 21. The only barb wire that gives universal satisfaction, and has greater sale than all others put together. ☞Be sure and ask for the GLIDDEN PATENT BARB WIRE. Enquire of Hardware and Agricultural Dealers. Samples sent free of charge by addressing

JONES, GIVENS & CO.,

General Agents for the Coast. K and 10th Streets, Sacramento.

RIDER COMPRESSION AIR ENGINES

HAVE NONE OF THE FAULTS OF THE OLD CALORIC ENGINES, AND TEN TIMES THE POWER.

Not a Valve, Spring, Cam, Lever or Eccentric about them.

ARE NOT LIABLE TO GET OUT OF ORDER.

NO ENGINEER REQUIRED; A CHILD CAN RUN THEM.

Twenty to thirty pounds of coal will run a One Horse Engine ten hours, and will pump in same time TWENTY THOUSAND GALLONS FORTY TO FIFTY FEET HIGH.

They are well adapted for the use of Printers, Sausage Makers, Bakers, Machinists, Locksmiths, Churning, Sawing Wood, Bag Factories, Coffee and Spice Mills, etc.

Send for Circular and Price List, or call and see one in operation.

HUNTINGTON, HOPKINS & CO.,

Sole Agents for the Pacific Coast,

Junction of Bush & Market Sts., S. F.

A Standard Employment Agency in San Francisco.

The agency to which we would now call the attention of the readers of the CALIFORNIA PATRON, was established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to such dimensions that it has been compelled repeatedly to move into more commodious quarters, and now it occupies the large double store formerly occupied by M. Gray & Co., No. 625 Clay Street, next door west of the banking house of the San Francisco Savings and Loan Society, one of the most central business locations in the city. MESSRS. CROSETT & CO. are daily supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind. Nor do their orders contain requests for male help alone. Great pains is taken to supply our housewives with the very best Domestics, Cooks and General Housemaids that can be obtained. They would call the especial attention of GRANGERS AND FARMERS GENERALLY to their facilities for supplying farm help. Referring confidently to their past record for faithful attention to the wants of patrons, they have no hesitation in assuring all applicants who may favor them with their orders, that they can nowhere else be better or more promptly served than by applying to this old established agency. Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in jodging of the merits of those who apply to him for situations. And his well established and wide extended reputation brings to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

All this advantage Mr. Crosett gives to those who favor him with their orders, and that, too, without any expense to the employer—all the fees, (which, by reason of a large business being transacted, are moderate), being paid by the employee. The Employment Agency of Messrs. Crosett & Co. is supplying a great need in our State and we take pleasure in commending it to all readers of the PATRON.

Fruit Jars.

Looking back over the wioter months, we cannot fail to appreciate the work of those benefactors of the human race who first discovered the means of preserving through the cold, chserless season, the products of summer and autumn, and stocking our tables with fruits, on which the golden rays of the sun seem yet to linger. If ever there was a person who deserved to be canonized, it was most surely the inventor of the "fruit jar," which has been the means of adding so to our pleasures and comfort. Compare the tasteless dried fruits of a few years back, or the sticky, oversweetened preserves, to the rich and luscious peach, nsctarine, etc., put up in its own juics, tho artificial against the natural, and see which will win. The season of fruits and flowers is approaching rapidly, and ere we are aware of it, summer will be upon us, with all its joys, to be followed by the more mature and mellow autumn. There is an old adage which advises us to "make hay while the sun shines," and in the midst of plenteous harvests we must not forget that winter lurks close after their bright laughing train, nor omit to prepare to carry as much of the joys of the fairer seasons with us when we are compelled to submit to his sway. In fine, it is just the time to begin to cast about us for the means of storing away a supply of good things in the shape of fruits and vegetables. There is no investment which so richly repays a housekeeper as the money spent in "fruit jars." Every family should, if they are so situated as to render it possible, lay in a store of fruit and vegetables, both as a sanitary precaution and as a peacemaker. Nothing can conduce more to preserve health than the plentiful use of such food during the winter months, and we know of nothing more calculated to settle family difficultics, or smooth the brow of an irritated husband or wife, than a fresh dish of vegetables or luscious fruit on an icy day. What are the best kind of fruit jars? Well, the only answer we can give to this question is to refer to those advertised in our columns. —*Crockery and Glass Journal.*

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in

FLOWERING PLANTS AND BULBS, FRUIT AND ORNAMENTAL TREES, ETC. FANCY WIRE DESIGNS, GARDEN TRELLISES, SYRINGES, GARDEN HARDWARE.

Comprising the Most Complete Stock

EVER OFFERED ON THE PACIFIC COAST.

Prices Unusually Low.

☞Trade Price List on application.

*,*My "Guide to the Vegetable and Flower Garden' will soon be ready, and will be sent FREE TO ALL CUSTOMERS. It will contain instructions on the culture of Fruit, Nut and Ornamental Tree Seeds, Tobacco, Alfalfa, etc.

R. J. TRUMBULL,
419 and 421 Sansome street, S. F.

$250 A MONTH--Agents wanted everywhere. Business honorable and first class. Particulars sent free. Address J. WORTH & CO., St. Louis, Mo.

STRAW BURNING ATTACHMENT.

KING'S PATENT.

The Only Successful Burner Yet Introduced.

Having secured the exclusive right to manufactnre and attach to engines J. R. KING'S P STRAW BURNING ATTACHMENT, I respectfully invite the attention of the threshers to notice why it is superior to all other Straw Burning Engines. They are so constructed as to burn Wood, Coal or Straw, and reqnire one-third less fuel than any other Burner; can be changed to burn either in five minutes, thus avoiding the loss of time, and favoring threshers in localities where it is necessary to burn Coal or Wood. It is easy to keep up the necessary amount of steam with Straw as fuel, and does not require an experienced person to fire it. Boys with bnt little instruction have fired them the whole season, and in many cases the engineer has done it and attended to his engine. They have given entire satisfaction in every case.

MODESTO, October 9th, 1875.

MR. J. R. KING—*Dear Sir:*—We have used your Attachment on our Automatic Headley Engine the past two seasons; it furnishes all the power necessary to run our large Pitts Separator with a Jackson Feeder attached; it more than gave satisfaction to all the farmers for whom we threshed; it required but little straw to furnish the necessary amount of steam; our engineer had a boy to fire it, and he attended to the Separator and Engine; it was much safer than a wood burner, for when we wished to stop or move, all that was necessary was to close the door and everything was perfectly safe. We used no spark arrest, as there were no sparks to arrest. It was a perfect success in every particular. Yours, etc., BENTLY & YOUNG.

LINDEN, October 16th, 1875.

MR. J. R. KING—*Dear Sir:*—Having used one of your Straw Burner Attachments on my Amea Engine (wood burner) No. 3, I feel it my duty to state that it proved to be far more than I expected. It furnishes sufficient power to operate my large Pitts Separator. I have seen several regular Straw Burning Engines in operation, and would not exchange for any small consideration. I used it all the season without the least difficulty and know it is a success. Yours, etc., J. H. DUNCAN.

The following parties used my Attachment on their Wood Burning Engines last season: Covert & May, Grayson, Stanislaus county; W. H. Gilmore, Stockton, on an old style Headley Engine, 8x12 cylinder; Morse Bros., Modesto, Stanislaus county; C. F. Leavenaworth, Modesto, Stanislaus county, old style Hoadley, 8x12 cylinder. On the 13th of May, at Stockton, in a test of Straw Burning Engines, a very lively competition ensued between the different styles and patterns of machinery, particularly between the two Straw Burning Engines. My Attachment claims superiority and preference over all others on account of its adaptability to all styles and patterns of wood or coal burning engines, to which it can be fitted. It has a conical feed tube or funnel, through which the straw is fed to the fire box, the interior arrangement of which is also peculiar, containing a half set of coarse grate bars standing six to ten inches high, and adjustable to any hight desired and sloping toward the front. In front of the tubes a circular concave plate is so arranged as to cause this draft to first strike the top of the boiler and then draw down behind the plate through the small flues. Engines rigged with this burner are absolutely safe from sparks, there being no necessity even for a spark arrester on the smoke stack. To show how rapidly it makes steam we add the following record of its performance on Saturday, attached to a Gaar, Scott & Co.'s portable engine: The fire was lighted with the boiler partially full of cold water, (two gauges cold,) and in 25 minutes the whistle was blown, the gauge showing a pressure of 10 pounds of steam; in 30 minutes, 20 pounds; in 32 minutes, 30 pounds; in 34 minutes, 40 pounds; in 35 minutes, 45 pounds; in 37 minutes, 50 pounds; in 38 minutes, 55 pounds; in 40 minutes, 60 pounds; in 42 minutes, 65 pounds; in 45 minutes, 70 pounds; in 47 minutes, 80 pounds; in 49 minutes, 90 pounds; in 50 minutes, 100 pounds. On reaching a pressure of 100 pounds the barley mill, to which it was attached by a belt, was started and run to its full capacity, grinding at the rate of two tons per hour; during this time steam raised to 130 pounds, pumping more than a full supply and frequently blowing water out of the boiler; then stopped firing until the steam gauge indicated 80 pounds; commenced firing again and got 140 pounds in 25 minutes; water raised in boiler to three gauges; mill run to full capacity all the time; this was a Gaar, Scott Engine, cylinder 7x13 inches; boiler, diameter, 29 inches; 27 flues, 2½ inches diameter, and 54 inches long; fire box, length, two feet eight inches.

The Attachment can be seen at H. C. Shaw Plow Co.'s Warehouse, Stockton, and at their Branch Store at Cressey Station, Merced county. Byron Jackson, Woodland, Patentee of Self Feeder, agent for Solano, Yolo and Colusa counties.

All orders addressed to J. R. King, Patentee, in care of the Globe Iron Works, or H. C. Shaw Plow Company, Stockton, will receive prompt attention. Send for Circulars.

JOHN CAINE, Proprietor Globe Iron Works,
STOCKTON, CAL.

JOHN H. GOVE'S
CENTENNIAL HAY PRESS.

Farmers and Hay Pressers will find it to their advantage to examine this Press before buying any other. It is built compact, combining lightness for moving with the greatest power and durability in its working parts, capable of making the average 250 pound bale, more or less, baling 10 to 15 tons per day, with three men and a pair of horses, they traveling only 36 feet to operate it. No excavations required for this Press. This is the original Gove Press improved, after an experience of building Presses in the States the past 15 years, where they gave the best of satisfaction. **Price, No. 1, $250.**

Manufactnred and for sale, or built to order, at the EUREKA GRAIN STORAGE WAREHOUSE, by **JOHN H. GOVE** or **ANDREW J. GOVE,** Box 1122.

A Liberal Disconnt to the trade. For Sale by all Agricultnral Dealers.

FAULKNER'S EXCELSIOR

Portable Family Fruit Drier,

$65.00 to $75.00.

The Best, Cheapest and Only Practical Portable Family Fruit Drier Made.

It will do as good work as any Drier. It can be used in connection with the cook stove or any small stove; may be run in the house or out of doors. Is very compact and plain in its construction and simple in its management. A child can attend to it.

With this Drier every family can save their surplus fruit, and put it in condition to bring the cash or trade at the store. We have the world for a market; last year's stock is exhausted. There will be a ready sale at good prices for all you can make.

Manufactured and for sale by E. T. STEEN, 31 Beale street, where they can be seen in operation. Also for sale by Messrs. STRONG & WILLIAMSON, 418 Clay street, San Francisco, and Messrs. W. R. STRONG & CO., 8 and 10 J street, Sacramento.

County Rights for 15 years for sale low and on easy terms by

JAS. W. FAULKNER, Patentee,
31 Beale Street, San Francisco

MENZO SPRING,

Manufacturer of

Dr. Bly's Patent Artificial Limbs.

OFFICE AND ADDRESS,
No. 166 TEHAMA STREET,
Cor. Third, bet. Howard and Folsom, San Francisco
sowhp

Practical

BOOKS

—AT—

BANCROFT'S.

A. L. Bancroft & Co. keep on hand a large stock of American and European Books, Suitable for

CIVIL ENGINEERS,
FARMERS,
MACHINISTS,

And Industrial Classes generally, and supply them, post free, at published prices; for particulars of which see catalogues, which will be forwarded on application.

A. L. BANCROFT & CO.,
721 Market Street, S. F.

Rupture.

Use no more Metallic Trusses. No more suffering from Iron Hoops or Steel Springs. Dr. Rowe's Patent Elastic Truss is worn with ease and comfort night and day, and will and has performed radical cures when all others have failed. Reader, if you are ruptured, try one of Dr. Rowe's comfortable elastic appliances; you will never regret it. ROWE ELASTIC TRUSS CO., 609 Sacramento St., S. F. Send for Circular.

Dewey & Co. {224 SANSOME ST} **Patent Agt's.**

TO LEASE,

Valuable Farming Lands,

NEAR SAN FRANCISCO.

1,300 Acres of Splendidly Reclaimed Meadow Lands, on Sonoma Creek, in the Whole or in Subdivisions, on favorable terms, for a term of years.

The land is very fertile, perfectly reclaimed against floods, and admirably drained. It is beyond the influence of floods in the Sacramento River, and the water has never risen more than 20 inches against the levee, which is four and a half feet high and 14 feet broad. The first crop of barley put in last winter yielded three tons of hay per acre, and that which was not cut will yield heavily in grain. The soil is also superior for vegetables. It is 25 miles from San Francisco, and has six miles of frontage on Sonoma creek. The largest bay sailing craft can load from the banks at any point. Steamers touch at the wharf daily. Steamboat freights, $2.00 per ton; sailing freights, $1.00 to $1.50 per ton.

Maps can be seen and particulars obtained from

ROBERT J. MERCER & CO.,
REAL ESTATE AGENTS,
426 Montgomery St., S. F.

HEALD'S Business College.

24 Post street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It makes Business Education a specialty; yet its instruction is not confined to Bookkeeping and Arithmetic merely, but gives such broad culture as the times demand. Thorough instruction is given in all the branches of an English education, and Modern Languages are practically taught. The discipline is excellent, and its system of Actual Business Practice is unsurpassed.

LADIES' DEPARTMENT.—Ladies will be admitted for instruction in all the Departments of the College.

TELEGRAPHIC DEPARTMENT. — In this Department young men and young ladies are practically and thoroughly fitted for operators, both by sound and paper.

For further particulars call at the College, 24 Post street, or address for circulars, E. P. HEALD, President Business College, San Francisco, Cal.

P. of H.

GRANGERS, ATTENTION!!!

Grangers' and People's

IMMIGRANT BUREAU,

GRANGERS' BUILDING,
40 CALIFORNIA ST., - - - SAN FRANCISCO.

Farmers, send in your orders for help. We can send you all the good men you want at short notice, selected strictly according to your orders. Immigrants are arriving every day. All classes of help supplied, male and female. Address,

J. EARL,

General Immigrant Agent, appointed by the Committee on Immigration, Office No. 40 California street, at Grange Headquarters.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

LEA & PERRINS'

CELEBRATED

WORCESTERSHIRE SAUCE,

DECLARED BY CONNOISSEURS TO BE

THE ONLY GOOD SAUCE.

In consequence of Spurious Imitations of

Lea & Perrins' Sauce,

which are calculated to deceive the Public, LEA & PERRINS have adopted

A New Label,

bearing their Signature, thus—

Lea & Perrins

which will be placed on every bottle of

Worcestershire Sauce,

after this date, and without which none is genuine.

November 1874.

**** This does not apply to shipments made prior to the date given.*

Ask for LEA & PERRINS' Sauce, and see Name on Wrapper, Label, Bottle and Stopper.

Wholesale and for Export by the Proprietors, Worcester; Crosse & Blackwell, London, &c., &c.; and by Grocers and Oilmen throughout the World.

To be obtained of CROSS & CO., San Francisco.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

S. F. Market Report.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

San Francisco, June 21st, 1876.

Transactions in new grain are beginning. A vessel now loading at Vallejo will carry 300 tons new Wheat, and the *Winged Hunter*, loading at Oakland, will clear next week probably. There are a number of Wheat sales reported, which will be noted below. The harvest is progressing favorably, the only drawback being a temporary excess of heat, which was fatal to a number of laborers. Such spells are not of long duration in this State, and the fatal heat has already been replaced by tolerable weather.

Range of Cable Prices of Wheat.

The course of the Liverpool quotation for Wheat to the Produce Exchange during the days of last week has been as recorded in the following table:

	Cal. Average.	Club.
Thursday......	9s 11d@10s 2d	10s 4d@10s 6d
Friday..........	9s 10d@10s 1d	10s 2d@10s 6d
Saturday.......	9s 10d@10s 1d	10s 2d@10s 6d
Monday........	9s 10d@10s 1d	10s 2d@10s 6d
Tuesday........	9s 9d@10s 1d	10s —@10s 6d
Wednesday....	9s 9d@10s 1d	10s 1d@10s 6d

To-day's cable quotations to the Produce Exchange compare with same date in former years as follows:

	Average.	Club.
1874	12s 4d@12s 7d	12s 7d@12s 10d
1875.................	9s — @ 9s 2d	9s 2d @ 9s 6d
1876.................	9s 9d@10s 1d	10s 1d @10s 6d

The Foreign Review.

The European demand has slackened a little during the week because of more favorable outlook for the growing crops in England and a large visible supply of foreign Wheat. The telegraphed report from the *Mark Lane Express*, dated June 19th, is as follows:

"Concurrent with an improvement in the aspect of the crops, the anxiety about political matters has dropped. The market has consequently relapsed into a state of calm, and with large supplies from America and Russia the trade has been confined to supplying present requirements. As summer approaches the markets will, to a great extent, be subject to the influences of the weather; but there does not seem to be much probability that the price of Wheat will vary to a marked extent, and in the absence of speculation the probable wants of millers must form the basis for future transactions. Cargoes off the coast have shown signs of steadiness; but the general tone of the trade has been quiet. While very little inclination is shown to operate for future delivery, quotations remain nearly nominal. Maize has met but little attention, buyers holding off in the hope of further concessions."

In France also the effect of improved weather is apparent on the Wheat market, and the prices of Wheat and Flour have declined. Reports from Germany are less favorable. A Berlin dispatch to a New York paper says:

"The weather continues very cold for the time of the year, resembling more October than the end of May; thus the crops can make but little progress, and not only that, the plants look sickly and unpromising. This is particularly the case with our staple article of food, Rye, which cereal, in my humble opinion, will not yield on the average more than two-thirds of a crop, and in some districts there will not be sufficient grown to satisfy the home wants. Trade has been active, particularly the term trade in Wheat and Rye, at advancing rates."

In Northern Italy the grain, says the *Call*, at last accounts was backward, but the weather had improved and the outlook was favorable. In the southern part of the peninsula the prospect was satisfactory. In Hungary some of the cereal crops had suffered from late frosts, but more genial weather was rapidly repairing damages. Wheat had not suffered at all. The following statement shows the situation in Austria:

From advices that have been received Maize, Rye and the Oilseed crops have suffered damage, but, notwithstanding, the probability of reaping a good crop of these cereal productions in Austro-Hungary is not yet excluded. Wheat and Barley are described as healthy and sound.

Improved weather in Southern Russia inspired the hope, as one report puts it, that the injury occasioned will be repaired, and that the south of the empire will everywhere rejoice in a bountiful harvest.

In Holland reports were everywhere favorable for the Rye crop. From all these different statements it is evident that the prospect in Europe generally is favorable for a full average yield of cereals.

An Estimate of the New Crop.

The *Bulletin* prints letters from the various grain counties of the State and makes the following estimate of the probable amount of the crop:

Counties.	Acreage.	Yield in Centals.	Surplus in Centals.
Alameda...........	100,000	700,000	500,000
Butte..............	85,000	1,275,000	850 000
Colusa.............	175,000	2,625,000	1,800,000
Contra Costa.......	100,000	600,000	400,000
Merced............	275,000	1,925,000	1,250,000
Monterey..........	90,000	1,8 0,000	1,200,000
Napa..............	26,000	390,000	292,000
Sacramento........	30,000	450,000	200 000
San Benito.........	45,000	900,000	400,000
San Bernardino....	5 000	45 000	....
San Diego..........	9,000	90,0 0	60,000
San Joaquin.......	250,000	1,700 0 0	1,200,000
Santa Barbara......	30 0 0	600,000	400 000
Santa Clara........	120 000	840 000	550,000
Santa Cruz.........	6,000	80.000	....
Solano.............	150 0 0	1,500 000	1,000,000
Sonoma............	26 000	390,000	292,000
Stanislaus.........	250 000	1,750,000	1,300 000
Sutter.............	120 000	2,400 000	1,500,000
Tehama............	50,000	600,000	400,000
Tuolumne..........	8,000	96,000	....
Ventura...........	9,000	1,620,000	8,000
Yolo..............	120,000	1,200,000	800,000
Yuba..............	75,000	500,000	300,000
Totals......	2,169,000	24,776 000	14,702,000
Deduct San Francisco consumption, centals.			825,000

Surplus for export abroad in centals.......13,877,000

The Barley crop is estimated at 4,600,000 ctls, with a surplus for export of 4,200,000 ctls.

Freights and Charters.

The freight market has experienced another quiet week. Wheat rates to the United Kingdom are still quoted at £3 5s. There is now in port 31,623 tons of tonnage engaged for new crop Wheat loading, 8,481 tons for immediate loading, and 3,051 tons of miscellaneous tonnage. Following are the engagements of the week: Br bark *Inglewood*, 1,043 tons, Wheat to Liverpool, new crop loading, prior to arrival, £3 5s. Ship *Leading Wind*, 1,208 tons, to Cork for orders, U. K. or Continent, private, privilege of Antwerp direct, £3 12s 6d. Ship *Minydon*, 1,149 tons, Wheat to Cork for orders, U. K. or Continent, new crop loading, prior to arrival, private. Bark *J. D. Peters*, 1,085 tons, Wheat to Cork for orders, at £3 10s. Bark *Albert*, 510 tons, now at Victoria. Wheat from Astoria to Liverpool or London, at £3 15s. There is now in port an aggregate disengaged tonnage of 13,407 tons. The *Commercial News* places the total tonnage on the way to this port at 282,228 tons.

The Wool Trade.

The same authority comments upon the Wool trade as follows: "There has been an immense clearing out of Wool stock during the past few weeks. Two causes have contributed to this result, namely, a falling off in receipts and an active export demand. The heaviest weekly receipts for the season amounted to 13,200 bales, and the stock in this city on the 1st of May was probably the largest ever known. During the first three weeks in May the receipts averaged 8,200 bales per week. In the following week they fell off to 6,700 bales, then 4,200 bales, then 2,800 bales, and during the past week the quantity has been still less. The export movement in May was the heaviest this year, if not the largest in any previous year. The aggregate export by rail and sea from San Francisco and Sacramento was 10,158,800 lbs. The total exports for the first five months of 1876 was 16,116,100 lbs. All the Eastern buyers of Wool have returned to their homes, but they have left discretionary orders with their agents here. There is still considerable Wool on the market, but a great portion is low grade. On the other hand, some of the best clips of the State have only recently come to hand from the North."

Domestic Produce.

The following table shows the S. F. receipts of Domestic Produce for the week ending at noon to-day, as compared with the receipts of previous weeks:

Articles.	Week May 31	Week June 7.	Week June 14.	Week June 21
Flour, quarter sacks	28,851	83,107	44,764	31,278
Wheat, centals......	103,858	29,158	39,273	62,921
Barley, centals......	24,216	27,156	29,407	30,618
Beans, sacks........	1,106	296	1,685	1,012
Corn, centals........	4,829	3 713	7,684	5,010
Oats, centals........	679	3,633	4,039	1,250
Potatoes, sacks......	8,449	11,713	13,357	9,595
Onions, sacks.......	1,062	766	1,037	824
Wool, bales.........	5,131	4,022	3,213	4,226
Hops, bales.........	105	201	....	65
Hay, bales..........	845	1,527	2,002	1,369

Bags—There have been considerable transactions in Wheat Bags. Lots of 50,000 to 100,000 have sold at 13½c usual time. This may be said to be the general wholesale price, with 13¾@14c for jobbing small lots. The vessels from Calcutta are still much overdue. Three vessels from Liverpool, also known to carry bags, are due. There is a general impression that the market is a trifle weaker than for the last two or three weeks.

Barley—New Barley is coming in in large amounts, and is offered freely. Prices have undergone quite a reduction. Values can be learned from the following sales: 600 ctls new Feed at 95c, half silver; 100 sks old Feed at $1, silver; 80 do at $1.02½, half silver; 3,000 do old Feed at $1.10, half silver; 1,300 sks good new Bay Feed, in lots, at $1; 800 do do, $1 02½ per ctl, both all silver; 500 do do at $1@1.02½; 200 do old do $1 05, both gold; 1,530 do do, $1@1.02½, in lots, half silver; 155 do new Chevalier, the first of the season, at $1.12½, half silver; 80 sks old Feed at $1 02½, silver; 3,000 do old Brewing $1.10; 600 do new Feed, 95c; 500 do do, 90c 600 do do, 92½c per ctl, half silver; 750 sks good old Feed, $1, half silver; 200 good new, $1, all silver; 100 do old Chevalier, $1.12½; 155 do new do, $1.12½ per ctl, half silver; 700 do new Feed at $1, silver; and 500 do do at 87½c, gold.

Beans—Old Beans are in small supply and prices nominal. The Beans in the city are chiefly in the hands of a few houses. We hear of 6c per ℔ asked for old red Beans.

Corn—Corn is weak and lower. We note sales: 200 sks small round Yellow at $1 20, gold; 900 sks choice large Yellow, $1.17½; 250 do good, $1.15; 250 do White, $1.15, half silver; 125 sks Bay, $1.15, gold; 200 sks good large Yellow, $1.15; 200 ctls large Yellow, $1.15; 100 sks small Yellow, $1.20 per ctl.

Dairy Produce—The market presents no new features. There is still an abundant supply of Butter. Cheese is in excess and some of it is rated very low because of uneven quality, while other dairies sell readily at extreme prices. There is now no good Eastern Cheese in the market, and we discontinue quotations.

Eggs—Eggs are a shade weaker. Imports of Eastern eggs have been renewed, one house receiving nearly 300 cases this week. These have been sold at an average of 20@21c per doz. Since May 10th at least 200,000 dozen eggs have been brought here by the cars, chiefly from Iowa, and most of them have already passed from the hands of importers to retailers and bakers.

Feed—Prices for Hay are lower. We note the following sales: 42 tons new Cow at $9; 25 do do, $10; 50 do fair Oat, $10.50; 45 do do, $11; 42 do good Wheat and Oat, $12; 25 tons Clover at $10; 45 do good Oat, $11; 40 do do, $10 50; 42 do good Wheat and Oat, $12; choice Wheat, $13; 38 tons fair Wild Oat, $10; 54 tons good Wild Oat, $11; 60 tons good Wild Oat, $11; 25 tons good Wheat, $12; 25 tons Clover, in two lots, at $10@10.25; 53 do Oat and Clover, $10.50; 31 do good Wild Oat, $11.50; 16 tons fair Stock at $10; 54 do good cow, $10.50; 31 do fair Wild Oat at $11 50 per ton. There is still a chance to realize better prices on choice old Wheat. We hear $16 as possible for the very best.

Fruit—Early Peaches are now coming in at the rate of 500 boxes per day from Solano and Yolo counties, and prices show a corresponding decline. A few packages are arriving from the Sacramento river. Currants are plentiful and cheap. The first ripe Red Astrachan Apples came in during the week, and are selling by the single box at $2.50. Green Apples can be obtained at $1.50 per box, retail. The schooner *Ariel* has arrived from Tahiti with 220,000 Oranges. The vessel made a quick passage, and the fruit is large and fine.

Fish—The Fish stalls are plentifully supplied with all seasonable varieties, and some kinds, notably sturgeon, are unusually abundant. Mountain trout, packed in ice, come forward regularly, and are this week a shade cheaper.

Hops—There are hops held in the city at 12½@14c, without takers. We hear of no change from quotations below. The San Jose *Balance Sheet* of June 17th says: "The Hop prospect in the Willow district is very flattering, and the anticipated yield will be fully up to the best season since the fields were planted. The crop last year, although large, barely paid expenses, owing to the depression of the market. It is to be hoped that better prices will be offered for the present crop. Santa Clara county will be able to furnish about 150,000 ℔s of the famous Willow Grove Hops, if no damage is sustained between this and harvest." The New York trade continues unchanged. Emmet Wells reports destruction in some New York yards from a hail storm, and notes that the Colorado Potato beetle has begun depredations on the Hop vines.

Oats—Oats have undergone a considerable reduction during the week, and to-day are scarcely quotable over $2.25 per ctl, with sales as low as $1.80.

Onions—Onions are still quotable at last week's prices. We note sales: 40 sks good Red at 80c; 40 sks good Red at 90c; 40 sks Red, 87½c; 50 do do at 85c per ctl. Silverskins have sold up to $1 per ctl.

Potatoes—Old Potatoes are purchasable at any price. Forty sks good old Petalumas sold at 37½c per sack. In new Potatoes there have been considerable quantities of Early Rose coming from the Sacramento river and the Southern coast, but most of them are unripe and have to be sold at low prices. We note sales: 200 sks on the wharf at $1.12½@1.37½ per ctl; 25 do old Petalumas, 40c; 40 sks Half Moon Bay at $1.25 per ctl; 150 sks new on wharf at $1.40@1.50, the latter for a few very choice.

Provisions — Prices are generally unchanged. Fresh meats are dull, Smoked Meats are selling freely.

Poultry—Poultry is improved in price in our quotations below.

Vegetables—Nearly all kinds of Vegetables are cheaper and generally of an improved quality. Choice String Beans from Stockton and Summer Squash and Cucumbers from Alameda county have taken the place of the earlier supplies from Solano county. The latter region, however, still has the monopoly of the Tomato trade. Wholesale prices of Vegetables are given in our tables below.

Wheat—Prices rule in the same range as last week. The shading of the market can be learned from the following sales: 3,600 sks choice old Milling, in two lots, at $1 7; 3,000 do choice old Stockton, $1.75; 1,900 do good old Milling, $1.70; 1,500 do Coast, $1.52½@1.55; 800 ctls good Milling, $1.70; 3,000 do choice, in two lots, $1.75 per ctl; 3,800 ctls choice new, $1.60; 1,000 sks new Shipping, at an equivalent of $1.57½ alongside; 2,000 sks choice new alongside, $1.65; 382 sks new Wheat, $1.60; 1,900 sks choice old Milling, $1.80; a small consignment of new sold on 'Change at $1.62½.

Wool.—There is reported a little weaker feeling in Northern Wool since last week. Of general qualities and descriptions we note sale of 320 000 ℔s. at 13@17½c; the quotation for Northern is 19@21c. The Eastern markets are telegraphed as follows:

New York, June 17th.—The result of auction of woolens on Wednesday was satisfactory to all concerned. The sale ended late in the day, and included over 20,000 pieces. The effect of this sale on the Wool market has been an increased demand and strengthening of prices. This is noticeable particularly in the better quality of new Spring California, and for this description holders exhibit a degree of firmness that has not been witnessed for some time back. Sales are: 2,500 pounds Australia, 40 cents 134 bales Cape, about 33½ cents; 302,500 pounds of Spring California at 15½@18 cents for burry and slightly burry, and 20@24 cents for free; 28,000 pounds Fall do, 10@13 cents; 20 bales Oregon, 33 cents; 28 do Colorado, 18 cents; 63,000 pounds of Eastern Texas, 18@24 cents; 15 bags Western do., 21½ cents; 8,000 pounds scoured do., 44 cents; 12,000 pounds washed Ohio delaine fleece, 36 cents, and 20,000 pounds of China, 10,000 pounds East India, 10,000 Colorado, 50,000 pounds Oregon, 40,000 pounds old Western Texas, 287 bags new do., 50,000 pounds domestic noils, 75 bags super pulled, 2,000 Tennessee fleece, and 60,000 pounds X and XX Ohio, do., on private terms.

Boston, June 17th.—Wool dull; sales are almost exclusively confined to California, and prices are still in favor of buyers. Manufacturers appear to be quite indifferent, and low prices are no inducement to operate beyond immediate wants. There is, in fact, nothing encouraging to notice. Goods are saleable only at very low prices, and manufacturers are now more anxious to reduce their stock of goods than to purchase supplies of raw material. Sales of Ohio and Pennsylvania fleeces have been 104,000 ℔s, which cannot be quoted; XX Ohio and Pennsylvania at over 38@40c.; X 34@36c.; Michigan and Wisconsin fleeces, 30@35., and there is no pressure to buy at these figures. Transactions in California have been 760,000 ℔s., mostly Spring, from 15 to 27c., the latter for very choice. The principal sales of this description have been in the range of 20@25c., and include good average lots. Supplies continue to arrive quite freely, and there is a good assortment offering. Pulled Wool is plenty and dull. The principal sales have been in the range of 30@35c, for super and X. There has been scarcely any inquiry for combing during the week.

RETAIL GROCERIES, ETC.

Wednesday, m., June 21, 1876.

Butter, Cal. choice 30 @37
Cheese, ℔......... 18 @30
Eastern.......... 25 @31
Lard, Cal., ℔...... — @18
Eastern......... 20 @25
Flour, ex. fam, bl 6 25 @6 50
Corn Meal, ℔...... 2½@ 3
Sugar, wh. crsh'd 12½@13½
do lt. brown, ℔ 8 @ 9½
Coffee, green, ℔.. 23 @ 35
Tea, fine bl, 50, 65, 75 @1 00
Tea finest Jap, 55, 75, 90 @1 00
Candles, Adman'e 15 @ 25
Soap, Cal., ℔.... 7 @ 10
Rice, ℔.......... 8 @ 12½
Yeast Powders, dz. 1 50 @2 00
Bowen Bro. large can per doz....5 00 @— —
Small, do ......2 50 @ —
Bowen's Cream Tartar ℔........ — @ 75
Can'd Oysters, dz 2 00 @3 50
Syrup, S F.Gol'n. 75 @1 00
Dried Apples.... 10 @ 12½
Dr'd Ger. Prunes 12½@ 14
Dr'd Figs, Cal... 9 @ 10
Dr'd Peaches.... 11 @ 15
Oils, Kerosene .. 30 @ 40
Wines, Old Port 3 50 @5 00
do Fr. Claret..1 00 @2 50
do Cal., dz. bot. 3 00 @4 50
Whisky, O K, gal. 3 50 @5 00
Fr. Brandy...... 4 00 @8 00

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by Sutro & Co.]

San Francisco, June 21. 3 p. m.

Legal Tenders in S. F., 11 a. m., 89½ to 90. Silver, 4 to 5 per cent. discount.

Gold in N. Y. 112½.

Gold Bars, 900 to 9.0. Silver Bars, 12 and 20 per cent discount.

Exchange on N.Y., 50-100 per cent. premium for gold; on London bankers, 49; Commercial, 49¼; Paris, five francs per dollar; Mexican dollars, 9 per cent. discount.

London — Consols, 93 to 93¼; Bonds, 102¼.

Quicksilver in S. F., by the flask, per ℔, 48@49c.

DOMESTIC PRODUCE.

[WHOLESALE.]

Wednesday m., June 21, 1876.

BEANS.
Bayo, ⅌ ctl...... 4 50@5 00
Butter........... 1 90@2 25
Pea..............1 92½@2 00
Pink............. 2 50@3 00
Sm'l white..... 1 60@1 90
Lima........... 1 90 @2 00

BROOM CORN.
Common, ⅌ ℔.. 2 @ 3
Choice, do ... 4 @ 5

COTTON.
Cotton, ⅌ ℔..... 15 @ 18

DAIRY PRODUCE, ETC.

BUTTER.
Cal. Fresh Roll per ℔ .... 22½@ 27½
Point Reyes..... — @ 30
Firkin........... 22 @ 26
W'st'n Reserve. 16 @ 20
New York....... — @ —

CHEESE.
Cheese, Cal., ℔.. 10 @ 15
do Old......... — @ —
Eastern .... — @ —

EGGS
Cal. fresh ⅌ doz 26 @27½
Ducks'.......... — @ 25
Oregon.......... — @22½
Eastern......... 21 @ 23

FEED.
Bran, per ton....— — @19 00
Corn Meal.......27 50 @28 00
Hay............ 8 00 @13 00
Middlings ....24 00 @— —
Oil cake meal...— — @37 50
Straw, ⅌ bale... 50 @ 60

FLOUR.
Extra ⅌ bbl....5 50 @5 75
Superfine........4 50 @4 75
Graham, ⅌ bbl..5 50 @ —

FRESH MEAT.
Beef 1st quality ℔. 5½ @ 6
Second do .... 3½@ 4
Third do....... 2 @ 3
Spring Lamb.... 4½@ 5
Mutton......... 2½ @ 3
Pork, undressed 6¼ @ 6½
do, dressed.... 9½ @ 10
Veal. .... 5 @ 5½
Milk Calves..... 6 @ 6½

GRAIN, ETC.
Barley, feed ctl 1 00 @ 1 05
do new..... 90 @ 92½
do brewing. 1 10 @ 1 15
Chevalier...... 1 25 @ 1 35
Corn, White... 1 15 @ 1 20
do Yellow.... 1 15 @ 1 17½
Oats, ... 1 90 @ 2 25
Milling........— — @ 2 30
Rye .... 2 00 @ 2 15
Wheat shipping 1 60 @1 70
do milling.. 1 70 @1 80

HIDES.
Hides, dry....... 10 @ 13
do wet salted 6 @ 6½

HONEY, ETC.
Beeswax, per lb.. 25 @ 27½
Honey in comb.. 12½@ 15
do Strained... 8 @ 10

HOPS.
New crop....... 10 @ 13

NUTS-Jobbing.
Alm'ds h'rd sh'l ℔ 8 @ 10
do, soft sh'l... 18 @ 20
Brazil do........ 14 @ 16
Cal. Walnuts.... 12 @ 14
Chile Walnuts.. 11 @ 12½
Peanuts per lb.. 9 @ 10
Filberts.......... 15 @ 16
Pecanuts........ 17 @ 18

ONIONS.
Union City ctl. — @ —
Stockton...... — @ —
New Red....... 75 @ 1 00
Silver Skins.... 1 00@ —

POTATOES.
Petaluma, ⅌ ctl. 50 @ 75
Salt Lake....... — @— —
Humboldt...... 50 @ 1 00
Early Rose, new 75 @ 1 12½
Sweet.......... — @— —
New. .... 1 25@ 1 50

POULTRY & GAME.
Hens, per dz... 8 50@10 00
Roosters......... 9 00@11 00
Broilers........ 4 00 @ 7 00
Ducks, tame, dz 5 00 @7 00
do Mallard.... — @5 00
do Canvass.... — @5 00
Geese, per pair 1 75 @2 25
Wild Gray dz 3 00 @4 00
White.........1 50 @2 00
Turkeys, Live, ℔ 15 @ 20
do Dressed .... 20 @ 22
Quail, per doz ... — @
Snipe, Eng., doz. 2 00 @2 505
Doves, per dozen 50 @ 57
Rabbits..........1 00 @1 00
Hare, per doz. 1 50 @2 10

PROVISIONS.
Cal. Bacon, L't, ℔ 15½@ 16
do Medium ... 14½@ 15
do Heavy...... — @ 15½
Lard............ 14 @ 16½
Cal. Smoked Beef 9 @ 10
Eastern do.... — @ 10
East'rn Should's — @ 10
Hams, Cal....... 14 @ 14½
do Armour .... 14½@ 15
do Worster's 16½@ 17
do Dupee's.. 16 @ 16½
do Davis Bros' 16½@ 17

SEEDS.
Alfalfa, Chile ℔. 8 @ 10
do California. 12 @ 13
Canary...... ..... 18 @ 20
Clover Red...... — @ 22
do White ..... 50 @ 55
Cotton........... 6 @ 10
Flaxseed........ — @ 3¼
Hemp........... 12½@ —
Italian Rye Grass 25 @ 30
Perennial do.... 20 @ 30
Millet........... 10 @ 12
Mustard, white. 3 @ 3½
do. Brown. ... 3 @ 3½
Rape............ 7 @ 9
Ky. Blue Grass.. 30 @ —
do 2d quality.. 29 @ —
Sweet V Grass.. — @ 75
Orchard do.... 30 @ 35
Red Top do... — @ 25
Hungarian do 8 @ 12
Lawn do...... 50 @ —
Mesquit do... 20 @ 25
Timothy ..... 11 @ 13

TALLOW.
Crude, ⅌ ℔ ..... 6¼ @ 7
Refined ... 8¼ @ 9

WOOL, ETC.
SPRING—
Seedy, ⅌ ℔ ..... 9 @ 12½
Choice long free 17 @ 18
do Northern...19 @ 2
do short........ 13 @ 16½
Burry............ 10 @ 14
Oregon .... — @ —

FRUITS AND VEGETABLES.

[WHOLESALE.]

Wednesday m., June 21, 1876.

FRUIT MARKET.
Oranges Mex. ⅌ M.............— —@— —
Tahiti, do ..... 20 00@25 00
Cal. do. ....— —@— —
Limes, Mexican, ⅌ M...........10 00@— —
Malaga Lemons, ⅌ bx...........— —@— —
Cal. ⅌ 100...... 2 00@ 2 50
do Sicily ⅌ b'x. 9 00@10 00
Bananas, ⅌ bnch 2 50@ 4 00
Cocoanuts, ⅌ 100. 6 00 @ 7 00
Pineapples, ⅌ dz. — @ —
Apples, ⅌ box... 75 @2 00
do Choice... .. — @ —
Apricots, ℔..... 3 @ 5
Blackberries..... 12½@ 20
Cherries, ⅌ lb... 6 @ 10
Tartarian..... 15 @ 22½
Cherry Plums, box 75@ 1 00
Figs.............. 12½@ 40
Gooseberries.. 5 @ —
Huckleberries... — @ —
Strawber's ⅌ case 10 00 @13 00
Pomegranates.... — @ —
Raspberries..... 12½@ 20
Currants, ⅌ case 3 00@3 50
Cranberries ⅌ bbl. 13 00@14 00
Peaches, ⅌ box 1 00@ 2 00
Pears, ⅌ bx...... 1 00@1 50
do Choice.... — @ —
Crab apples, ⅌ bx — @ —
Peaches, ⅌ ℔...... 12 @12½
Apricots, ⅌ ℔. .... 14 @15
Plums, ⅌ ℔ ..... 5 @ 6
Pitted, do ⅌ ℔ .. 17 @22
Raisins, imported. 3 25 @3 75
Cal. Raisins..... 5 @ 10
Black Figs, ⅌ ℔..... 5 @10
White, do ..... 12½@15
Prunes........... 12½ @17
Citron............ 28 @ 30
Zante Currants 9 @ 10

DRIED FRUIT.
Apples, ⅌ ℔. . . 9 @12½
Pears, ⅌ ℔ .... 8 @13

VEGETABLES.
Asparagus ⅌ box. . 1 50@2 25
Beets ⅌ ctl.... ...... — @ 75
Cabbage ⅌ 100 ℔s. 75@ —
Carrots, ⅌ 100 ℔s . 75@ —
Cauliflower, doz.. 50@ 75
Celery, doz......... 50 @—
Garlic, ⅌ ℔. .. .. 3½@ 5
Green Peas ⅌ ℔ .... 1½@ 2
Green Corn ⅌ doz. 10 @12½
Sum'r Squash ⅌ box. 75 @1 00
Marrow fat Sqsh, tn — @—
Artichokes, ⅌ doz.. — @—
String Beans, ⅌ ℔ 1½@ 2½
Lima Beans.........— @—
Parsnips ....— @—
Shell Beans.........— @—
Peppers, green, bx. — @—
Okra................ — @—
Cucumbers, ⅌ doz 20@ 25
Tomatoes, box....1 00@1 25
Egg Plant, box.. — @ —
Rhubarb........... 2½@ 3
Lettuce, doz ..... 12½@ —
Turnips, pr ctl...... 75@ —

Woodward's Gardens embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

FARMERS,

BEWARE OF FIRE!

The undersigned, having been appointed Manager for that particular Branch of Insurance, is prepared to

INSURE GROWING GRAIN

And While Standing in Stacks and Sacks.

Companies Represented:

SVEA, of Gothenburg, Sweden.

FRENCH INS. CORPORATION. of Paris, France.

LOCAL OFFICES

AT PRINCIPAL POINTS IN THE GRAIN-GROWING DISTRICTS IN ALAMEDA AND BUTTE COUNTIES AND SAN JOAQUIN VALLEY. THE BUSINESS WILL SOON BE EXTENDED THROUGHOUT THE GRAIN DISTRICTS OF THE STATE.

MAIN OFFICE, Stockton, Cal.

CHAS. W. DOHRMANN, Manager.

Nurserymen.

LOS GATOS NURSERIES,

S Newhall, Prop'r, - - San Jose, Cal.

A large and general assortment of

FRUIT AND ORNAMENTAL TREES,

Evergreens, Flowering Shrubs, Roses,

Greenhouse Plants,

GRAPEVINES, SMALL FRUITS, Etc.

I offer for sale a well assorted, well grown and healthy stock. Low-topped stalky fruit trees a specialty. Address

S. NEWHALL, San Jose.

SANTA BARBARA NURSERY,

Located seven miles west of Santa Barbara, Cal. Depot, Cor. Montecito and Castillo streets.

JOSEPH SEXTON, - - - Proprietor.

CULTIVATOR OF

Fruit, Nut and Ornamental Trees. Also Orange, Lemon, Lime and Palm Trees, Pot Plants, and Hardy Ever green Shrubbery.

ISLAND VIEW NURSERY,

B. B. Williams & Co., - - Santa Barbara.

Ornamental Trees, Shrubs, and Flowers; Large Evergreens, Araucarias, Pines, Cypress, etc.; Fine assortment of Camelias and Lily Bulbs constantly arriving from China and for sale very cheap. Plants packed and delivered on the wharf for shipment, free of charge.

B. B. WILLIAMS, Santa Barbara, Cal.

BLOOMINGTON NURSERY, F. K. PHŒNIX, Bloomington, Ill. Price lists free. 4 Catalogues, 25c.

Seedsmen.

Seeds. Seeds.

IMPORTED.

Crosby's Extra Early
Marblehead Mammoth
Stowell's Evergreen
Mexican Sweet, New } Sweet Corn.

Early Canada
Early Dutton } Yellow Flint Corn.

Long Red Mangel Wurzel
Yellow Globe
White Sugar } Beet Seed.

ALSO, EVERY DESIRABLE VARIETY OF VEGETABLE AND FLOWER SEEDS, GRASS AND CLOVER SEEDS, ETC., OFFERED AT WHOLESALE OR RETAIL.

GEO. F. SILVESTER,

No. 317 Washington Street,

v8-tf SAN FRANCISCO.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

GRANT & CAMERON,

Seedsmen,

MELBOURNE, VICTORIA, AUSTRALIA,

Collectors of all Seeds of Trees and Shrubs indigenous to the Australian Colonies, including

Blue, Red and Peppermint Gums, Acacias, Etc.

LAW, SOMNER & CO.,

MELBOURNE, VICTORIA, AUSTRALIA & DUNEDIN, OTAGO, NEW ZEALAND,

Offer Collections of Native Seeds, including

Blue, Red, and all other Varieties of Gums, Etc.

☞ Illustrated Catalogue free on application.

MERCHANT MILL FOR SALE,

And 150 Acres Land. Turbine Wheel, 190 feet fall, 35 barrels per day. Good Home Market and Never Failing Water.

S. A. POLLARD,
San Luis Obispo.

ANGELL'S CHARCOAL DENTAL SOAP for Whitening and Preserving the Teeth. J. W. ANGELL, Prop., San Francisco.

Agricultural Articles.

J. W. CASSIDY'S
FRUIT DRIER.

A New Invention, although Thoroughly Tested, which Combines all the Improvements.

We warrant a complete success in drying all sorts of fruit and vegetables as thoroughly and more expeditiously than any other Machine, for less amount of fuel by 35 per cent, as we utilize all the waste heat which is lost by all other Machines.

Its simplicity of construction and its cheapness will put it in the hands of all who may want a Drier. We don't pretend to ask from $1,200 to $1,500 profit and royalty. We are willing that producers should make the profit and keep it. The Machine has been tested to our entire satisfaction, and met our most sanguine expectations. The fruit dried by our Drier was fully as good as that dried by any of the renowned Driers. We would say to all who contemplate putting up Machines, that we can make it a decided inducement for all such to give us a call, as we want to sell the entire right of the United States, State, County or Local, at such prices that the poor as well as the rich can use them. The capacity of the Machine will be in proportion to the size, ranging from 100 to 500 feet drying surface. This dryer was more fully illustrated and described in the RURAL PRESS of May 20th, 1876. Communications to T. F. BACHELOR, 622 Clay St., S. F., or to J. W. CASSIDY, Petaluma, Cal., will be thankfully received and promptly attended to.

NEW

Agricultural Implement Depot

—AT—

Watkins & Scott's Alameda Foundry,

SAN JOSE, CAL.

Agent for Walter A. Wood's New Iron Mower, Reaper, and Self-Binder, Haines' Single-Gear Header, Improved Sweepstakes Thresher, and Sulky Rakes; also, the Celebrated Revolving Sulky Rake, and the Champion Revolving Rake, and the well known Tiffin Revolving Rake; La Belle Farm Wagons, and Spring Wagons of all descriptions.

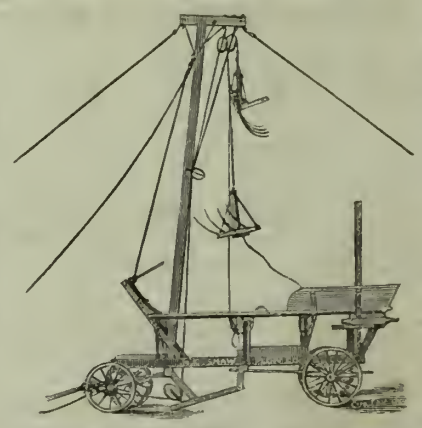
The attention of farmers is particularly called to the

New Revolving Sulky Rake.

It has met an enormous sale at the East and in and around Sacramento.

Also, all kinds of new and second-hand machinery for sale. Farmers and others will find it to be to their interest to call on me before buying, as I am selling everything very low for cash.

ORRIN TABER.



This cut represents a DERRICK AND FORK, for the purpose of supplying GRAIN IN THE STRAW TO A THRESHING MACHINE. The success of this machine is beyond question. It is a saving of EIGHT OR TEN DOLLARS PER DAY over the hand fork mode. We also make DERRICKS for the purpose of STACKING HAY OR GRAIN, which meet with great favor everywhere. Manufactured by MATTESON & WILLIAMSON, Stockton, Cal.

TABER'S
IMPROVED HAY FORK.

[Patent Applied For.]

Is the most perfect, and easiest operating derrick fork in existence. One man can operate it with the greatest ease, as the strain of lifting the fork causes it to grapple its load automatically, while a pull upon the releasing cord, when the fork has been lifted to the desired place, causes it to drop the load instantly.

There is nothing in the construction of this Fork that is liable to get out of order.

Farmers will do well to examine this Hay Fork, as it saves expense and greatly facilitates the handling of hay, grain and straw. Communications addressed to

J. T. HOYT, Gen. Agent,

SAN MATEO, CAL,

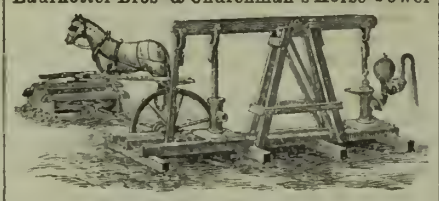
Will receive Prompt Attention.

VINE AND FRUIT GROWERS,

To Raise Large Crops You Must Irrigate.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros & Churchman's Horse-Power



[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour.

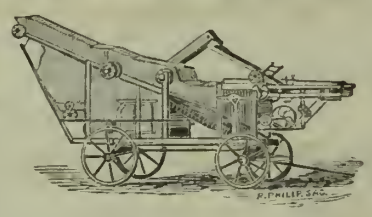
WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Flo se-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

JACKSON'S
PATENT FEEDER & ELEVATOR



For Threshing Machines.

The most successful Automatic Feeder yet invented; it has had the severest tests in all kinds of grain, long, short, wet or weedy, during the past six years. There are over two hundred in use in the Sacramento valley. I will give full guarantee to purchasers. Send for special circular. Address,

BYRON JACKSON,

Patentee & Manufacturer,

Woodland, Yolo County, California.

MATTESON & WILLIAMSON'S

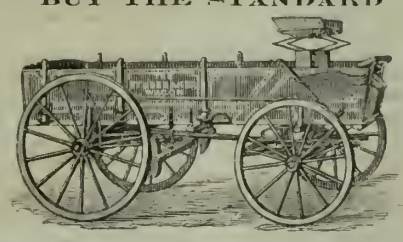
AMERICAN CHIEF GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

BUY THE STANDARD



STUDEBAKER WAGONS.

We keep the Greatest Variety on the Coast, from Light Trotting Buggies to Six-Horse Team Wagons.

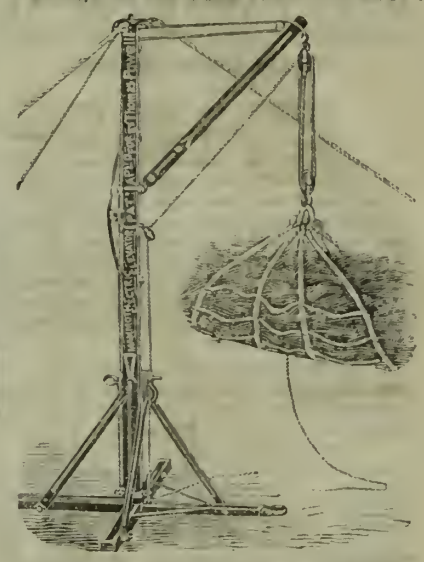
E. F. AMES, Gen. Agent,

Send for Price-List. Sacramento, Cal.

OAKLAND Spring Balance Gang Plow.

Patented and manufactured by H. N. Dalton at the Pacheco Agricultural Implement Works, Pacheco, Cal. Established in 1858. Send for Circular and Price-list.

Powell's Electric Elevator.



The great labor, time and money saving machine. This machine is used in the harvest field to elevate grain, hay and straw from the header box to the stack, only a few seconds being required to elevate a large four horse load. The load is taken up in a center opening net or sling. Patented April 20th, 1875. For description, circular and price list, address

THOS. POWELL, Patentee, Stockton, Cal.

Or H. C. SHAW PLOW CO., Stockton, Cal.

The Famous "Enterprise"

(PERKIN'S PATENT)

Self-Regulating, Farm Pumping, Railroad and Power

WINDMILLS,

Pumps & Fixtures,

Have been in use in California for five years. Over 500 sold in the towns and farming districts of California. All Mills guaranteed. Send for circulars containing sectional and other illustrations, and further description, to

ISRAEL HORTON, Gen'l Ag't Pacific Coast,

Livermore, Alameda County, Cal.

Marster's Self Regulating
FEEDER

For Threshing Machines,

Is the only Feeder manufactured that feeds without moving all the straw in a body, consequently gives a more regular feed than it is possible to obtain with a draper feeder; it feeds the whole length of the cylinder; it is easily changed to feed fast or slow as desired; saves the labor of two men and does not require an experienced tableman to feed it. The separator needs no alteration with the exception of the removal of feed board to secure it in position, and does not have to be taken off when moving. It requires but little power to run it, and has no complicated parts liable to get out of order. Its success having been fully demonstrated, I cordially invite all parties interested to call and judge of its merits. For full particulars address

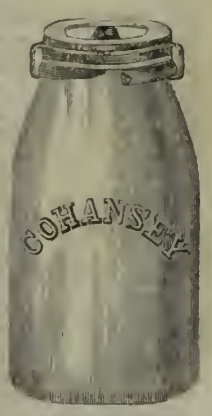
E. J. MARSTERS.

Stockton, Cal.

Works, Corner California and Sonora Streets.

COHANSEY GLASS TOP
FRUIT JARS.

FRUIT IN CONTACT WITH GLASS ONLY.



Elastic Pressure by Spring Clamps on Shoulder Joint.

The Screw Clamp turns freely on Cover and Inclines, and tightens the Jar quickly and is Easily Tested.

Easily opened and closed, without wrench or tool.

Every Jar being inspected, there is no trouble in using.

The Handsomest and Best Glass Lid Fruit Jar.

COHANSEY GLASS MF'G CO.,

N. W. Cor. Third and Arch Sts., Phil'a

REDDINGTON & CO.,

Wholesale Agents, - - - San Francisco, Ca

GEO. W. SWAN. GEO. W. WEIDLER. WM. HIGBY.

UNION BOX FACTORY,

GEO. W. SWAN & CO.,

114 to 124 Spear Street, between Mission and Howard. - - - - - - - San Francisco, Cal.

ATTENTION, FRUIT GROWERS!

One Pound "Swan & Co's. Patent" Strawberry Baskets, $10. One Pound Tin Top Strawberry Baskets, $10. One Pound Square Strawberry Baskets in Shook, $5. One Pound "Swan & Co's. Patent" Raspberry Baskets, $10. One Pound Tin Top Raspberry Baskets, $10.

WE MANUFACTURE ALL KINDS OF BOXES AT BOTTOM PRICES.

HARVESTING MACHINERY,

MOWERS—Wood's Eagle, Peerless & Clipper.

REAPERS—RUSSELL'S PEERLESS.

HEADERS—Haines' Genuine Single Gear.

SEPARATORS AND POWERS.

Chicago Pitts, with End and Side Shake, with Pitts' 10 and 12 horse-powers, the best and strongest machines in market.

Steam Engines.

ENRIGHT'S STRAW BURNER, the latest and best for utility and economy. Capacity, 15 to 18 horse. MANSFIELD PORTABLE ENGINES, for wood or coal; 10 horse.

LYMAN'S SELF-FEEDER.

Invented by a practical thresher. Best in the market. Price only $150. It surpasses all others in durability and simplicity of construction. Can be applied to any Separator in a few hours, and taken off in 15 minutes. It is guaranteed to give satisfaction or no pay.

FULL SUPPLY OF "EXTRAS" FOR ALL OUR MACHINES.

Linforth, Kellogg & Co.,

Nos. 3 and 5 Front St., San Francisco, Cal.

BEFORE PAINTING YOUR HOUSES

Send for Sample Card and Circular and Carefully Examine the

AVERILL CHEMICAL PAINT,

MIXED READY FOR USE.

This Paint is prepared in liquid form, READY FOR THE BRUSH. It requires no addition of oil or spirits. It is composed of the best materials known to the trade—Pure Linseed Oil, Strictly Pure White Lead, Pure Zinc, and the finest of coloring matter for tinting. It is the BEST, CHEAPEST, MOST DURABLE AND BEAUTIFUL PAINT IN THE WORLD. Is just what is wanted by every farmer, mechanic and everybody who has a house, fence, barn, or wagon to paint. Requires no skilled labor, as any one can apply it who can handle a brush. It is put up in cans of any required size, from a quart to five gallons, and is SOLD BY THE GALLON. It gives a firm, elastic and brilliant glossy finish, and will neither crack, peel or wash off, like most paint in common use, but is proof against rainstorms and all action of the elements. Buildings painted with this paint five years ago look fresh and like new to-day and will need no more paint for years. Of no other paint can this be said and proved.

The Averill Chemical Paint Company supply a long-felt want. They not only furnish a Paint more lasting, handsomer, and at the same time cheaper than the best of others, but it is in a liquid form—white and all the fashionable and most exquisite shades—ready for the brush. So that farmers, in fact everybody, can be their own painter if necessary. Indeed, all the buildings upon which the Averill Chemical Paint has been applied, are marvels of beauty.—*Christian Union.*

We know of no subject of such importance to householders as that of a good, handsome, durable paint for their dwellings. Within the past few years we have watched the progress of the Averill Chemical Paint and have had frequent opportunities to test it fully. We think it just the article to supply the need, and give it our hearty endorsement.—*N. Y. Independent.*

From the Thousands of Testimonials sent us, we select the following, which we present for your careful consideration:

A PAINT FOR FARMERS.—Prof. J. B. Turner, Jacksonville, Ill., is a man of great practical knowledge and experience; hence, we attach a great deal of value to the following, from his pen, which we find in the *Prairie Farmer:*

"Some two years ago I sent for and got from a barrel to a barrel and a half of Averill Chemical Paint, of light dun color, which I thought would suit me well enough for all work—houses, doors, blinds, fences, bee-hives, wagons, tools and all. I put two coats upon my residence here, and run over three or four of my smaller farm houses on my farms. With what was left I painted my bee-hives, wagons, wheelbarrows, rollers, harrows, fences, etc., etc. and on all these buildings, implements, tools, gates, etc., the paint is as hard and glossy to-day, so far as I can see, as it was a month after it was put on, and bids fair to hold its own at least for five years to come, (if not ten of them,) better than ordinary white lead and oil does for even two years.

"I have watched it now for about two years with interest and care, and have never found a single spot where it peeled, cracked, or chalked off, as our other paints do. Others who have used this paint like it equally as well. But the point is, I can take one and the same keg and brush, and go over all my buildings, wagons and tools, with no needless waste of paint, brushes or time. It is quite as good for inside finish, as it leaves a coat that shines and washes like glass."—*Moore's Rural New Yorker.*

THE AVERILL PAINTS.—In reply to some inquiries of our readers, we would state that we have given these paints, prepared by the Averill Chemical Paint Company, a full trial, and they appear to possess all that is claimed for them; spreading easily, adhering well, drying soon, and imparting handsome shades of color to the surface covered. Farmers and others who do their own painting, may avail themselves of the convenience of purchasing these paints, of any desired shade, already mixed for use, at a very reasonable price.—*Cultivator and Country Gentleman.*

PLACERVILLE, October 7, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your letter I have to state that for more than six years I have dealt in and used your paint. I have during that time carefully observed its application and use, and from practical knowledge can certify to its unrivalled excellence. During my six years' acquaintance with it, there has not come to my knowledge a single instance of failure in any case where it has been used. All to whom I have supplied it unite in commending it for its superior claims over all other paints now in use. The Averill Paint externally used, or, in other words, exposed to the action of the weather, neither runs off nor changes color, as do other paints, and will retain its freshness and adhesive property for years. Pure lead and oil will in a short time become dry, and are easily rubbed off; the loss of oil leaves the lead in a dry, oxidized state. As a matter of economy the claims of the Averill Chemical Paint to popular appreciation and general use are beyond question. A house properly painted with it once will be better preserved, and present a neater appearance at the expiration of seven years, than it would if twice coated with lead and oil paints now in use. There can be no question, then, that to use it is both labor-saving and economical. So well assured and convinced am I of its established right to this distinction over all kinds, that had I fifty houses of my own to be painted, the "Averill" alone should be my choice and used.

Yours, very truly, S. J. ALDEN, Druggist.

UNIVERSITY OF CALIFORNIA, BERKELEY, August 16, 1875.

TO THE CALIFORNIA CHEMICAL PAINT CO: Gentlemen—In reply to your note of the 13th inst., I willingly state that the work done by you in painting the exterior of the North Hall or College of Letters is in every way satisfactory, and the appearance of the building since it was painted excites the favorable comment of all who have seen it. As I have had occasion to use the Averill Paint before, my experience has been such that I prefer it to any and all others when properly applied. I am very truly yours, ROBT. E. C. STEARNS.

Sample Card of Colors Sent Free on Application. Be Sure and Write for One and Examine for Yourself before Buying Any Other.

CALIFORNIA CHEMICAL PAINT CO.

117 PINE STREET, SAN FRANCISCO.

INDEX TO VOLUME XI

—OF THE—

PACIFIC RURAL PRESS,

From January to July, 1876.

PAGE.

A

Air Cooler..... 90
Air, Poisoned.....359
A Happy Couple..... 64
†A Wish.....215
An Everyday Story.....374
Agricultural Progress in England..... 66
Agr in Public Schools, 19, 35.
Agr in Legislature, 81, 97, 153, 185, 193, 209, 233.
Agr in Japan.....104, 392
Agr in Chile.....258
Agr, Prizes in..... 2
Agr in South Australia..145
Agr Society, State 81, 88, 94, 104, 184, 280, 392
Agr at University...265, 296, 387.
Agr About Reno.....290
Agr Improvements.....337
Agr Education in Germany, 338, 354.
Alameda Avenue..... 2
Alameda County .6, 37, 69, 85, 117, 133, 149, 165, 213, 309, 325, 341, 357, 373.
Alfalfa Hay 98
Alfalfa, Uses of..... 82
Alfalfa, Water on.....369
Alkali Soil, Analysis....290
Almond Tree, Pest on... 9
Almond..... 25
Alpine County..... 69
Amador Co..69, 101, 325, 341, 357, 373.
Amusement.....183
Angora Goats.67, 106, 133, 227, 265, 345, 354.
Animals, Language.....166
Ants.....280
Ants, Honey.....360
Aphis, Woolly 280
Apoplexy, Errors Concerning..... 39
Apparatine..... 42
Apprentice, Advice to.. 55
Apricots..... 408
Arizona Farming....108, 204, 277.
Around the Bay.....297
Astronomy, Gleanings from.....150, 230

B

Baby's Soliloquy 134
Babies..... 70
†Baby, My Neighbor's.. 86
†Baby Land..... 87
Baby, Waking.....342
Bags.....73, 158
Bag Marking ink.....138
Bananas..... 27
Barrel, Improved..... 26
Battery, New Electric..138
Beans, How to Bake.... 89
Bear, Story of..... 23
†Beautiful Things.....262
Beds and Bedrooms.....215
Bees.....41
Bees, How far go for Honey..... 10
Bees How Fill a Hive.. 19
Bees in San Diego..... 50
Bees, Books on..... 73
Bees, Practical Hints... 99
Bees, Introducing Queens.....131
Bees Swarming....222, 302, 403.
Bees, Parasites on.....339
Beer, Condensed..... 74
Beet Sugar.....104, 140
Berkshire Association..369
Beverages, Domestic....134
Bible Influence.....167
Birds as Ornaments.....132
Blackberry, Aughinbaugh 73
Blindness, Facts About..134
Blindness, Treatment for.....371
Bodies, Falling..... 58
Boiler Incrustation..... 68
Books, New..12, 76, 172, 268
Borers.....179, 248, 371
Botanical Excursions 146, 210, 226, 274, 322, 386.
Botany, Cal.....392
Borax for Colds..... 23
Boys, Short Talk With.. 7
Boys' Word for.....71, 375
Boys, Getting up.....151
Boys, Farmers'.....278
Boys and Girls, To..279, 310
Box Factory, Swan & Co.129
Bowels, Regulating 215
Bread Making.....39, 263
Breakfast, How to.....151
Breeding for Useful Qualities..... 94
Breeding for Dairy..122, 226
Breeding, In and In ...202
*Buckeye Reaper.....256
*Buggy, Oppenheim ..177
Bud, How to Know a Good..... 2
Burns, Cure for..... ...327
Burrs, Weight of.....338
"Business".....407
Butte Co..5, 21, 50, 69, 85, 101, 165, 213, 229, 277, 357.
Butter Making....3, 83, 323
Butter, Improving Spoiled..... 71
Butter, Streaked.....115
Butter, To Preserve.....168
Butter, Quality of Cal...360
†By and By.....118

C

Cabbage Lice.....280, 296
Cabbage, Preparing for Table..... 39
Calaveras County..... 181
†Cantata, Centennial....294
Camels in Nevada..... 18
Candy.....262
Candles, Pulmonic..... 67
Carve, How to..... 7
Carp Culture..... 24
Carrots, Cooking.....21
Castor Bean..... 9
Caterpillars.....376
*Cathedral Rocks 30
Cat Mail Carriers.....343

* Illustrations. † Poetry.

PAGE.

Eucalyptus Growing.113, 178, 184, 204, 248, 259.
Eucalyptus, Insectifuge.177
Evaporation.....264
Evergreens, Growing... 89
Eyesight..... 71
Experience..... 279

F

Familiar Things, Hints on.....138
Family, A Ruined..... 38
Family Journal.....342
Farm Figures.....195
Farming, Diversified....200
Farming, Mountain.....281
Farmer, What Constitutes.....102
Farmers' Ins Co.....68, 101
Farmers, Support Your Paper..... 1, 6
Farmers, Write, etc.....290
Farm House Chat, 54, 118, 166, 214, 294, 326.
Fast Train.....364
Father of His Country..120
Fear.....247
Feet, To Avoid Wet..... 42
Feet, Keep Warm.....247
Fence Law.....339
Fence, Rabbit Tight.... 2
Fertilizers for Fruit....338
Fever, Typhoid and Remittent.....108
Fiber of Broom Plant... 42
Figs in California.....355
Filbert, The..... 25
Fish, The Art of Frying. 23
Fish, Cal, for the Centennial.....124, 281
Fire, Gales Produced by. 42
Fire, Guard Against 328,353
Flavorings 343
Flax Culture.....216
Fleeces, Weight of.....122
Floral Letter.....407
Food, Common Sense View of.....22, 167
Food, Treatment of..... 87
For Boys and Girls..... 87
Forests, Value of 339
Forestry..... ....161, 403
Foul Brood....174, 275, 308
*Frank Bros & Co 113
Fresno Co..21, 69, 98, 117, 132, 149, 210, 293, 309, 325, 373, 389.
Friends, Praise Work of 86
Frost Bite..... 55
Frost in Florida.....104
Frost, Guard Against....248
265, 322
Fruit Drier 341
*Fruit Drier (Dietz)....271
*Fruit Drier (Cassidy's) .329
*Fruit Drier (Keeler's)..361
*Fruit Drier (Faulkner's)377
Fruit Drier (Hulburd)..385
Fruit Drier (Champion)392
Fruit Driers, Difference.....40
Fruit Co, San Jose.....274
Fruits, Hints for Ship'g.387
Fruit Growing....25, 40, 41, 227, 233.
Fruits, Cal for Army.... 81
Fruit Nomenclature.... 80
Fruit Ladder..115, 132, 163
Fruit Growers' Ass'cn of Florin.....116
Furnaces, Roman Iron..106
Furnace, Bruckner..... 65
Furniture, Home Made..247
Furnitnre, Mahogany... 18

G

Garden of the Farm.... 88
Garden.....167
Gardens, Make.....402
Gardon in Mountains ...226
Geological Survey.....105
Gestation, Periods of....202
*Gordon, James E.....113
Girls, Our..... 39
Glenn, Dr H J.....289
Glove Manufacturing...281
Gold..... 10
Golden Mean.....278
Goosebone, The.....119
Gophers...105, 116, 121, 275
Graham Flour.....266
Grain, Yield in Mendocino..... 17
Grain Growers, English 24
Grange Addresses.....276
Grange, Master's Decisions .52, 85, 132, 148, 164, 340, 388.
Grange in Englaud...52, 132, 211.
Grange, Indiana Ag'cy..117
Grange Work and Critics 148
Grange, Laws of..... 68
Grange Directory....84, 164
Grange, Stanislaus Pomona.....100, 307
Grange, Nevada Pomona 100, 260.
Grange, Value of.....388
Grange, Right Kind of..100
Grange, Decision of Appeals.....100
Grango Song Books.....116
*Grango Centennial Encampment...116, 212, 340
Grange in Canada.....117
Grange, Old People in..132
Grauge, Officers Nat'l,.. 4
Grange, Proceedings of National 36
Grange, New Officers.... 52
Grange, Election of Officers..4, 20, 36, 53, 69, 85, 101, 117, 132, 148, 180, 196, 212, 228, 340, 356.
Grango, Beautify.....197
Grange Constitution 212, 340.
Grange, Social Order ...228
*Grangers' Building...36, 65
Grangers' Bank.....68, 84
Grangers' Business Association,116, 148, 276, 372.
Granges, The Press.... 20
Granges, Lady Officers 20, 116, 212.
Granges in Idaho..... 55
Granges in El Dorado Co..... 85
Granges, From the..4, 20, 36, 62, 68, 85, 100, 116, 148, 165, 180, 196, 212, 2-8, 244, 269, 276, 292, 308, 324, 340, 356, 372, 388.
Granges, Pomona.. .165
Granite Hill..... 98
Grape Culture and Grafting.....403
*Grape, Brighton.....209
Grape Vines, Knots on.137

PAGE.

*Grape Tree of Santa Barbara.....137
Grapes, Bunch of Sriana.....264
Grapes, Fresh.....265
Grape Flea Beetle.....392
Grasses, The..... 99
Grasshopper Traps.....328
Guadalupe 50
Guano..... 57
Guests, How to Treat... 86
Gum Chewing.....107

H

Habits, Formation of ... 58
Hambletonian.....307
Handkerchief 70 Years Ago.....145
†Happy Thoughts.....374
Hands, Care of 151
†"Half Way Doin's".....246
Half Moon Bay.....408
Hall, Dr. W. W.....359
Harvest, Cornering.....385
Harvest Hands.....200
*Harvest Scene, Cal.....289
Hay Press, Price.....313
*Hay Press, Dodge.....337
*Hay Press, Perpetual..353
Headache, Sick..... 10
Hedge, Cypress.....137
Hedge, Pyracanth.....147
Health, Financial Equivalent of..... 55
"He Says He Will".....135
Hides, Branded.....140
Hogs, Breods of..... 58
Hogs, Concerning...86, 114
Hog, The Farmer's.....226
Home, 21, 86, 134, 166, 215, 278.
Homestead, Build Up...103
Homestead Law.....108
Honey, Marketing.....232
Honey, Premium..... 50
Honey, Extracting.....254
Honey in San Diego.....339
Hops, California.....268
Hops, Preserving..... 90
Hops at Centennial.....249
Horse, Breeding..... 58
Horse, California..... 67
Horse, Care of 170
Horseless World ...119, 170
Horse, Management of..126
Horse, Age of.....126
Horse, Training Colts, 141, 206.
Horse, Exportation of...131
House Building..... 70
House Planning..... 214
Housekeepers, Responsibility of..... 71
Housekeeping, Economy, 151, 247.
Humboldt County, 179, 229, 373.
Hungry Hollow..... 60
Hungarian Statesman...327

I

Idea, A Good..... 68
Improvement, Self.....326
Immigrant Aid Ass'n....116
Index, etc..... 408
Indian Peculiarities....119
Insect Commission..10, 113
In Memoriam, 6, 37, 69, 101, 132, 149, 165, 180, 196, 213, 229, 244, 292, 388.
Intellect, Limit of.....150
Iodine, Use of..... 10
Irrigation, Progress in..114
Irrigation, Winter..... 88
Irrigation, West Side, 97, 369.
Irrigation, Underground, 121, 168, 364, 392.
Irrigation, Hillside.....136
Irrigation, Shower..... 170
Irrigation in India.....225

J

Joist, Fire Proof.....140

K

Kern County, 5, 21, 37, 60, 69, 85, 117, 132, 165, 197, 213, 229, 244, 277, 293, 325, 373, 389.
Kindness, Power of.....390
Kiss, Death..... 71
Kiss, Fatal..... 23
Kissing, Damages for.... 22
Kitchen, Borgias of..... 50
Kitchen, Summer.....102
Kitchen, Science in.....375
Kitchen, Whitewash for. 65

L

Labor, Hand and Head.. 87
Lactic Acid..... 40
Ladies, Inventive Genius of..... 54
Lake County, 6, 69, 101, 117, 213, 260, 325, 373.
La Graciosa..... 60
Lamb Skins..... 227
Lamp Chimneys..... 10
Lamp Shades.....119
Lands, Mountain..... 17
Lands, Cal Swamp..... 35
Land Decisions.....259
Lands, Sales of, 156, 172, 188, 202, 220, 236, 244, 284, 293, 364.
Lands, Timber.....138
Lassen County, 69, 101, 261, 277.
Laws Desired..... 37
Laughing Children..... 22
Leaves, Skeletonizing....339
Letters, Answering...22, 407
Learn, All Must..... 39
Leather, Dressing for... 82
Levees.....168
Life, Burdens of..... 71
Life, Useful.....198
Lily, Mariposa.....153
Literature, Bad.....199, 231
Little Divers.... 391
Lodi, Rejoicing at.....337
Logan, Death of Dr.....131
Look Ahead..... 24
Loquat.....291
Los Alamos Valley..... 50
Los Angeles County, 6, 21, 37, 60, 69, 85, 101, 117, 132, 149, 165, 181, 197, 244 261, 277, 293, 325, 357, 389
Love, Some One to..... 7
Love, Frankness in..... 70
Lovers, Men as..... 86

M

Magnesia as Fertilizor..258
Manufactures, Cal.....232
Manures.....178
Marble, Stains from... 67
Mariposa County.... 60, 69
Marin County, 101, 181, 213, 244, 261, 325, 341, 357, 389.
Market Garden.....323
Mary Heth and the Law.118

PAGE.

Matanzas, The.....409
Mats, House.....167
Measures for Men.....138
Measuring by Eye.....138
Meat for England..... 1
Meat, Administer'g Raw. 7
Meat, Preserving.....297
Medicine a Science.....375
Mediar.....291
Metric System.....124
Mendocino County, 5, 12, 21, 37, 98, 165, 277, 181, 389.
Merced County, 37, 101, 117, 149, 181, 229, 244, 277, 293, 325, 341, 357, 389.
Miasms.....391
Milk, Condensed.....264
Milk, How Secreted..... 60
Milk Setting.....99, 291
*Mills, Imp'd Grinding. 33
Mill Spindle, Oiling....106
Mill that Boats Minnesota..... 130
Mining Debris Question, 17, 27, 40, 44, 108, 172, 228, 356, 388.
Modoc County.....149, 261
Moisture of Wells.....407
Moles.... .....73 105
†Moneyless Man.....182
Montana.....21, 389
Monterey County, 21, 37, 60, 69, 85, 101, 149, 181, 229, 261, 277, 309, 325, 341, 389.
†Moss..... 214
Mother, My..... 70
Mother and Son..... 87
*Motor, New.....409
Mount Hamilton.....314
Mourning, Sorrows of..103
Mouse, Killed by.....142
Music, Cargo of..... 86
Mustard Seed Oil.....314
†My School Days..... 70

N

Napa County, 6, 21, 60, 101, 117, 197, 261, 293, 341, 367, 373, 389.
Napkins..... 263
Nervousness, Cause of..131
Neuralgia, Remedy.....119
Nevada.....133, 261, 290
Nevada County, 5, 117, 142, 181, 213, 261, 309.
Newspapers 214
Newspaper as an Educator..... 22
Newspaper Holder.....342
*Newspaper Pavillon....355
Newspaper, Duty of.....374
Nurseries, Oakland...83, 49
Nurseries, San Jose.....242
Nut Growing..... 25

O

Oatmeal and Cocoanut.. 87
Old Arm Chair.....278
Olive Oil.....137
Olives.....145
Olive Leaf Disease.....361
Omelet, The.....119
Onions....158, 178, 226, 318
Oranges, Florida..... 8
Oranges from seed..... 34
Orange Hedge.....225
Oranges in Lower Cal...243
*Orange Insect, 268, 280, 296, 345.
Orange Growing.....307
Orchard Culture.....66, 96
Orchard Manuring.....83
Oregon, 21, 76, 94, 133, 172, 181, 213, 293, 389.
Oregon Dairy Figures...321
Ostrich Appetite..... 358
Overland Chat.....390
Overland Road, Improvements..... 34
Oyster, How Grows.....343

P

*Pagan Temple..... 81
Paint.....56, 82
Parks' Dam, 56, 88, 98, 114
Parlor, Average.....166
Patents and Inventions, 12, 27, 44, 60, 76, 94, 108, 124, 140, 156, 188, 204, 220, 236, 249, 268, 284, 300, 313, 332, 348, 364, 377, 396, 409.
Palace of Winter..... 82
Paper, New Process..... 74
Paper Mills..... 89
Pastry Making.....295
Patchouly..... 83
Patrons, Talk to.....196
Pawlonia Imperialis....385
*Pear, Beurre D'Arenberg.....401
Pear, Fox Seedling.....369
Pebrine, Free from..... 97
Pecan as Timber Tree..147
Pea Soup.....215
Peavine Hay.....305
*Peach, Yellow Rare Ripe.....9, 66
*Peach, Stump the World.369
Pencil Drawings, Preserving.....89, 201
Pencils, Analine..... 90
*Perils of the Sea..... 97
Pests.....86, 186
†Peter's Ride to Wedding.....390
Petrified Forest.....306
Pigs, Profit in.....371
Phylloxera, 9, 74, 185, 200, 259, 307.
Pictures, How to Hang .135
Pine Apple, 9, 34, 168, 201
Pioneers, The.....406
Placer County, 5, 37, 41, 117, 129, 197, 217, 290, 325.
Plowing Deep.....179
Plowing Early.....162, 194
Plowing Match.....66, 241
Plumas County, 76, 149, 249
Poisonous Potatoes..... 94
Poisons, Loco..... 82
Poison'd by Lamp Shade. 87
Potatos in England.... 70
Potatoes, Cooking..... 71
Potatoes.....104 148
Poland China Hogs, 34, 73, 137, 201.
Pope's Humor.....406
Poppy Culture.....40
Pork, Cutting Up and Curing..... 3
Pork, Measly..... 57
Pork as Food..... 57
Pork, Yellow..... 119
Poultry, Cures for Ails, 18. 67. 164, 243, 25- 275, 329, 371, 377, 403.
Poultry Interest in U. S. 18
Poultry on the Farm.... 51
Poultry Houses..67, 130, 403

PAGE.

Poultry, Hatching Chickens..... 130
Poultry, Feed for.....163
Poultry Breeds.....202, 243
Practical Questions. ... 98
Press, Mission of 134
Prevention and Cure.... 23
Pre-emption, 137, 184, 259
Product, How to Prepare. 9
Produce the Best..... 8
*Progress, American... 1
Propensity to Fib.....374
Prune, Hungarian....41, 72
Pruning.... ...138, 179, 243
Public Lands, Right to Survey..... 9
*Pump, Horse Power for.281
Pump, Tuttle.....393
Pumpkin Pie, Origin of. 87
*Pumps, A. J. Smith....121
Punctuality..... 39
Putting Things Away... 38
Pyramids, Age and Object..... 98

Q

Queens, Raising.....306

R

Rabbit Hunt..... 76
Rabbit, Welsh..... 71
Railroad Subsidies.....313
Railway Ironclads..... 58
Rainfall..... 2, 120, 184
Raisin Making..131, 145, 186, 204, 210, 243, 259, 280, 291, 403.
Ramie, Uses for.....194
Rats, Plagne of.....408
Reading, a Fine Art.....134
Reading, Vice in..... 24
†Reapers, The..... 6
*Reaper Tongue.....297
Recipes, Domestic..7, 23, 39, 55, 71, 103, 119, 135, 151, 183, 199, 231, 279, 295, 311, 369, 375
Reclamation, Uniform System of.....108
*Rein Holder.....168
Religion We Want..... 54
Rent, Crops for..... 89
Rheumatic Cures... ...167
*Rico, H W., Engine.... 49
*Road Scraper, Haws'... 73
*Road Grador, McCall's.377
Rooms, Expression of..358
Roots Destroyed.....72, 121
Roses, Grafting.....377, 392
Roses Oil from.110, 154, 162
Roseville 322
Routler's Orchard..... 282
*Russell's Reaper.....249

S

Sacking, Duty on..... 1
Sacramento.....169, 185
Sacramento County..37, 201, 213, 229, 244, 261, 294, 321, 341, 357, 370, 373.
Salt Marsh.....105
San Benito County.5, 37, 60, 101, 117, 149, 166, 213, 293, 37 i
San Bernardino County 6, 21, 37, 94, 101, 226, 261, 277, 357, 373.
San Luis Obispo County 60, 76, 149, 197, 213, 261, 277, 293, 325, 341, 373.
Santa Cruz County..21, 76, 82, 94, 101, 165, 213, 325, 373.
Santa Clara County, 34, 44, 60, 76, 229, 373.
San Diego County, 6, 21, 76, 101, 117, 133, 165, 181, 197, 213, 244, 373, 389.
Santa Barbara County. 5, 21, 37, 60, 76, 94, 101, 130, 133, 149, 181, 19 , 213, 229, 242, 2-4, 258, 261, 293, 325, 357, 373, 389.
San Joaquin County. 6, 76, 94 101, 132, 149, 165, 181, 229, 244, 261, 293, 309, 341, 357, 389.
Savings, Value of 198
Seeds, Germination of.. 3
Seeds, Selection in.....120
Santa Maria Valley..... 50
Saving Matches.....390
School, Science in.....140
Scarecrow.....318
Scab.....323
Sea Lions.....124
Selling Out.....306
Sewing Machines.....102
Sewing Society..... 311
Sharon-Shoddy.....120
Shearers, Suggestions..190
Shearing Festival.....321
Sheep, Breeds of.....136
Sheep Disease.....217, 296
Sheep, Long Wool.....306
Sheep Register.....328
Sheep, What to do with.344
Sheep in Western N. Y.361
Sheep, How to Kill.... 2
*Sheep Corral and Dip.385
Sheep Corral....18, 67, 66.
Sheep in Georgia..... 51
Sheep on the Farm... . 51
Sheep, How to Handle. 122
Shoes, Ancient..... 64
*Shoe, Brown's..... ...193
Sierras, Beyond the....402
Siskiyou County..44, 60, 94, 133, 149, 181, 244, 325.
Silence, Magic of.....103
Silk Worms.....274
Skin. The.....133
Sleep 279
Smoke Preventer..... 58
Snakes, Will Saliva kill. 10
Social Misadventures... 55
Social Fallacies.....102
Societies, Secret.....244
Society Beauty.....102
Solano County, 6, 44, 76, 101, 124, 165, 213, 357.
Sonoma County, 6, 12, 44, 60, 108, 124 133, 149, 172 181, 197, 213, 244, 261, 277, 293, 325, 341, 357, 373, 389.
Song, Influence of.....134
Sows, Management of ..110
Sovereigns of Industry. 116
Spiders' Silk.....406
*Squirrel, California....154
*Squirrel Hawk.....201
Squirrel Law..... 270
Squirrel Poisoning.....377
Stanislaus County, 5 21, 60, 94, 108, 124, 141, 204, 213, 229, 261, 277, 309, 325, 341, 373.
Starved to Death..... 87
Steak Broiling.....375

PAGE.

Steam Power, Cost of... 67
Steam Power, Bounty for.....140
Stencil Plates..... 21
Stewart, A. T.....249
Stock, Good and Bad Care..... 51
Stock, Importing..... 51
Stockings, Darning..... 18
†Stockings, Little Brown 55
Stockings, Poisoned....247
Stomach, Arsenic Proof.133
Storm Notes.....141
Strentzel's Fruit Farm.. 34
*Subsoil Plow.....105
Succeed, How to..... 70
Sugar S. I 188
Sugar from Melons 353
Summer Fallowing, 82, 114, 194.
Sunshine for Children... 23
Sunshine.....199
Sunshine, How to Make.359
Sutter County, 44, 76, 149, 172, 181, 204, 213, 277, 325, 373.
Sweepstake Plow Co....217
Sweet Potato, Pest on.. 40
Syrups, Table.....407

T

*Taber's Hay Fork.....321
Table Decorations.....214
Table, How to Set.....311
*Tahiti.....265
Tall Men.....134
Tape Worms..... 7
Tapestry..... 70
Tea Culture.....204
Tea Hour, The..... 23
Temperance Reform.....132
Tempers.....230
Texas as Wheat State....32
The Hand that Rocks the World.....150
Threshers, Notes from.392
Thumb, Index of Contempt..... 22
Tide Lands, Machines for..... 7
Timber, When to Cut... 3
Timber Growth..... 83
Tinware, Mending.....202
Tire, Bursting of 10
Tires, Wide Wagon..140, 161
Tobacco, Chewing..... 2
Tobacco, Curing..... 67
Tobacco Culture..... 137
Tonnage..... 305
Tools, Sharpening..... 26
Toothache, Cure for 135, 199.
Toothache, Greatest....290
†To Thee.....102
Toy Making.....375
Trade Tuition..... 56
Trade Review, Cal.....108
Transportation,..... 179
Treadwell, J. L..... 193
Trees, What Shall We Plant..... 9
Tree Planting..76, 98, 117, 136, 180.
Trial of Ag'l Machines...361
Tulare Co..12, 44, 60, 76, 94, 108, 124. 149 172, 204, 213, 229, 244, 261, 357.
Tuolumne Co..124, 204, 277, 309, 325, 341, 373.
Turkeys.....106, 130, 211
†Two Homes.....310

U

Uncomfortable People... 54
University, State..... 56

V

Value of Straw..... ...337
Vegetables.....231
Vegetation and Health..311
Ventilator, Window.....343
Ventura Co..12, 21, 108, 133, 149, 229, 293, 357.
Vibration, Experiment in..... 6
Vines, Grafting..... 56

PAGE.

Vines, Australian..... 90
Vinegar from Wine...72, 265
Viniculturnl Club....90, 195
Visiting.....310

W

*Wagon, La Belle..... 88
†Waif, A..... 38
Walnut, The..... 25
Water Cure, Origin of... 10
Water Pipes, Freezing.. 18
Water Mains, Cleansing. 90
Water, Purifying...122, 138
Water, How to have Warm 321
Water With the Land.... 97
Washington Territory, 12, 76, 373.
Washington's Birthday.135
Washing with Hard Water.....359
†Washing the Clothes..103
Webster to his Son.....103
Well Boring.....138
Weeds.....408
Weevil.....268
Weight, Selling by..... 25
Wheat, Indian.....296, 325
Wheat Outlook...49, 284, 328.
Wheat, Cal. and Minn,.. 81
Wheat, Treatment of Seed..... 97
Wheat, Cost of in Miun 104
Wheat, Cost of in Cal. 136, 140, 216.
Wheat, Prices of..... 148
Wheat, Russian.....152
Whip, Effect.....170
Wife, the Good..... 6
Wife, How to Choose.... 39
Wife of Franklin..... 55
Wife, Farmer's..70, 102, 310
Wife, Co-operation of... 70
Wife's Love..... 86
Wind Galls..... 57
Wine Growers.....8, 44
Wine Cellars..... 34
Wine, to Make Good....131
Winter Work..... 113
Wise Mrs Swallow 359
Wives, City and Country 262
Woman's Aspiration.... 21
Woman's Idle Moments. 54
Woman's Influence.....262
Women at Centennial 262, 374.
Woman in Society.....151
Woman on Farm...198, 246
Women Lawyers.... ...246
*Wonders, Botanical...137
*Wonders, Little Sea.... 55
*Woodpecker, Golden Winged..... 17
*Wood's Reapers 225
Woodside Papers....38, 294
Wood Preserving.....138
Wool, Combing..... 2
Wool, the Big Fleece.... 18
Wool, Cal Clip of 1875.. 34
Wool Growers Ass'cn.. 51
Wool, California....122, 232
Wool, Lower Cal.....275
Wool Packing.....276
Wool at Centennial.....312
Work and Water..... 408
Workingman, American.140
World, Rising In..... 74
Worrying.....151, 375

Y

Yacob and Donkey.....343
Year, the New..... 8
†Year, the Departing.... 21
Year and the State..... 24
*Yellowstone Scenery, 41 61, 129
Yolo Co..12, 44, 60, 76, 91, 108, 124, 133, 149, 172, 204, 213, 229, 290, 341, 373, 389.
Youthful Spirit.....376
Yuba Co.....44, 181
Yucca..... 217

Z

Zante Currants.....284

DEWEY & CO.,

United States and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly.

Caveats Filed Expeditionsly.

Patent Reissues Taken Ont.

Patents Secnred in Foreign Lands.

Assignments Made and Recorded in Legal Form.

Copies of Patents and Assignments Procured.

Examinations of Patents made here and a Washington.

Examinations Ordered and Reported by TELEGRAPH.

Examinations made of Assignments Recorded in Washington.

Interferences Prosecnted.

Opinions Rendered regarding the Validity of Patents and Assignments.

Re ected Cases taken np and Patents Obtained

Every legitimate branch of the Patent Agency Business promptly and thoroughly conducted.

Send for Circular.